Incident Number: nAPP2416663643

Release Assessment and Closure

Dawson Creek State #002 Layflat Release

Unit C, Section 36, Township 15 South, Range 28 East

API: #30-005-64385

County: Chaves

Vertex File Number: 24E-03166

Prepared for:

Mack Energy Corp.

Prepared by:

Vertex Resource Services Inc.

Date:

December 2024

Received by OCD: 12/11/2024 12:00:41 AM

Release Assessment and Closure
Dawson Creek State #002 Layflat Release
Unit C, Section 36, Township 15 South, Range 28 East
API: #30-005-64385
County: Chaves

Prepared for:
Mac Energy Corp
11344 Lovington Highway
Artesia, New Mexico 88210

New Mexico Oil Conservation Division
508 West Texas Avenue
Artesia, New Mexico 88210

Prepared by:
Vertex Resource Services Inc.
3101 Boyd Drive
Carlsbad, New Mexico 88220

Katrina Taylor — December 5, 2024

Katrina Taylor, B.Sc.
ENVIROMENTAL TECHNICIAN, REPORTING

Date

Sally Carttar — December 5, 2024

Sally Carttar, BA
PROJECT MANAGER, REPORT REVIEW

Date

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Table of Contents

1.0 Introduction 1

2.0 Incident Description 1

3.0 Site Characteristics 1

4.0 Closure Criteria Determination 2

5.0 Remedial Actions Taken 5

6.0 Closure Request 6

7.0 References 7

8.0 Limitations 8

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

In-text Tables

Table 1. Closure Criteria Determination
Table 2. Closure Criteria for Soils Impacted by a Release – Depth to Groundwater <50 feet bgs

List of Figures

Figure 1. Characterization Sampling Site Schematic
Figure 2. Confirmatory Sampling Site Schematic

List of Tables

Table 3. Initial Characterization Sample Laboratory Results – Depth to Groundwater <50 feet bgs
Table 4. Confirmatory Sample Laboratory Results
Table 5. Backfill Sample Laboratory Results

List of Appendices

Appendix A. NMOCD C 141 Report
Appendix B. Closure Criteria Research Documentation
Appendix C. Daily Field Reports
Appendix D. Notifications
Appendix E. Laboratory Data Reports and Chain of Custody Forms

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

1.0 Introduction

Mack Energy Corp (Mack) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a produced water release that occurred on June 14, 2024, at Dawson Creek State #002 Layflat Release API: #30-005-64385 (hereafter referred to as the "site"). Mack submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) on June 14, 2024. Incident ID number nAPP2416663643 was assigned to this incident.

This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of the release site will be completed following remediation activities as per NMAC 19.15.29.13.

2.0 Incident Description

The release occurred on June 14, 2024, due to a vehicular accident involving a layflat line. The incident was reported on June 14, 2024, and involved the release of approximately 255 barrels (bbl.) of produced water into the pasture. Approximately 25 bbl. of free fluid was recovered during initial clean-up. Additional details relevant to the release are presented in the C-141 Report.

3.0 Site Characteristics

The site is located approximately 30 miles northeast of Artesia, New Mexico (Google Inc., 2024). The legal location for the site is Unit C, Section 36, Township 15 South and Range 28 East in Chaves County, New Mexico. The release area is located on State surface. An aerial photograph and site schematic are presented on Figure 1. Coordinates of the site are 32.7914047, -104.2268219.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production The following sections specifically describe the release area at the site or in proximity to the lease road (Figure 1).

The surrounding landscape is associated with plains and terraces with elevations ranging between 2,842 and 5,000 feet. The climate is semiarid with average annual precipitation ranging between 8 to 13 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to black grama. Black grama, dropseeds, and a secondary component of blue grama dominate the historical plant community (United States Department of Agriculture, Natural Resources Conservation Service, 2024). Limited to no vegetation is allowed to grow on the right-of-way and access road.

The surface geology at the site primarily comprises Qp – Piedmont alluvial deposits (New Mexico Bureau of Geology and Mineral Resources, 2024) and the soil at the site is characterized as loamy (United States Department of Agriculture,

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Natural Resources Conservation Service, 2024). Additional soil characteristics include a drainage class of well drained with a runoff class of medium.

The karst geology potential for the site is medium (United States Department of the Interior, Bureau of Land Management, 2018).

4.0 Closure Criteria Determination

The nearest active water well to the site is listed in the New Mexico Office of the State Engineer (NMOSE) database as a livestock water well located approximately 3.35 miles northwest of the location (United States Geological Survey, 2024). Data from the 2016 driller log recorded a depth to groundwater of 125 feet below ground surface (bgs). Information pertaining to the depth to ground water determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream 827 feet from the site (United States Fish and Wildlife Service, 2024).

Closure Criteria will be to the most stringent concentrations as there is no depth-to-water data within 0.5miles.

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Released to Imaging: 2/19/2025 2:59:10 PM

Table 1. Closure Criteria Determination			
Site Name: Dawson Creek State #2 Layflat Release			
Spill Coordinates: 32.978584, -104.089989		X:585031.44	Y:3649280.35
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	**125**	feet
	Distance between release and nearest DTGW reference	17,703	feet
		3.35	miles
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	827	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	9,269	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	52,024	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	6,129	feet
	ii) Within 1000 feet of any fresh water well or spring	6,129	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	315	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	**115,503**	feet
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
	Distance between release and nearest unstable area	**2,640**	feet
10	Within a 100-year Floodplain	100-500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	**9,728**	feet
11	Soil Type	Loamy	
12	Ecological Classification	R070BD004NM Sandy	
13	Geology	Qp - Piedmont alluvial deposits	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 2.

Table 2. Closure Criteria for Soils Impacted by a Release DTGW <50 feet bgs

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

bgs – below ground surface
TDS – total dissolved solids
TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics
BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

An initial site inspection of the release area was completed on June 18, 2024, which identified the area of the release specified in the initial C-141 Report and estimated the approximate volume of the release. The impacted area was determined to be approximately 17,145 square feet. The Daily Field Report associated with the site inspection is included in Appendix C.

Remediation efforts began on September 5, 2024, and were finalized on November 6, 2024. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 180 sample points and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and electrical conductivity/silver nitrate titration (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to a depth of 3 to 9 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. DFRs documenting various phases of the remediation are presented in Appendix C.

Notifications that confirmatory samples were being collected were provided to the NMOCD as required and are included in Appendix D Confirmatory composite samples, each representative of no more than 200 square feet, were collected from the base and walls of the excavation. A total of 188 confirmation samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Eurofins in Albuquerque, Mexico, under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Confirmatory sampling laboratory results are presented in Table 4 and the laboratory data reports are included in Appendix E. Final confirmatory samples collected and analyzed were below closure criteria for the site. Wall sample WS24-05 was excavated after it was analyzed over criteria, as shown in the Daily Field Report in Appendix C, but was not renamed due to a labeling error.

Received by OCD: 12/11/2024 12:00:41 AM

6.0 Closure Request

The release area was fully delineated and remediated by November 6, 2024. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations “under 50 feet to groundwater”. The site was backfilled with locally sourced uncontaminated soil and will be seeded with a 50/50 mix of New Mexico State Land Office “L” and “SL” seed mixes. Based on these findings, Mack Energy Corp requests that this release be closed.

Should you have any questions or concerns, please do not hesitate to contact Sally Carttar at 575.361.3561 or Scarttar@vertexresource.com

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

7.0 References

Google Inc. (2024). *Google Earth Pro (Version 7.3.3)* [Software]. Retrieved from https://earth.google.com

New Mexico Bureau of Geology and Mineral Resources. (2024). *Interactive Geologic Map*. Retrieved from https://maps.nmt.edu/

New Mexico Department of Surface Water Quality Bureau. (2024). *Assessed and Impaired Waters of New Mexico*. Retrieved from https://gis.web.env.nm.gov/oem/?map=swqb

New Mexico Energy, Minerals and Natural Resources Department. (2024). *OCD Permitting - Spill Search*. Retrieved from https://wwwapps.emnrd.nm.gov/ocd/ocdpermitting/Data/Spills/Spills.aspx

New Mexico Mining and Minerals Division. (2024). *Coal Mine Resources in New Mexico*. Retrieved from https://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=5f80f3b0faa545e58fe747cc7b037a93

New Mexico Office of the State Engineer. (2024a). *Point of Diversion Location Report - New Mexico Water Rights Reporting System*. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html

New Mexico Office of the State Engineer. (2024b). *Water Column/Average Depth to Water Report - New Mexico Water Rights Reporting System*. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html

New Mexico Office of the State Engineer. (2024c). *Well Log/Meter Information Report - New Mexico Water Rights Reporting System*. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/meterReport.html

New Mexico Oil Conservation Division. (2018). *New Mexico Administrative Code – Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.

United States Department of Agriculture, Natural Resources Conservation Service. (2024). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

United States Department of Homeland Security, Federal Emergency Management Agency. (2024). *FEMA Flood Map Service: Search by Address*. Retrieved from https://msc.fema.gov/portal/search?AddressQuery=malaga%20new%20mexico#searchresultsanchor

United States Department of the Interior, Bureau of Land Management. (2018). *New Mexico Cave/Karst*. Retrieved from https://www.nm.blm.gov/shapeFiles/cfo/carlsbad_spatial_data.html

United States Fish and Wildlife Service. (2024). *National Wetland Inventory - Surface Waters and Wetlands*. Retrieved from https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

United States Geological Survey. (2024). *National Water Information System: Web Interface*. Retrieved from https://waterdata.usgs.gov/nwis

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

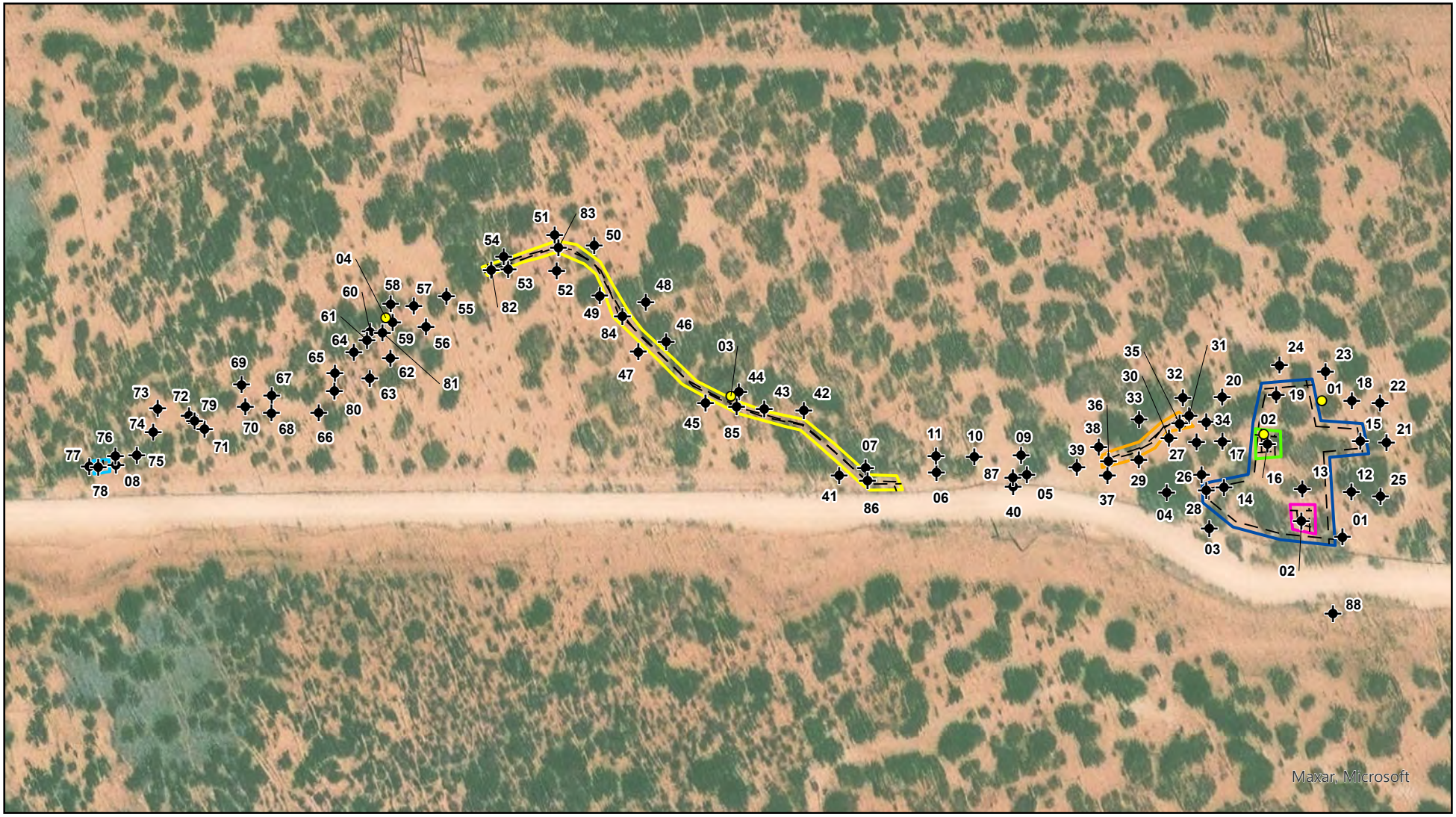
8.0 Limitations

This report has been prepared for the sole benefit of Mack Energy Corp. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and the New Mexico State Land Office, without the express written consent of Vertex Resource Services Inc. (Vertex) and Mack Energy Corp. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

Released to Imaging: 2/19/2025 2:59:10 PM

FIGURES



Borehole (Prefixed by "BH24-")

Surface Sample (Prefixed by "SS24-")

Proposed Excavation 1 to 2' bgs (~4449 sq. ft. | 915 ft.)

Proposed Excavation 2 to 2' bgs (~1012 sq. ft. | 197 ft.)

Proposed Excavation 3 to 2' bgs (~11 528 sq. ft. | 518 ft.)

Proposed Excavation 4 to 2' bgs (~156 sq. ft. | 50 ft.)

Proposed Excavation 1 to 4' bgs (~491 sq. ft. | 90 ft.)

Proposed Excavation 2 to 4' bgs (~531 sq. ft. | 92 ft.)

VERTEX

0 25 50 100 ft

NAD 1983 UTM Zone 13N

Date: Aug 08/24

Map Center:
Lat/Long
32.97867°,-104.088205°

N

Characterization Sampling Site Schematic
Dawson Creek State #2

FIGURE:
1

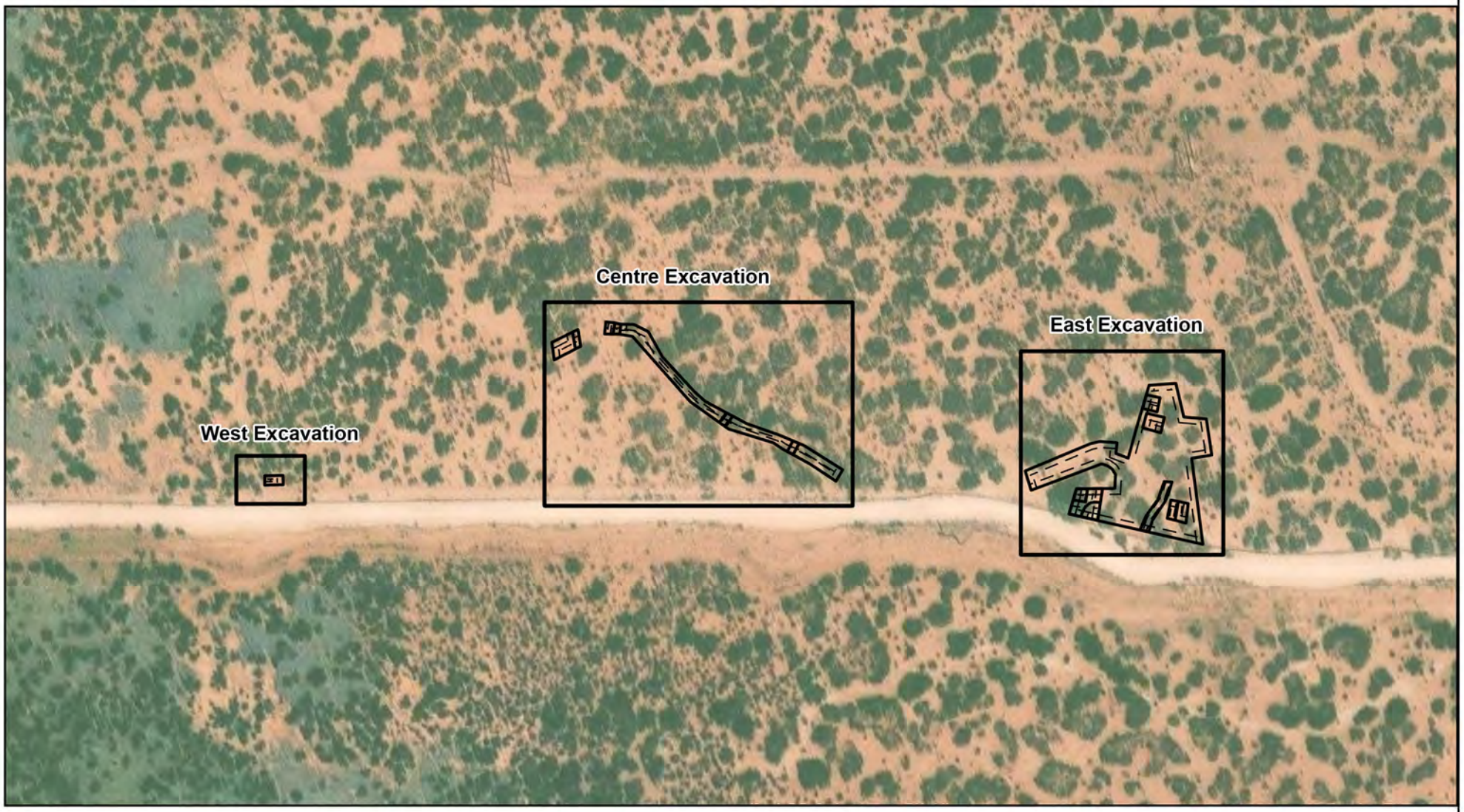
MACK Energy Corporation

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2023. Site features from GPS, Vertex Professional Services Ltd., 2024.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects\ US PROJECTS\Mack Energy\2024\24E-03166\Project\24E-03166.aprx



Excavation

VERTEX

0 25 50 100 ft

NAD 1983 UTM Zone 13N

Date: Nov 15/24

Map Center:
Lat/Long
32.978769°,-104.088235°

N

Confirmation Site Overview Schematic
Dawson Creek State #2

FIGURE:
2

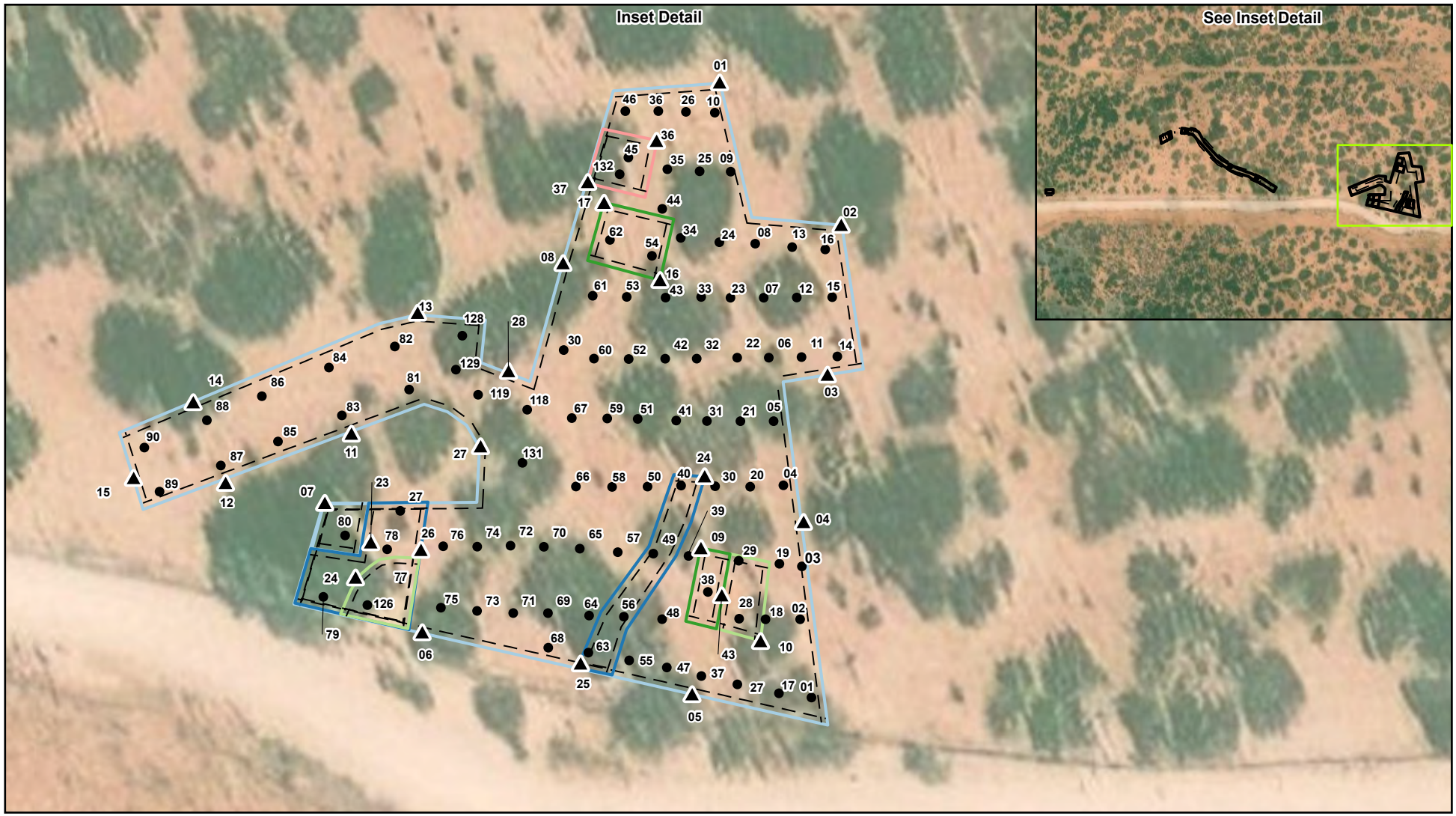
MACK Energy Corporation

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2023. Site features from GPS, Vertex Professional Services Ltd., 2024.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects\ US PROJECTS\Mack Energy\2024\24E-03166\Project\24E-03166.aprx



● Base Sample (Prefixed by "BS24-")

▲ Wall Sample (Prefixed by "WS24-")

Excavation to 3' bgs (~18,649 sq.ft. | 928 ft.)

Excavation to 4' bgs (~1,435 sq.ft. | 281 ft.)

Excavation to 5' bgs (~597 sq.ft. | 142 ft.)

Excavation to 6' bgs (~576 sq.ft. | 140 ft.)

Excavation to 9' bgs (~275 sq.ft. | 66 ft.)

VERTEX

0 25 50 ft

NAD 1983 UTM Zone 13N

Date: Nov 26/24

Map Center:
Lat/Long
32.978571°,-104.086551°

N

Confirmation Sampling Site Schematic
Dawson Creek State #2

FIGURE:
2a

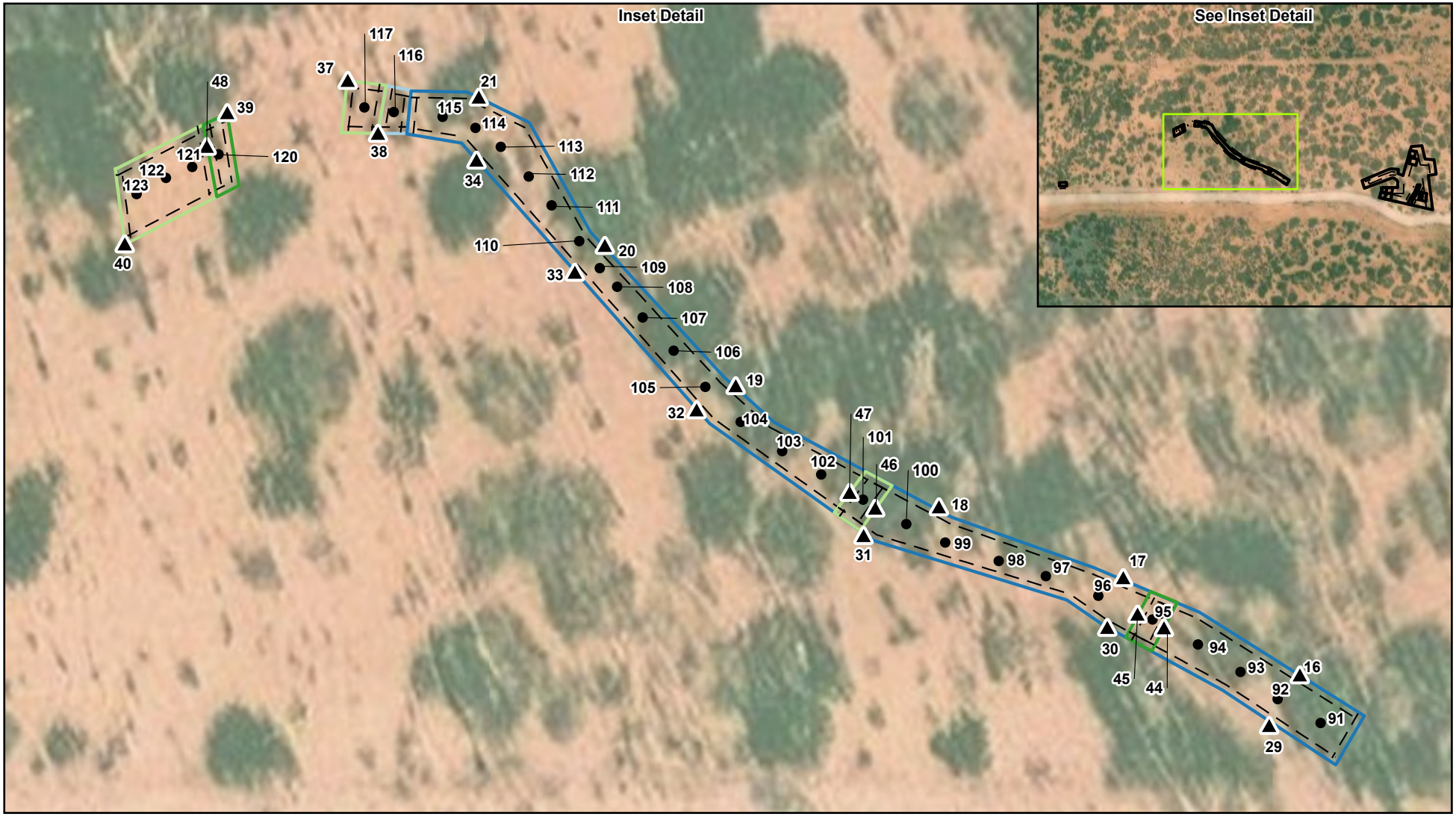
MACK Energy Corporation

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2023. Site features from GPS, Vertex Professional Services Ltd., 2024.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects_US PROJECTS\Mack Energy\2024\24E-03166\Project\24E-03166.aprx



● Base Sample (Prefixed by "BS24-")

▲ Wall Sample (Prefixed by "WS24-")

Excavation to 2' bgs (~91 sq.ft. | 40 ft.)

Excavation to 3' bgs (~4,005 sq.ft. | 653 ft.)

Excavation to 4' bgs (~776 sq.ft. | 187 ft.)

Excavation to 5' bgs (~242 sq.ft. | 97 ft.)

VERTEX

0 25 50 ft

NAD 1983 UTM Zone 13N

Date: Nov 26/24

Map Center:
Lat/Long
32.978797°,-104.088373°

N

Confirmation Sampling Site Schematic
Dawson Creek State #2

FIGURE:
2b

MACK Energy Corporation

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2023. Site features from GPS, Vertex Professional Services Ltd., 2024.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects_US PROJECTS\Mack Energy\2024\24E-03166\Project\24E-03166.aprx



● Base Sample (Prefixed by "BS24-") ▲ Wall Sample (Prefixed by "WS24-") Excavation to 4' bgs (~230 sq.ft. | 64 ft.)

VERTEX

0 25 50 ft

NAD 1983 UTM Zone 13N

Date: Nov 26/24

Map Center:
Lat/Long
32.978564°,-104.089946°

N

Confirmation Sampling Site Schematic
Dawson Creek State #2

FIGURE:
2c

MACK Energy Corporation

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2023. Site features from GPS, Vertex Professional Services Ltd., 2024.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects\ US PROJECTS\Mack Energy\2024\24E-03166\Project\24E-03166.aprx

TABLES

Client Name: Mack Energy Company
Site Name: Dawson Creek State #2
NMOCD Tracking #: NAPP2416663643
Project #: 24E-03166
Lab Reports: 885-7606-1, 885-8086-1, 885-8087-1, 885-8088-1, 885-7876-1, 885-7927-1, 885-8372-1, 885-8373-1, 885-8504-1, and 885-8505-1

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BH24-01	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-01	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-01	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-02	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	**4800**
BH24-02	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	99
BH24-02	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	**700**
BH24-02	6	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-03	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	200
BH24-03	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	170
BH24-03	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	210
BH24-04	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-04	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-04	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-05	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-05	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-05	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	66
BH24-06	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-06	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-06	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-07	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-07	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-07	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	270
BH24-08	0	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-08	2	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-08	4	July 8, 2024	ND	ND	ND	ND	ND	ND	ND	200
BH24-09	0	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-09	2	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-09	4	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-10	0	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-10	2	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-10	4	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-11	0	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-11	2	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-11	4	July 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-12	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	190

VERTEX

Client Name: Mack Energy Company
Site Name: Dawson Creek State #2
NMOCD Tracking #: NAPP2416663643
Project #: 24E-03166
Lab Reports: 885-7606-1, 885-8086-1, 885-8087-1, 885-8088-1, 885-7876-1, 885-7927-1, 885-8372-1, 885-8373-1, 885-8504-1, and 885-8505-1

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BH24-12	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-12	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	71
BH24-13	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	**2600**
BH24-13	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	**1600**
BH24-13	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	65
BH24-14	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	430
BH24-14	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	530
BH24-14	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	130
BH24-15	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	**670**
BH24-15	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	330
BH24-15	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	67
BH24-16	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	**7300**
BH24-16	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	520
BH24-16	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	250
BH24-16	6	July 12, 2024	ND	ND	ND	ND	ND	ND	ND	**860**
BH24-17	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	400
BH24-17	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	100
BH24-17	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-18	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	160
BH24-18	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	290
BH24-18	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	530
BH24-19	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	**4500**
BH24-19	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	180
BH24-19	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	180
BH24-20	0	July 11,2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-20	2	July 11,2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-20	4	July 11,2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-21	0	July 12,2024	ND	ND	ND	ND	ND	ND	ND	170
BH24-21	2	July 12 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-21	4	July 12,2025	ND	ND	ND	ND	ND	ND	ND	97
BH24-22	0	July 12 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH24-22	2	July 12,2026	ND	ND	ND	ND	ND	ND	ND	ND
BH24-22	4	July 12 2026	ND	ND	ND	ND	ND	ND	ND	ND
BH24-23	0	July 12,2027	ND	ND	ND	ND	ND	ND	ND	130
BH24-23	2	July 12 2027	ND	ND	ND	ND	ND	ND	ND	ND

VERTEX

Client Name: Mack Energy Company
Site Name: Dawson Creek State #2
NMOCD Tracking #: NAPP2416663643
Project #: 24E-03166
Lab Reports: 885-7606-1, 885-8086-1, 885-8087-1, 885-8088-1, 885-7876-1, 885-7927-1, 885-8372-1, 885-8373-1, 885-8504-1, and 885-8505-1

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BH24-23	4	July 12,2028	ND	ND	ND	ND	ND	ND	ND	130
BH24-24	0	July 12 2028	ND	ND	ND	ND	ND	ND	ND	170
BH24-24	2	July 12,2029	ND	ND	ND	ND	ND	ND	ND	ND
BH24-24	4	July 12 2029	ND	ND	ND	ND	ND	ND	ND	170
BH24-25	0	July 12,2030	ND	ND	ND	ND	ND	ND	ND	ND
BH24-25	2	July 12 2030	ND	ND	ND	ND	ND	ND	ND	ND
BH24-25	4	July 12,2031	ND	ND	ND	ND	ND	ND	ND	ND
BH24-26	0	July 12 2031	ND	ND	ND	ND	ND	ND	ND	ND
BH24-26	2	July 12,2032	ND	ND	ND	ND	ND	ND	ND	ND
BH24-26	4	July 12 2032	ND	ND	ND	ND	ND	ND	ND	ND
BH24-27	0	July 12,2033	ND	ND	ND	ND	ND	ND	ND	ND
BH24-27	2	July 12 2033	ND	ND	ND	ND	ND	ND	ND	ND
BH24-27	4	July 12,2034	ND	ND	ND	ND	ND	ND	ND	ND
BH24-28	0	July 13, 2024	ND	ND	ND	ND	ND	ND	ND	**5500**
BH24-28	2	July 13, 2024	ND	ND	ND	ND	ND	ND	ND	**1200**
BH24-28	4	July 13, 2024	ND	ND	ND	ND	ND	ND	ND	160
BH24-28	6	July 13,2024	ND	ND	ND	ND	ND	ND	ND	590
BH24-29	0	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-29	2	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-29	4	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	100
BH24-30	0	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-30	2	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-30	4	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	60
BH24-31	0	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-31	2	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-31	4	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-32	0	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-32	2	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-32	4	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	150
BH24-33	0	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-33	2	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-33	4	July 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-34	0	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	88
BH24-34	2	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-34	4	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-35	0	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	**1000**

VERTEX

Client Name: Mack Energy Company
Site Name: Dawson Creek State #2
NMOCD Tracking #: NAPP2416663643
Project #: 24E-03166
Lab Reports: 885-7606-1, 885-8086-1, 885-8087-1, 885-8088-1, 885-7876-1, 885-7927-1, 885-8372-1, 885-8373-1, 885-8504-1, and 885-8505-1

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BH24-35	2	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	400
BH24-35	4	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	82
BH24-36	0	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	**1800**
BH24-36	2	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	120
BH24-36	4	July 16, 2024	ND	ND	ND	ND	ND	ND	ND	66
BH24-37	0	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-37	2	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-37	4	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-38	0	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-38	2	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-38	4	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-39	0	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-39	2	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-39	4	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-40	0	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	170
BH24-40	2	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-40	4	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-41	0	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	63
BH24-41	2	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-41	4	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-42	0	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-42	2	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	110
BH24-42	4	July 17, 2024	ND	ND	ND	ND	ND	ND	ND	94
BH24-43	0	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-43	2	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-43	4	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	96
BH24-44	0	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-44	2	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	76
BH24-44	4	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-45	0	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-45	2	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-45	4	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-46	0	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-46	2	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-46	4	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-47	0	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-47	2	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-47	4	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-48	0	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND

VERTEX

Client Name: Mack Energy Company
Site Name: Dawson Creek State #2
NMOCD Tracking #: NAPP2416663643
Project #: 24E-03166
Lab Reports: 885-7606-1, 885-8086-1, 885-8087-1, 885-8088-1, 885-7876-1, 885-7927-1, 885-8372-1, 885-8373-1, 885-8504-1, and 885-8505-1

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BH24-48	2	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-48	4	July 18, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-49	0	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-49	2	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-49	4	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-50	0	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-50	2	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-50	4	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-51	0	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	65
BH24-51	2	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-51	4	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-52	0	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-52	2	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-52	4	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-53	0	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-53	2	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-53	4	July 19, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-54	0	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-54	2	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-54	4	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-55	0	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-55	2	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-55	4	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-56	0	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-56	2	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-56	4	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-57	0	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-57	2	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-57	4	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-58	0	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-58	2	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	72
BH24-58	4	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-59	0	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-59	2	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-59	4	July 20, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-60	0	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-60	2	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	250
BH24-60	4	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-61	0	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND

Client Name: Mack Energy Company
Site Name: Dawson Creek State #2
NMOCD Tracking #: NAPP2416663643
Project #: 24E-03166
Lab Reports: 885-7606-1, 885-8086-1, 885-8087-1, 885-8088-1, 885-7876-1, 885-7927-1, 885-8372-1, 885-8373-1, 885-8504-1, and 885-8505-1

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BH24-61	2	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-61	4	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-62	0	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-62	2	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-62	4	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-63	0	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-63	2	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-63	4	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-64	0	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-64	2	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-64	4	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-65	0	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	61
BH24-65	2	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-65	4	July 21, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-66	0	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-66	2	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-66	4	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-67	0	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-67	2	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-67	4	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-68	0	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-68	2	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-68	4	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	75
BH24-69	0	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-69	2	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-69	4	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-70	0	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-70	2	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-70	4	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-71	0	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-71	2	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-71	4	July 22, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-72	0	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-72	2	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-72	4	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-73	0	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-73	2	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-73	4	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-74	0	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	270

VERTEX

Client Name: Mack Energy Company
Site Name: Dawson Creek State #2
NMOCD Tracking #: NAPP2416663643
Project #: 24E-03166
Lab Reports: 885-7606-1, 885-8086-1, 885-8087-1, 885-8088-1, 885-7876-1, 885-7927-1, 885-8372-1, 885-8373-1, 885-8504-1, and 885-8505-1

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BH24-74	2	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-74	4	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-75	0	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-75	2	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-75	4	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-76	0	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-76	2	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-76	4	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	70
BH24-77	0	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	120
BH24-77	2	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-77	4	July 23, 2024	ND	ND	ND	ND	ND	ND	ND	230
BH24-78	0	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	**1200**
BH24-78	2	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-78	4	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	140
BH24-79	0	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	66
BH24-79	2	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	90
BH24-79	4	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-80	0	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	470
BH24-80	2	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-80	4	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-81	0	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	**3200**
BH24-81	2	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	64
BH24-81	4	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	60
BH24-82	0	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	280
BH24-82	2	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	**2300**
BH24-82	4	July 24, 2024	ND	ND	ND	ND	ND	ND	ND	260

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria (off-pad)

Client Name: Mack Energy Corp
Site Name: Dawson Creek State #2
NMOCD Tracking #: nAPP2416663643
Project #:24E-03166
Lab Reports: J11427-1, J11925-1, J11928-1, J11933-1, J11901-1, J13231-1, J13301-1, J13606-1, J13626-1, J14119-1, and J15020

Table 4. Confirmatory Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BS24-01	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-02	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-03	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-04	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-05	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	98
BS24-06	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	130
BS24-07	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	180
BS24-08	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	160
BS24-09	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-10	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-11	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-12	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-13	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-14	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-15	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-16	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-17	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-18	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-19	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	160
BS24-20	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-21	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-22	3	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	100
BS24-23	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-24	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-25	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	190
BS24-26	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	190
BS24-27	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	190
BS24-28	5	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	160
BS24-29	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	**960**
	4	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	260
BS24-30	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	230
BS24-31	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-32	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	230
BS24-33	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	160

Client Name: Mack Energy Corp
Site Name: Dawson Creek State #2
NMOCD Tracking #: nAPP2416663643
Project #:24E-03166
Lab Reports: J11427-1, J11925-1, J11928-1, J11933-1, J11901-1, J13231-1, J13301-1, J13606-1, J13626-1, J14119-1, and J15020

Table 4. Confirmatory Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BS24-34	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	160
BS24-35	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	81
BS24-36	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-37	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	520
BS24-38	5	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-39	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	240
BS24-40	4	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	75
BS24-41	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-42	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	260
BS24-43	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-44	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	240
BS24-45	7	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	**760**
	9	October 21, 2024	ND	ND	ND	ND	ND	ND	ND	460
BS24-46	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	130
BS24-47	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	120
BS24-48	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-49	4	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	60
BS24-50	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	230
BS24-51	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	240
BS24-52	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	290
BS24-53	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	350
BS24-54	6	October 2, 2024	ND	ND	ND	ND	ND	ND	ND	210
BS24-55	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	290
BS24-56	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	190
	4	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	65
BS24-57	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	230
BS24-58	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-59	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	170
BS24-60	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	120
BS24-61	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-62	6	October 2, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-63	4	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	130
BS24-64	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	280
BS24-65	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	310

Client Name: Mack Energy Corp
Site Name: Dawson Creek State #2
NMOCD Tracking #: nAPP2416663643
Project #:24E-03166
Lab Reports: J11427-1, J11925-1, J11928-1, J11933-1, J11901-1, J13231-1, J13301-1, J13606-1, J13626-1, J14119-1, and J15020

Table 4. Confirmatory Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BS24-66	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-67	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	180
BS24-68	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	95
BS24-69	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	240
BS24-70	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-71	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	300
BS24-72	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	120
BS24-73	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	380
BS24-74	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	180
BS24-75	3	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	**760**
	3	November 6, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-76	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	94
BS24-77	6	September 27, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-78	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	**1300**
	4	September 27, 2024	ND	ND	ND	ND	ND	ND	ND	73
BS24-79	4	September 27, 2024	ND	ND	ND	ND	57	ND	57	140
BS24-80	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-81	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	120
BS24-82	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-83	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	160
BS24-84	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-85	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	61
BS24-86	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	96
BS24-87	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-88	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-89	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-90	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-91	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	460
BS24-92	3	September 12, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-93	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	200
BS24-94	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	450
BS24-95	5	October 2, 2024	ND	ND	ND	ND	ND	ND	ND	200
BS24-96	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	400
BS24-97	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	180

Client Name: Mack Energy Corp
Site Name: Dawson Creek State #2
NMOCD Tracking #: nAPP2416663643
Project #:24E-03166
Lab Reports: J11427-1, J11925-1, J11928-1, J11933-1, J11901-1, J13231-1, J13301-1, J13606-1, J13626-1, J14119-1, and J15020

Table 4. Confirmatory Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BS24-98	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	250
BS24-99	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-100	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	600
BS24-101	5	October 2, 2024	ND	ND	ND	ND	ND	ND	ND	84
BS24-102	3	September 13, 2024	ND	ND	ND	ND	ND	ND	ND	280
BS24-103	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-104	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	85
BS24-105	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-106	3	September 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-107	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	61
BS24-108	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-109	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-110	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	74
BS24-111	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-112	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-113	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	68
BS24-114	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-115	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	300
BS24-116	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	90
BS24-117	3	September 26, 2024	ND	ND	ND	ND	ND	ND	ND	180
BS24-118	3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	96
BS24-119	3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	150
BS24-120	5	October 21, 2024	ND	ND	ND	ND	ND	ND	ND	360
BS24-121	4	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-122	4	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	380
BS24-123	4	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	65
BS24-124	3	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	180
BS24-125	3	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	62
BS24-126	5	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	78
BS24-127	4	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BS24-128	5	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	200
BS24-129	3	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	220
BS24-130	3	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	110
BS24-131	3	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	200

Client Name: Mack Energy Corp
Site Name: Dawson Creek State #2
NMOCD Tracking #: nAPP2416663643
Project #:24E-03166
Lab Reports: J11427-1, J11925-1, J11928-1, J11933-1, J11901-1, J13231-1, J13301-1, J13606-1, J13626-1, J14119-1, and J15020

Table 4. Confirmatory Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
BS24-132	9	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	300
WS24-01	3	September 9, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-02	3	September 9, 2024	ND	ND	ND	ND	ND	ND	ND	110
WS24-03	3	September 9, 2024	ND	ND	ND	ND	ND	ND	ND	87
WS24-04	3	September 9, 2024	ND	ND	ND	ND	ND	ND	ND	380
WS24-05	2	September 9, 2024	ND	ND	ND	ND	ND	ND	ND	**1800**
	0-2	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	210
WS24-06	0-3	September 27, 2024	ND	ND	ND	ND	ND	ND	ND	250
WS24-07	0-3	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	90
WS24-08	3	September 9, 2024	ND	ND	ND	ND	ND	ND	ND	360
WS24-09	3-5	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-10	3	September 10, 2024	ND	ND	ND	ND	ND	ND	ND	150
WS24-11	3	September 10, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-12	3	September 10, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-13	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	260
WS24-14	3	September 10, 2024	ND	ND	ND	ND	ND	ND	ND	62
WS24-15	3	September 10, 2024	ND	ND	ND	ND	ND	ND	ND	190
WS24-16	3	September 10, 2024	ND	ND	ND	ND	ND	ND	ND	370
	0-3	September 27, 2024	ND	ND	ND	ND	ND	ND	ND	160
WS24-17	3	September 10, 2024	ND	ND	ND	ND	ND	ND	ND	310
	0-3	October 2, 2024	ND	ND	ND	ND	ND	ND	ND	120
WS24-18	0-3	September 27, 2024	ND	ND	ND	ND	ND	ND	ND	93
WS24-19	0-3	September 27, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-20	0-3	October 2, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-21	0-3	September 27, 2024	ND	ND	ND	ND	ND	ND	ND	180
WS24-22	3-5	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	230
WS24-23	3-4	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-24	3-4	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	210
WS24-25	3-4	October 1, 2024	ND	ND	ND	ND	ND	ND	ND	220
WS24-26	3-4	October 2, 2024	ND	ND	ND	ND	ND	ND	ND	100
WS24-27	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-28	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	460
WS24-29	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	500

Client Name: Mack Energy Corp
Site Name: Dawson Creek State #2
NMOCD Tracking #: nAPP2416663643
Project #:24E-03166
Lab Reports: J11427-1, J11925-1, J11928-1, J11933-1, J11901-1, J13231-1, J13301-1, J13606-1, J13626-1, J14119-1, and J15020

Table 4. Confirmatory Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50' bgs							
WS24-30	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	100
WS24-31	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-32	0-3	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	68
WS24-33	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-34	0-3	October 4, 2024	ND	ND	ND	ND	ND	ND	ND	180
WS24-35	3-7	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	200
WS24-36	3-7	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	360
WS24-37	0-4	October 7, 2024	ND	ND	ND	13	62	13	75	210
WS24-38	0-4	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-39	0-4	October 7, 2024	ND	ND	ND	9.7	ND	9.7	9.7	190
WS24-40	0-4	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	220
WS24-41	0-3	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	ND
WS24-42	0-3	October 7, 2024	ND	ND	ND	ND	ND	ND	ND	65
WS24-43	4-5	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	95
WS24-44	3-4	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	230
WS24-45	3-4	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	350
WS24-46	3-4	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	91
WS24-47	3-4	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	60
WS24-48	4-5	October 23, 2024	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria (off-pad)

APPENDIX A - NMOCD C-141 Report

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 354337
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Location of Release Source *Please answer all the questions in this group.*	
Site Name	Dawson Creek State #002 Layflat Release
Date Release Discovered	06/14/2024
Surface Owner	State

Incident Details *Please answer all the questions in this group.*	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release *Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Vehicular Accident | Flow Line - Production | Produced Water | Released: 255 BBL | Recovered: 25 BBL | Lost: 230 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 354337
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	False
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph 4 of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 354337
	Action Type: [NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

☑	I acknowledge that I am authorized to submit notification of a release on behalf of my operator.
☑	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
☑	I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
☑	I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment.
☑	I acknowledge the fact that the acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment.
☑	I acknowledge the fact that, in addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 354337

CONDITIONS

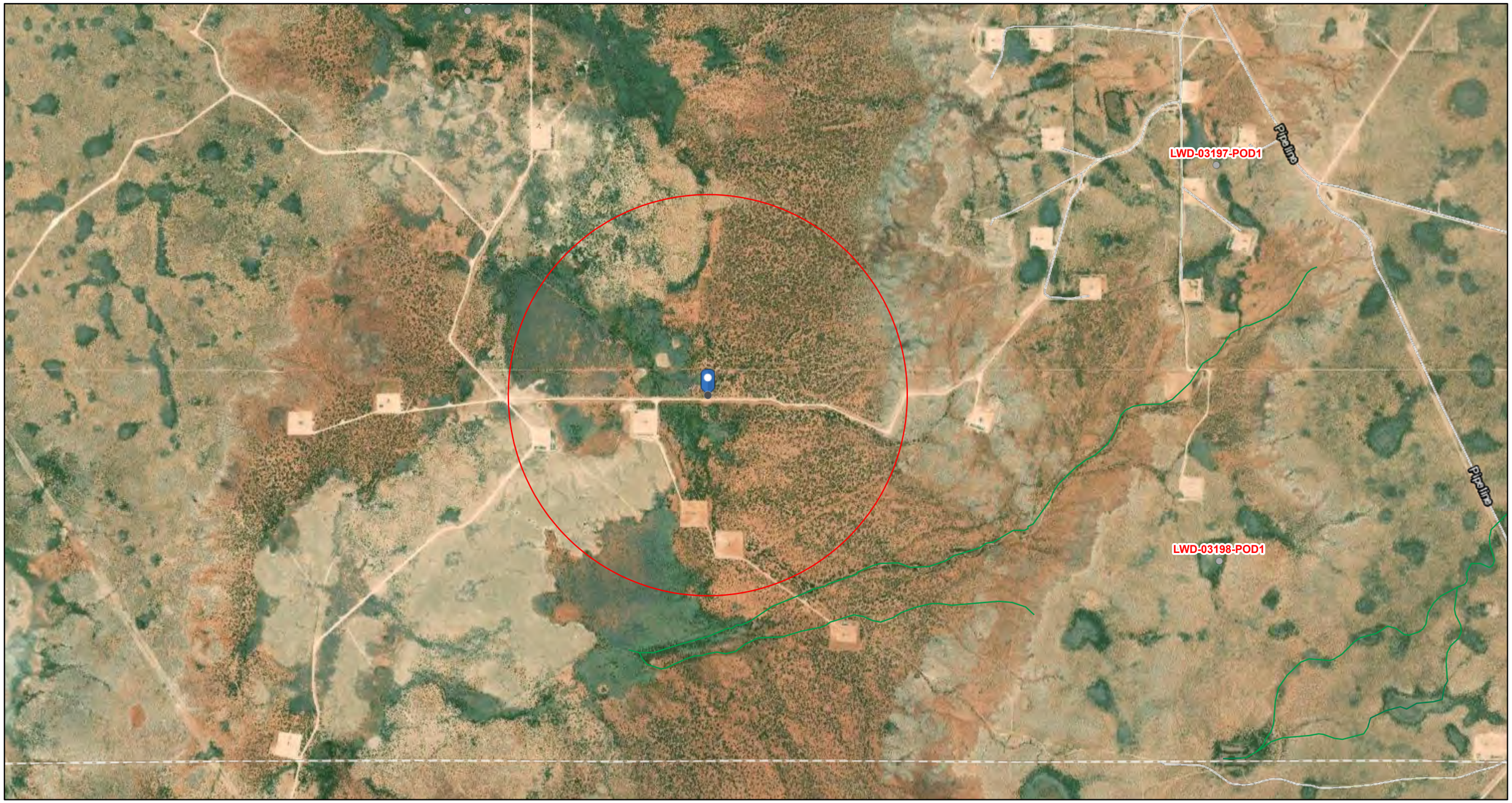
Operator:	OGRID:
MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	13837
	Action Number: 354337
	Action Type: [NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By	Condition	Condition Date
scarttar	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.	6/14/2024

APPENDIX B – Closure Criteria Research Documentation

OSE POD Location Map - Dawson Creek State #2



6/23/2024, 4:36:45 PM

1:18,056

GIS WATERS PODs

GIS WATERS PODs

OSE District Boundary

NHD Flowlines

Artificial Path

Stream River

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Online web user

This is an unofficial map from the OSE's online application.

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
	RA 12428	SE	NE	NW	21	15S	28E	580579.1	3652317.4	

*** UTM location was derived from PLSS - see Help**

Driller License:	1058	**Driller Company:**	KEY'S DRILLING & PUMP SERVICE		
Driller Name:	DONALD KUEHN III				
Drill Start Date:	2016-07-28	**Drill Finish Date:**	2016-08-04	**Plug Date:**	
Log File Date:	2016-08-08	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15
Casing Size:	4.50	**Depth Well:**	170	**Depth Water:**	125

Water Bearing Stratifications:

Top	Bottom	Description
125	140	Sandstone/Gravel/Conglomerate
140	160	Sandstone/Gravel/Conglomerate
160	170	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
125	170

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

©2024 New Mexico Office of the State Engineer, All Rights Reserved. | Disclaimer | Contact Us | Help | Home |

Water Right Summary



get image list

WR File Number:	RA 12428	**Subbasin:**	RA	**Cross Reference:**
Primary Purpose:	STK 72-12-1 LIVESTOCK WATERING			
Primary Status:	PMT Permit			
Total Acres:		**Subfile:**		**Header:**
Total Diversion:	3.000	**Cause/Case:**		
Owner:	BOGLE LTD.			
Contact:	STUART BOGLE			

Documents on File

(acre-fe

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion
get images	590003	72121	2016-06-29	PMT	LOG	RA 12428 POD1	T		3.000

Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
RA 12428		Shallow	SE	NE	NW	21	15S	28E	580579.1	3652317.4		

*** UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

©2024 New Mexico Office of the State Engineer, All Rights Reserved. | Disclaimer | Contact Us | Help | Home |

Received by OCD: 12/11/2024 12:00:41 AM

U.S. Fish and Wildlife Service
National Wetlands Inventory

Dawson Creek State #002
Watercourse 337ft



October 26, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

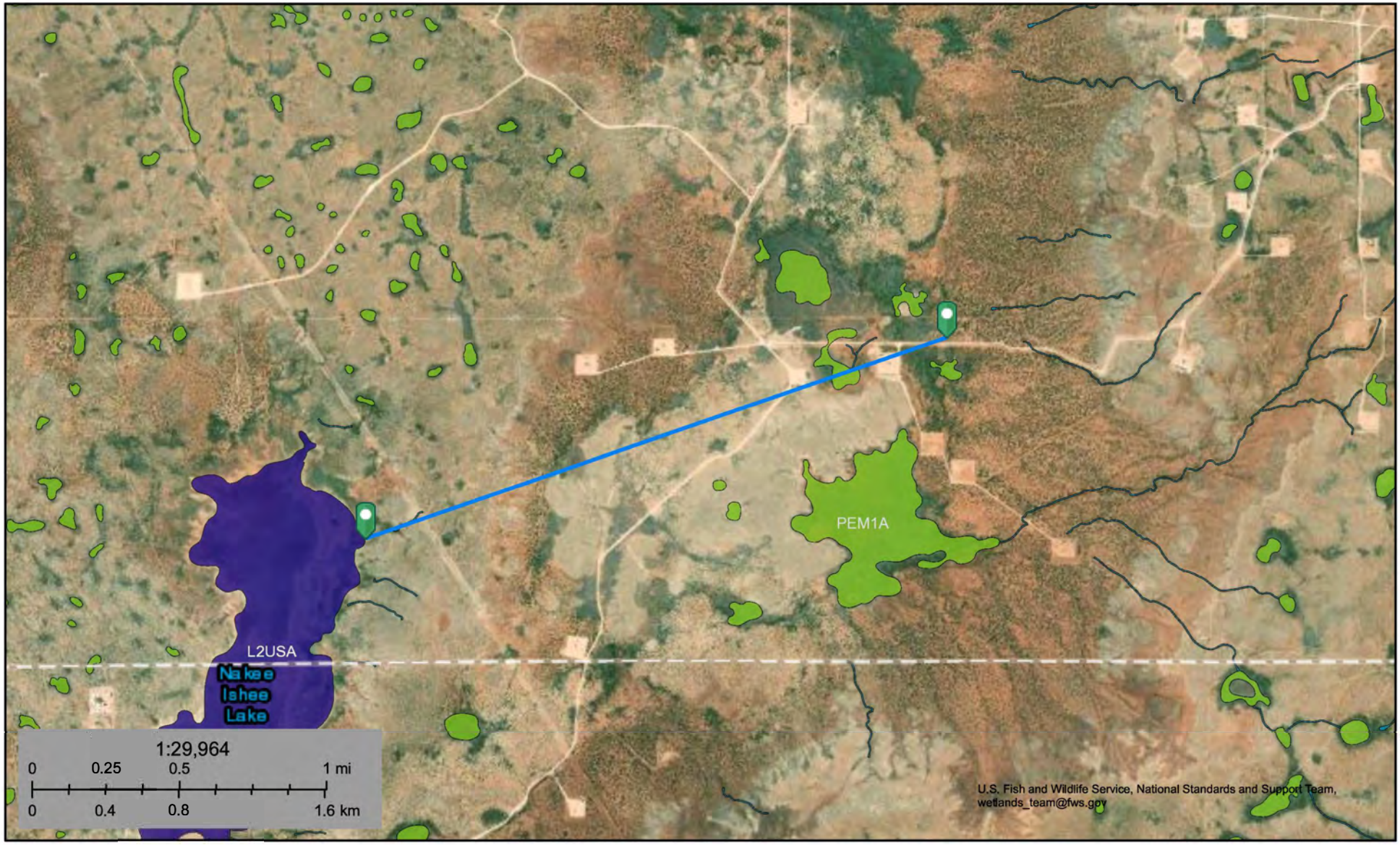
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

U.S. Fish and Wildlife Service
National Wetlands Inventory

Dawson Creek State #2 Lake 9,269ft



June 23, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Released to Imaging: 2/19/2025 2:59:10 PM

Dawson Creek State #2

Nearest Residence
52,024 feet (9.85 mi) away

Legend

- Distance to Nearest Residence
- Nearest Resident



Image © 2024 Airbus

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Sou
RA 08333	RA	STK	1.470	BOGLE FARMS	CH	RA 08333				
LWD 03198	RA	PLS	4.950	BOGLE FARMS	CH	LWD 03198 POD1				
LWD 03197	RA	PLS	4.950	BOGLE FARMS	CH	LWD 03197 POD1				
RA 12007	RA	EXP	0.000	MACK ENERGY	CH	RA 12007 POD1				
RA 12006	RA	EXP	0.000	MACK ENERGY	CH	RA 12006 POD1				
LWD 03199	RA	PLS	8.200	BOGLE FARMS	CH	LWD 03199 POD1				
LWD 03196	RA	PLS	2.770	BOGLE FARMS	CH	LWD 03196 POD1				

Record Count: 7

Filters Applied:

UTM Filters (in meters):
Easting: 585031.44
Northing: 3649280.35
Radius: 5000.0

Sorted By: Distance

*** UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

©2024 New Mexico Office of the State Engineer, All Rights Reserved. | Disclaimer | Contact Us | Help | Home |

Received by OCD: 12/11/2024 12:00:41 AM

U.S. Fish and Wildlife Service
National Wetlands Inventory

Dawson Creek State #2
Wetland 2,315ft



June 23, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Released to Imaging: 2/19/2025 2:59:10 PM

Dawson Creek State #2 - Mine - 116058 feet



6/23/2024, 4:51:18 PM

Registered Mines

Aggregate, Stone etc.

Aggregate, Stone etc.

Aggregate, Stone etc.

Aggregate, Stone etc.

Aggregate, Stone etc.

Potash

1:288,895

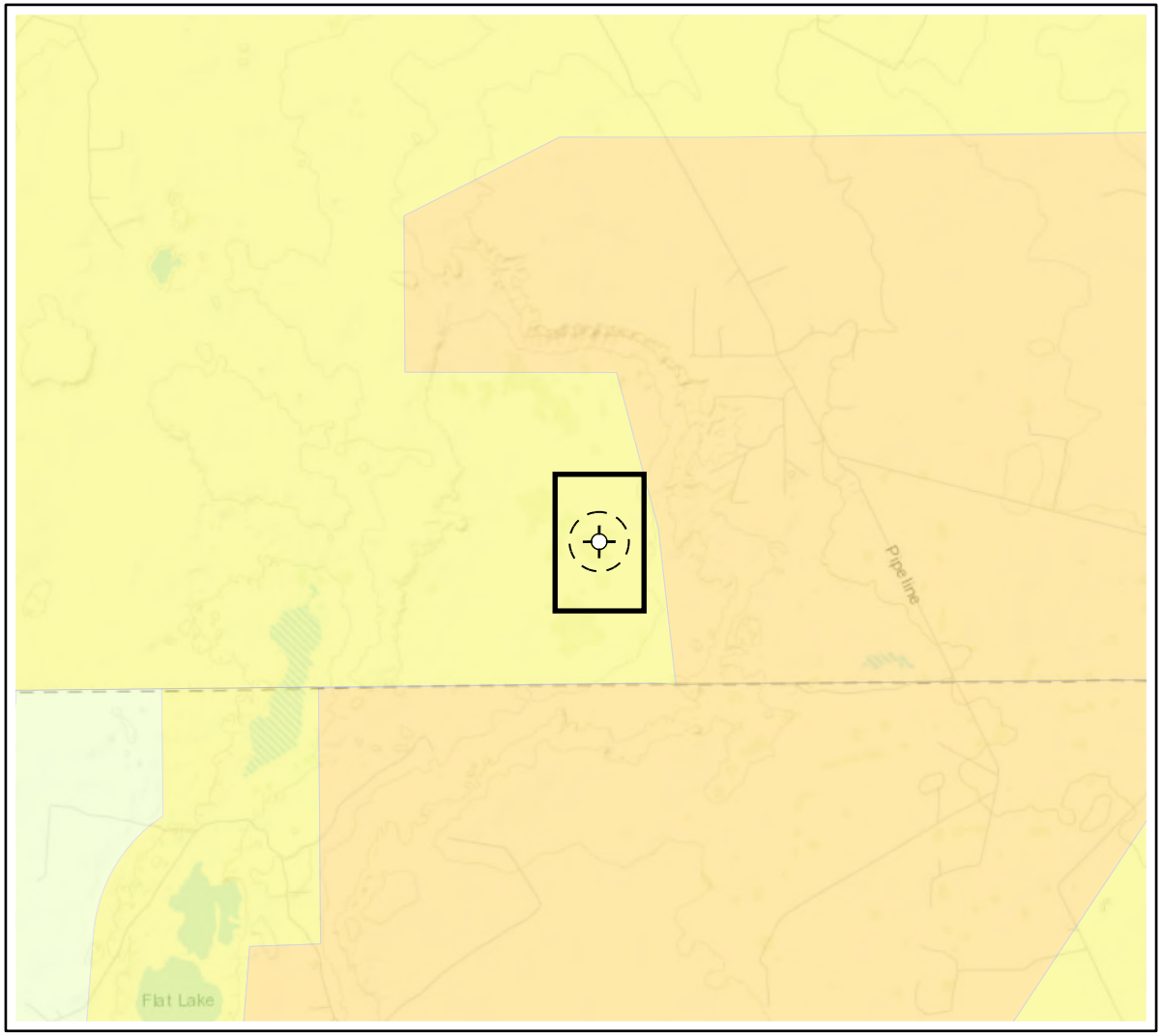
0 3 6 12 mi

0 4.75 9.5 19 km

Esri, NASA, NGA, USGS, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)





Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Site Buffer (1000 ft)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft

VERTEX

Map Center:
Lat/Long
32.9785°,-104.089947°

NAD 1983 UTM Zone 13N
Date: Jun 26/24

N

Karst Potential Map
Dawson Creek State #2

Figure:
X

MACK Energy Corporation

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Inset Map, Esri 2022; Overview Map: Esri World Topographic. Karst potential data sources from Roswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management, (2018). Karst Potential.

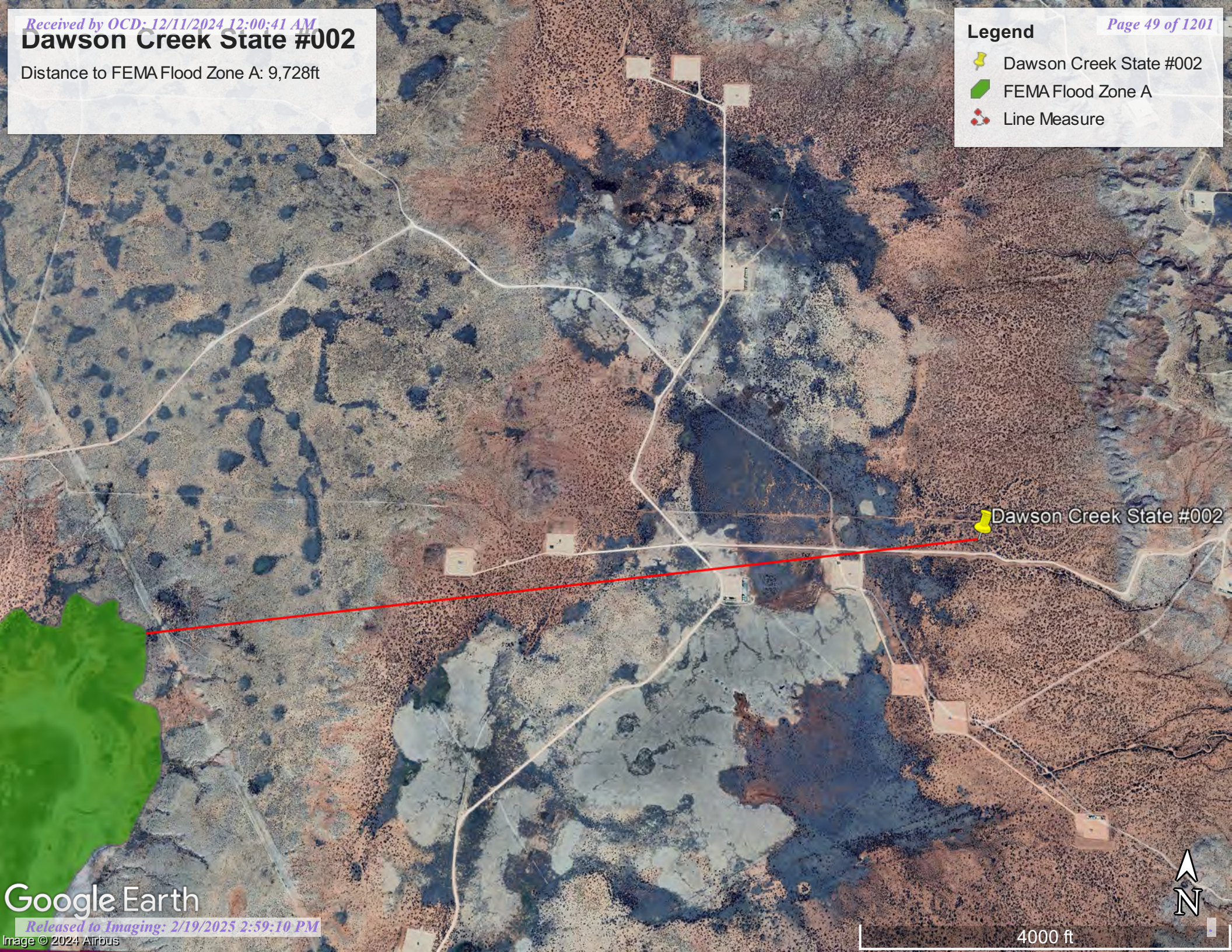
VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Mack Energy\2024\24E-03166\Project\24E-03166.aprx

Received by OCD: 12/11/2024 12:00:41 AM

Dawson Creek State #002

Distance to FEMA Flood Zone A: 9,728ft



Released to Imaging: 2/19/2025 2:59:10 PM

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Chaves County, New Mexico, Southern Part



October 25, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Chaves County, New Mexico, Southern Part.....13
Aa—Alama loam.....13
Pb—Pajarito-Pintura complex.....14
References.....17

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chaves County, New Mexico, Southern Part
Survey Area Data: Version 19, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Aa	Alama loam	8.8	43.9%
Pb	Pajarito-Pintura complex	11.2	56.1%
Totals for Area of Interest		**20.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Chaves County, New Mexico, Southern Part

Aa—Alama loam

Map Unit Setting

National map unit symbol: 1w6g
Elevation: 3,200 to 4,200 feet
Mean annual precipitation: 10 to 16 inches
Mean annual air temperature: 59 to 65 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Alama and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alama

Setting

Landform: Flood plains, swales
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous alluvium derived from sedimentary rock

Typical profile

H1 - 0 to 3 inches: loam
H2 - 3 to 58 inches: clay loam
H3 - 58 to 69 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 5 percent
Ecological site: R070BD004NM - Sandy
Hydric soil rating: No

Berino

Percent of map unit: 5 percent
Ecological site: R070BD004NM - Sandy
Hydric soil rating: No

Pintura

Percent of map unit: 4 percent
Ecological site: R070BD005NM - Deep Sand
Hydric soil rating: No

Playa

Percent of map unit: 1 percent
Landform: Flood-plain playas
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R070BC017NM - Bottomland
Hydric soil rating: Yes

Pb—Pajarito-Pintura complex

Map Unit Setting

National map unit symbol: 1w7s
Elevation: 3,300 to 3,900 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 59 to 65 degrees F
Frost-free period: 200 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Pajarito and similar soils: 55 percent
Pintura and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pajarito

Setting

Landform: Plains, terraces, alluvial fans
Landform position (three-dimensional): Side slope, base slope, crest, rise
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear

Parent material: Mixed alluvium and/or eolian deposits derived from sedimentary rock

Typical profile

H1 - 0 to 5 inches: fine sandy loam
H2 - 5 to 46 inches: fine sandy loam
H3 - 46 to 60 inches: fine sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD004NM - Sandy
Hydric soil rating: No

Description of Pintura

Setting

Landform: Dunes
Landform position (three-dimensional): Head slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed eolian deposits derived from sedimentary rock

Typical profile

H1 - 0 to 3 inches: loamy fine sand
H2 - 3 to 38 inches: loamy fine sand
H3 - 38 to 60 inches: fine sand

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 7 percent
Maximum salinity: Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0

Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R070BD005NM - Deep Sand
Hydric soil rating: No

Minor Components

Alama

Percent of map unit: 5 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Simona

Percent of map unit: 5 percent
Ecological site: R070BD002NM - Shallow Sandy
Hydric soil rating: No

Berino

Percent of map unit: 5 percent
Ecological site: R070BD004NM - Sandy
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

USDA Natural Resources Conservation Service

Ecological site R070BD004NM
Sandy

Accessed: 10/26/2024

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site is on uplands, plains, dunes, fan piedmonts, terraces and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands or calcareous alluvium derived from sedimentary rock. Slope range on this site range from 0 to 9 percent with the average of 5 percent.

Low stabilized dunes may occur occasionally on this site. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Plain (2) Fan piedmont (3) Terrace
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–4,500 ft
Slope	0–5%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity short duration thunderstorms.
Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.
The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November.
Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture,

annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest in January through June which rapidly dries out the soil during a critical period for cool season plant growth.

Climate data was obtained from http://www.wrcc.sage.dri.edu/summary/climsmnm.html web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

Table 3. Representative climatic features

Frost-free period (average)	200 days
Freeze-free period (average)	219 days
Precipitation total (average)	12 in

Influencing water features

This site is not influenced from water from wetlands or streams.

Soil features

Soils are moderately deep or very deep. Surface textures are loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam.

Subsurface is a sandy loam, loam, sandy clay loam, clay loam (contains more than 45 percent sand and 18 to 35 percent clay) and less than 15 percent carbonates.

Substratum is a sandy loam, fine sandy loam, sandy clay loam, clay loam, coarse sandy loam, or coarse sand and Calcium carbonate equivalent of 15 to 40 percent. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed. They contains more than 45 percent sand and 18 to 35 percent clay.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic Soils Are:
Anthony
Berino
Cacique
Harkey
Pajaritio
Reakor
Mobeetie
Wink
Sotim
Vinton
Drake
Onite
Alma
Poquita
Dona Ana
Monahans

Note: *Cacique soils is a shallow soil.

Table 4. Representative soil features

Surface texture	(1) Fine sandy loam (2) Sandy loam (3) Loamy fine sand
Family particle size	(1) Loamy
Drainage class	Well drained to moderately well drained
Permeability class	Moderately rapid to moderately slow
Soil depth	30–72 in
Surface fragment cover <=3"	0–20%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	3–11 in
Calcium carbonate equivalent (0-40in)	5–30%
Electrical conductivity (0-40in)	0–2 mmhos/cm
Sodium adsorption ratio (0-40in)	0–1
Soil reaction (1:1 water) (0-40in)	6.6–8.4
Subsurface fragment volume <=3" (Depth not specified)	0–15%
Subsurface fragment volume >3" (Depth not specified)	0%

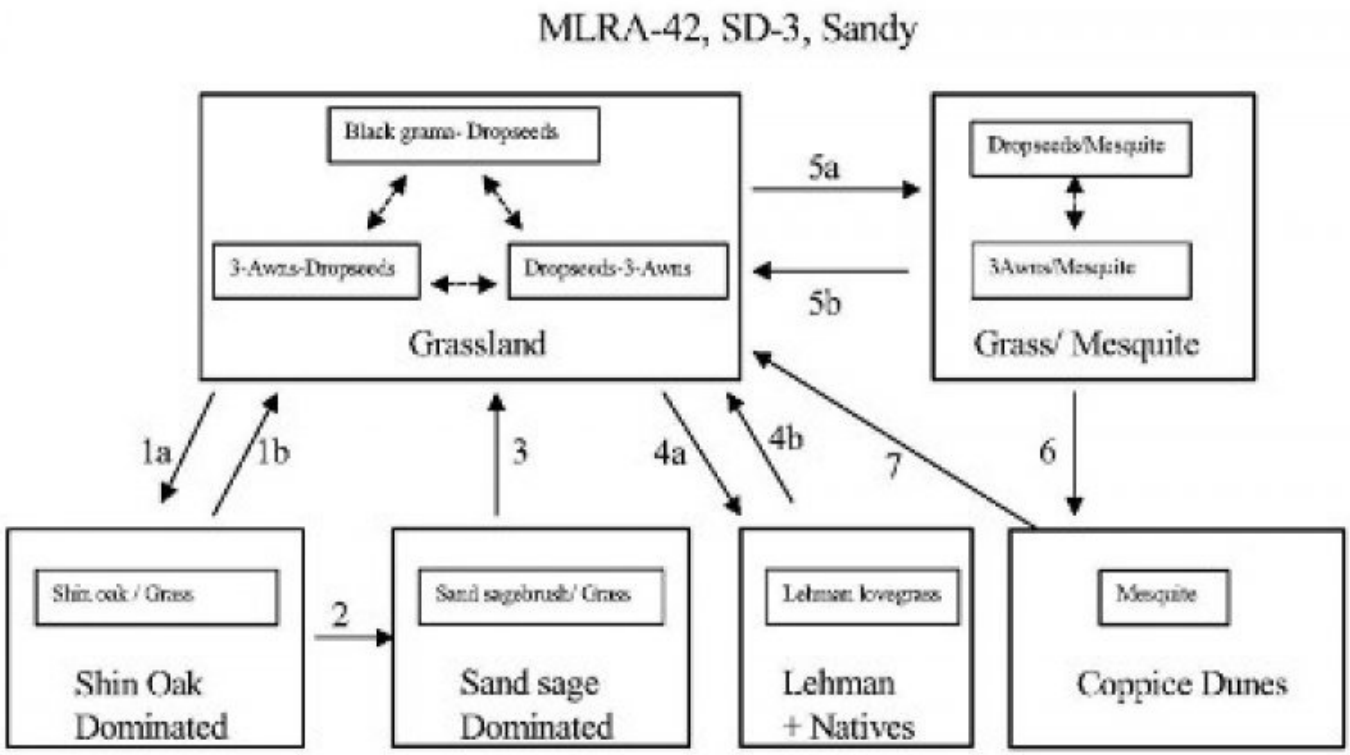
Ecological dynamics

Overview

The Sandy site often intergrades with the Loamy Sand and Deep Sand sites (SD-3). Sandy sites occur on plains, fans, or terraces between drainages. Slopes average less than five percent. Surface textures are usually sandy loams. The historic plant community of the Sandy site is dominated by black grama (*Bouteloua eriopoda*) and dropseeds (*Sporobolus flexuosus*, *S. contractus*, *S. cryptandrus*). Blue grama (*B. gracilis*) also occurs as a subdominant species. Perennial and annual forb abundance is distributed relative to precipitation occurrence. Litter and to a lesser extent, bare ground, compose a significant proportion of the ground cover while grasses compose the remainder. Decreases in black grama and other grass species' cover indicate a transition to states with an increased shrub component. Shinnery oak (*Quercus havardii*), sand sage(*Artemisia filifolia*), and honey mesquite (*Prosopis glandulosa*) can all increase in composition. Lehmann lovegrass (*Eragrostis lehmanniana*) also may occur as a result of invasion and competition among grass species. Heavy grazing intensity and/or drought are influential in decreasing grass cover and subsequently increasing shrub cover. Fire suppression further supports shrub cover increase and an advantage over grass species. However, brush and grazing management may restore grass species and reverse shrub or grass/shrub dominated states back toward the historic plant community.

State and transition model

Plant Communities and Transitional Pathways (diagram)



1a. Climate, fire suppression, competition, over grazing
1b. Brush control, Prescribed grazing

2.Brush control (insufficient chemical).

3. Brush control

4a. Invasion from seeded areas.
4b. Brush control reseed native species.

5a. Overgrazing, seed dispersal, lack of fire.
5b. Brush control, prescribed fire.

6.Severe loss of grass cover, wind erosion.

7. Brush control, seeding

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

Grassland: The historic plant community is composed primarily of black grama, dropseeds, and a secondary component of blue grama. Black grama tends to dominate due to the predominance of sandy loam soils; however, dropseeds increase on more loamy soils. Perennial and annual forbs are common but their abundance and

distribution are dependent on seasonal precipitation. Historical fire frequency is unknown but probably contributed to shrub reduction to the competitive advantage of grass species. Excessive grazing and drought are likely the dominant drivers that decrease black grama and increase dropseed and threeawn abundance within the historic plant community. Black grama has low seed viability, and therefore, reproduces vegetatively during the summer growing season. However, black grama growth is delayed one season after normal precipitation. Black grama is dormant for the remainder of the year; however, black grama retains nutritive value yearlong for grazing. In contrast, dropseeds have relatively abundant, viable seed production and can benefit from early spring as well as summer precipitation. Threeawns also respond to spring and summer moisture and tend to be the year's first palatable species. Threeawns and dropseeds, however, are not palatable during dormant periods, which extends grazing pressure to black grama. Moderate to heavy grazing reduces vegetative cover of black grama which increases its susceptibility to wind erosion and drought (Canfield 1939). Black grama is especially vulnerable to grazing during the summer growing season when stoloniferous growth and rooting occur. Black grama sustains short droughts through reduction of plant tufts which will subsequently emerge with sufficient moisture. Prolonged drought or grazing concurrently under drought conditions can delay or impede recovery of black grama (Nelson 1934) and increase abundance of dropseeds, threeawns, and blue grama. Historical fire events may have benefited black grama, especially, frequent, light intensity/severity fires in conjunction with sufficient moisture to increase stolon production (McPherson 1995). Fires which were hot and severe, however, probably contributed to black grama mortality, more so in drought conditions. Diagnosis: This state is a grassland dominated by black grama, dropseeds, and threeawns, with subdominant blue grama. Shrubs, such as sand sage and mesquite, are sparsely dispersed throughout the grassland. Forb populations are present and fluctuate with precipitation variability. Other grasses that could appear on this site include: fall withchgrass, slim tridens, Almejita signalgrass, Indian ricegrass and fluffgrass. Other shrubs include: pale wolfberry, lotebush, tarbush, Apacheplume, and mesquite. Other forbs include: plains tickseed, plains blackfoot, scorpionweed, nama, wooly guara, wooly dalea, spectaclepod mustard, bladderpod mustard, menodora, prickly lettuce, lambsquarter, wooly Indianwheat and wild buckwheat.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	480	720	960
Forb	90	135	180
Shrub/Vine	30	45	60
Total	**600**	**900**	**1200**

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	35-40%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	35-45%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	15-20%

Figure 7. Plant community growth curve (percent production by month). NM2804, R042XC004NM-Sandy-HCPC. SD-3 Sandy - Warm season plant community .

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	1	3	4	10	10	25	30	12	5	0	0

State 2
Shinnery Oak Dominated

Community 2.1
Shinnery Oak Dominated

Shinnery Oak Dominated: This state is dominated by Shinnery oak with subdominant grass species from the historic plant community. Bare ground is a significant component in this state. Shinnery oak tends to be clumped in distribution in finer soil textures. Shinnery oak density increases (as well as dropseeds, threeawns, and blue grama) in coarse textured (e.g., Loamy Sand sites) and deeper, coarse textured (e.g., Deep Sand and Sandhills sites) soils. Shinnery oak predominates during periods of above average (i.e., 16 in.) precipitation during the months of July and August. Abundance and distribution also increases with disturbance, such as excessive grazing and fire, due to an aggressive rhizome system. Shinnery oak's extensive root system allows competitive exclusion of grasses and forbs. Brush control with herbicide treatments applied in the spring can reduce Shinnery oak (Herbel et al. 1979, Pettit 1986). In addition, repetitive seasons of goat browsing can also decrease Shinnery oak abundance. However, brush management should maintain shrub patches to prevent erosion and to provide wildlife cover and forage. Diagnosis: This state represents a clumped distribution of Shinnery oak with patches of bare ground and subdominant grass species, such as black grama, dropseeds, threeawns, and blue grama. Shinnery oak density increases, as do dropseeds, threeawns, and blue grama, as Sandy site intergrades with Deep Sand and Sandhills sites. Transition to Shinnery Oak-Dominated State (1a): Decrease in black grama with subsequent decrease in dropseeds and threeawns. Increase in Shinnery oak as a result of drought, above average precipitation (>16 inches), grazing, fire suppression, interspecific competition, and coarse textured soils. Key indicators of approach to transition: • Loss of black grama and other grass species cover • Increase of dropseed/threeawn and shinnery oak • Surface soil erosion and bare patch expansion Transition to Historic Plant Community (1b): The Shinnery oak-dominated state begins to transition toward the historic plant community as drivers such as drought, but also above average precipitation (e.g., 16 inches) discontinue. Brush control can also drive the Shinnery oak state toward a grassland state.

State 3
Sand Sage Dominated

Community 3.1
Sand Sage Dominated

Sand Sage Dominated: This state is dominated by sand sage with subdominant grass species from the historic plant community. Sand sage occurs as a result of insufficient herbicide application in Shinnery oak dominated sites with subdominant sand sage. Sand sage either reestablishes dominance or colonizes from an off-site location and stabilizes soils. Sand sage stabilizes light sandy soils from wind erosion and provides a harbor for grass and forb species in heavily grazed conditions (Davis and Bonham 1979). Sand sage abundance increases with drought and/or heavy grazing, but decreases with light grazing due to herbaceous plant competition. Grass and forb species can reestablish as competition from sand sage is relatively light. Herbicide applied in the spring, especially when growth and photosynthesis rates are greatest, can reduce sand sage if there is subsequent rest from grazing (Herbel et al. 1979, Pettit 1986). Brush management should maintain patches of sand sage to prevent wind erosion and subsequent dune formation. Diagnosis: This state is dominated by sand sage with subdominant grass species, such as black grama, dropseeds, threeawns, and blue grama. Sand sage tends to occur in sites with coarser textured soils. Transition to Sand Sage Dominated (2): Sand sage appears from off-site locations and/or increases after insufficient herbicide applications aimed at removing Shinnery oak and sand sage. Key indicators of approach to transition: • Increase of sand sage seedlings and grasses • Reduced soil erosion Transition to Historic Plant Community (3): The sand sage dominated state transitions toward the historic plant community as sand sage decreases primarily through brush management but also with light intensity grazing management. Drought reduction will also support a transition to the historic plant community.

State 4
Lehmann Lovegrass + Natives

Community 4.1
Lehmann Lovegrass + Natives

Lehmann Lovegrass + Natives: This state is dominated by Lehmann lovegrass with subdominant grass species from the historic plant community. Lehmann lovegrass is a warm-season, perennial bunchgrass that was introduced from South Africa in the 1930's for rangeland restoration purposes (Humphrey 1970). Lehmann lovegrass invades from off-site locations with projects utilizing lovegrass for reseeding, soil stabilization, or highway projects. Lehmann lovegrass provides a winter and early spring forage for grazing. Lehmann lovegrass is vigorous in sandy to sandy loam soils which receive approximately 6-8 inches of summer precipitation (Cox et al. 1988). Lehmann lovegrass's aggressive competitive exclusion of native grass species has been attributed to lovegrass's low summer palatability, which reduces vigor of native species and allows lovegrass to increase vigor before grazing. Also, Lehmann lovegrass abundant seed production and establishment, especially after disturbances, allows for increased competition (Cable 1971, Cox et al. 1981). Lehmann lovegrass generally is tolerant to fire because of an aggressive seed-bank; however, severe fires can cause mature lovegrass mortality (Sumrall et al. 1991). Herbicide and reseeding is recommended for control of Lehmann lovegrass (Winn 1991). Diagnosis: Lehmann lovegrass and grass species from the historic plant community, such as black grama, dropseeds, threeawns, and blue grama, dominate this state. Transition to Lehmann lovegrass and native grass species (4a): Decrease in black grama with subsequent decrease in dropseeds and threeawns. Increase in Lehmann lovegrass as a result of drought, grazing, fire and interspecific competition from nearby sources of Lehmann lovegrass. Key indicators of approach to transition: • Loss of black grama and other grass species cover • Disturbance and nearby source of Lehmann lovegrass • Increase of Lehmann lovegrass seedlings Transition to Historic Plant Community (4b): The Lehmann lovegrass/native grass state transitions toward the historic plant community after actions such as herbicide application and native reseeding have occurred. In addition, prevention of disturbances such as fire and livestock grazing also will encourage the transition to a native grass community

State 5
Grass/Mesquite

Community 5.1
Grass/Mesquite

Grass/Mesquite: This state is dominated by honey mesquite with dropseeds and/or threeawns. Black grama generally is rare as a result of heavy grazing intensity. Honey mesquite invades through seed dispersal from grazing livestock and/or wildlife. Dropseeds and threeawns cohabitate with mesquite due to sufficient precipitation. Mesquite tends to be arborescent due to less soil erosion relative to the Coppice Dunes state which reflects large soil loss. Mesquite obtains approximately half of its nitrogen from symbiotic bacteria housed in root nodules (Lajtha and Schlesinger 1986). Mesquite also provides nitrogen and soil organic matter to co-dominant grasses (Ansley and Jacoby 1998, Ansley et al. 1998). Historical fire occurrences reduced mesquite abundance by disrupting seed production cycles and suppressing seedlings; thus, grass species remained dominant. However, fire suppression has allowed mesquite to increase in density and abundance, increasing mesquite resistance to fires through aggressive resprouting. Herbicide application combined with subsequent prescribed fire may be effective in mesquite reduction (Britton and Wright 1971). Diagnosis: This state is co-dominated by honey mesquite and dropseeds or threeawns. Transition to Grass/Mesquite State (5a): This state occurs due to a decrease in black grama primarily from heavy grazing intensity and from an introduction of mesquite seeds from grazers. Dropseeds and threeawns increase and co-exist in the absence of black grama. Fire suppression also is responsible for an increase in mesquite. Key indicators of approach to transition: • Loss of black grama • Increase of dropseeds and/or threeawns • Increase of mesquite seedlings Transition to Historic Plant Community (5b): Transition to the historic plant community requires brush management though herbicide application and possibly prescribed fire to reduce mesquite abundance. Once shrub species are removed, prescribed fire may be useful in maintaining a dominant grassland. Precipitation is also necessary in conjunction with management activities to support a dominant grassland.

State 6

Coppice Dunes

Community 6.1
Coppice Dunes

Coppice Dunes: This state is dominated by coppice mesquite dunes with minimal or no grass cover. Honey mesquite occurs in a multi-stemmed growth form which cultivates it's dune formation by entrapping drifting sands. Mesquite utilizes its extensive tap and lateral roots to benefit from moisture deep in coarse textured soils. Grass species cannot compete for moisture, especially with compounding perturbations such as heavy grazing and drought. Soils succumb to wind erosion with the depletion of grass cover and eventually dunes form around mesquite plants (Gould 1982). Brush management is limited to herbicide application, biological control, or manual removal, as a lack of grass cover prevents prescribed burning. Seeding subsequent to brush control may transition this State toward the historic plant community. Diagnosis: This state is characterized by low growing, multi-stemmed mesquite plants which form Coppice dunes by drifting soils from wind erosion. As grass cover decreases, windblown soils are removed from unprotected, inter-dune areas. Soils are then re-deposited on dunes which increases dune size. Transition to Mesquite Coppice Dunes State (6): Decrease in black grama with subsequent decrease in dropseeds and threeawns due to competition with mesquite especially during drought, heavy grazing, and fire suppression. Competitive exclusion of grasses leads to wind erosion of sandy soils and dune formation of low growing mesquite plants. Key indicators of approach to transition: • Loss of black grama and other grass species cover • Wind erosion as evidenced by pedestalled plants • Bare patch expansion • Increase of Coppice dune mesquites Transition to Historic Plant Community (7): Transition toward the historic plant community requires mesquite removal though either herbicide application, biological control, or manual removal. In addition, seeding of native grass species with subsequent years of sufficient moisture is critical.

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					
1	**Warm Season**			315–360	
	black grama	BOER4	*Bouteloua eriopoda*	315–360	–
2	**Warm Season**			45–90	
	blue grama	BOGR2	*Bouteloua gracilis*	45–90	–
3	**Warm Season**			27–45	
	bush muhly	MUPO2	*Muhlenbergia porteri*	27–45	–
4	**Warm Season**			90–135	
	spike dropseed	SPCO4	*Sporobolus contractus*	90–135	–
	sand dropseed	SPCR	*Sporobolus cryptandrus*	90–135	–
	mesa dropseed	SPFL2	*Sporobolus flexuosus*	90–135	–
5	**Warm Season**			27–45	
	threeawn	ARIST	*Aristida*	27–45	–
6	**Warm Season**			27–45	
	plains bristlegrass	SEVU2	*Setaria vulpiseta*	27–45	–
7	**Warm Season**			27–45	
	Arizona cottontop	DICA8	*Digitaria californica*	27–45	–
8	**Warm Season**			45–72	
	silver bluestem	BOSA	*Bothriochloa saccharoides*	45–72	–
	little bluestem	SCSC	*Schizachyrium scoparium*	45–72	–
9	**Warm Season**			9–27	
	vine mesquite	PAOB	*Panicum obtusum*	9–27	–

10	**Warm Season**			9–27	
	tobosagrass	PLMU3	*Pleuraphis mutica*	9–27	–
11	**Other Perennial Grasses**			9–27	
	Grass, perennial	2GP	*Grass, perennial*	9–27	–
Shrub/Vine					
12	**Shrub**			9–45	
	yucca	YUCCA	*Yucca*	9–45	–
13	**Shrub**			9–27	
	catclaw mimosa	MIACB	*Mimosa aculeaticarpa var. biuncifera*	9–27	–
14	**Shrub**			9–27	
	fourwing saltbush	ATCA2	*Atriplex canescens*	9–27	–
15	**Shrub**			9–27	
	jointfir	EPHED	*Ephedra*	9–27	–
16	**Shrub**			9–27	
	javelina bush	COER5	*Condalia ericoides*	9–27	–
17	**Shrub**			9–27	
	sand sagebrush	ARFI2	*Artemisia filifolia*	9–27	–
	broom snakeweed	GUSA2	*Gutierrezia sarothrae*	9–27	–
18	**Other Shrubs**			9–27	
	Shrub (>.5m)	2SHRUB	*Shrub (>.5m)*	9–27	–
Forb					
19	**Forb**			27–63	
	croton	CROTO	*Croton*	27–63	–
	globemallow	SPHAE	*Sphaeralcea*	27–63	–
20	**Forb**			27–45	
	curlycup gumweed	GRSQ	*Grindelia squarrosa*	27–45	–
	woolly groundsel	PACA15	*Packera cana*	27–45	–
21	**Forb**			9–27	
	Adonis blazingstar	MEMU3	*Mentzelia multiflora*	9–27	–
22	**Forb**			27–45	
	redstem stork's bill	ERCI6	*Erodium cicutarium*	27–45	–
	Texas stork's bill	ERTE13	*Erodium texanum*	27–45	–
23	**Other Forbs**			9–27	
	Forb (herbaceous, not grass nor grass-like)	2FORB	*Forb (herbaceous, not grass nor grass-like)*	9–27	–

Animal community

This site provides habitat which support a resident animal community that is characterized by pronghorn antelope, black-tailed jackrabbit, spotted ground squirrel, black-tailed prairie dog, yellow-faced pocket gopher, Ord's kangaroo rat, Northern grasshopper mouse, southern plains woodrat, badger, meadowlark, roadrunner, burrowing owl, white-necked raven, cactus wren, pyrrhuloxia, lesser prairie chicken, mourning dove, scaled quail, Harris' hawk, side-blotched lizard, marbled whiptail, Texas horned lizard, prairie rattlesnake, plains spadefoot toad, and ornate box turtle.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.
Hydrologic Interpretations

Soil Series Hydrologic Group
Anthony B
Berino B
Cacique C *shallow soil
Harkey B
Pajaritio B
Reakor B
Mobeetie B
Wink B
Sotim B
Vinton B
Drake B
Onite B
Alma B
Poquita B
Dona Ana B
Monahans B

Recreational uses

This site offers recreation potential for hiking, horseback riding, nature observation, and photography, bird, antelope and predator hunting. During years of abundant spring moisture, this site displays a colorful array of wildflowers.

Wood products

This site has no potential for wood products.

Other products

This site is suitable for grazing by all classes and kinds of livestock during all seasons of the year. Under retrogression, plants such as black grama, blue grama, bush muhly, plains bristlegrass, Arizona cottontop, vine mesquite, little bluestem and fourwing saltbush will decrease while the dropseeds, threeawns, tobosa, yucca, catclaw mimosa, javelinabush, mesquite and broom snakeweed will increase. This site responds well to brush management and deferment. It is best suited to a system of management that rotates the season of use.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index Ac/AUM
100 - 76 2.7 – 3.8
75 – 51 3.5 – 5.0
50 – 26 5.0 – 8.0
25 – 0 8.1 +

Inventory data references

Other References:
Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico. This site has been mapped and correlated with soils in the following soil surveys. Eddy County, Lea County, and Chaves County.

Other references

Other References:
Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico. This site has been mapped and correlated with soils in the following soil surveys. Eddy County, Lea County, and Chaves County.

Literature Cited

Ansley, R. J.; Jacoby, P. W. 1998. Manipulation of fire intensity to achieve mesquite management goals in north Texas. In: Pruden, Teresa L.; Brennan, Leonard A., eds. Fire in ecosystem management: shifting the paradigm from suppression to prescription: Proceedings, Tall Timbers fire ecology conference; 1996 May 7-10; Boise, ID. No. 20. Tallahassee, FL: Tall Timbers Research Station:195-204.

Ansley, R. J.; Jones, D. L.; Tunnell, T. R.; [and others]. 1998. Honey mesquite canopy responses to single winter fires: relation to herbaceous fuel, weather and fire temperature. International Journal of Wildland Fire 8(4):241-252.

Britton, Carlton M.; Wright, Henry A. 1971. Correlation of weather and fuel variables to mesquite damage by fire. Journal of Range Management 24:136-141.

Cable, Dwight R. 1971. Lehmann lovegrass on the Santa Rita Experimental Range, 1937-1968. Journal of Range Management 24:17-21.

Canfield, R. H. 1939. The effect of intensity and frequency of clipping on density and yield of black grama and tobosa grass. Tech. Bull. 681. Washington, DC: U.S. Department of Agriculture. 32 p.

Cox, Jerry R.; Ruyle, G.B.; Fourle, Jan H.; Donaldson, Charlie. 1988. Lehmann lovegrass—central South Africa and Arizona, USA. Rangelands 10(2):53-55

Contributors

Don Sylvester
Quinn Hodgson

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

    Dominant:

    Sub-dominant:

    Other:

    Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**

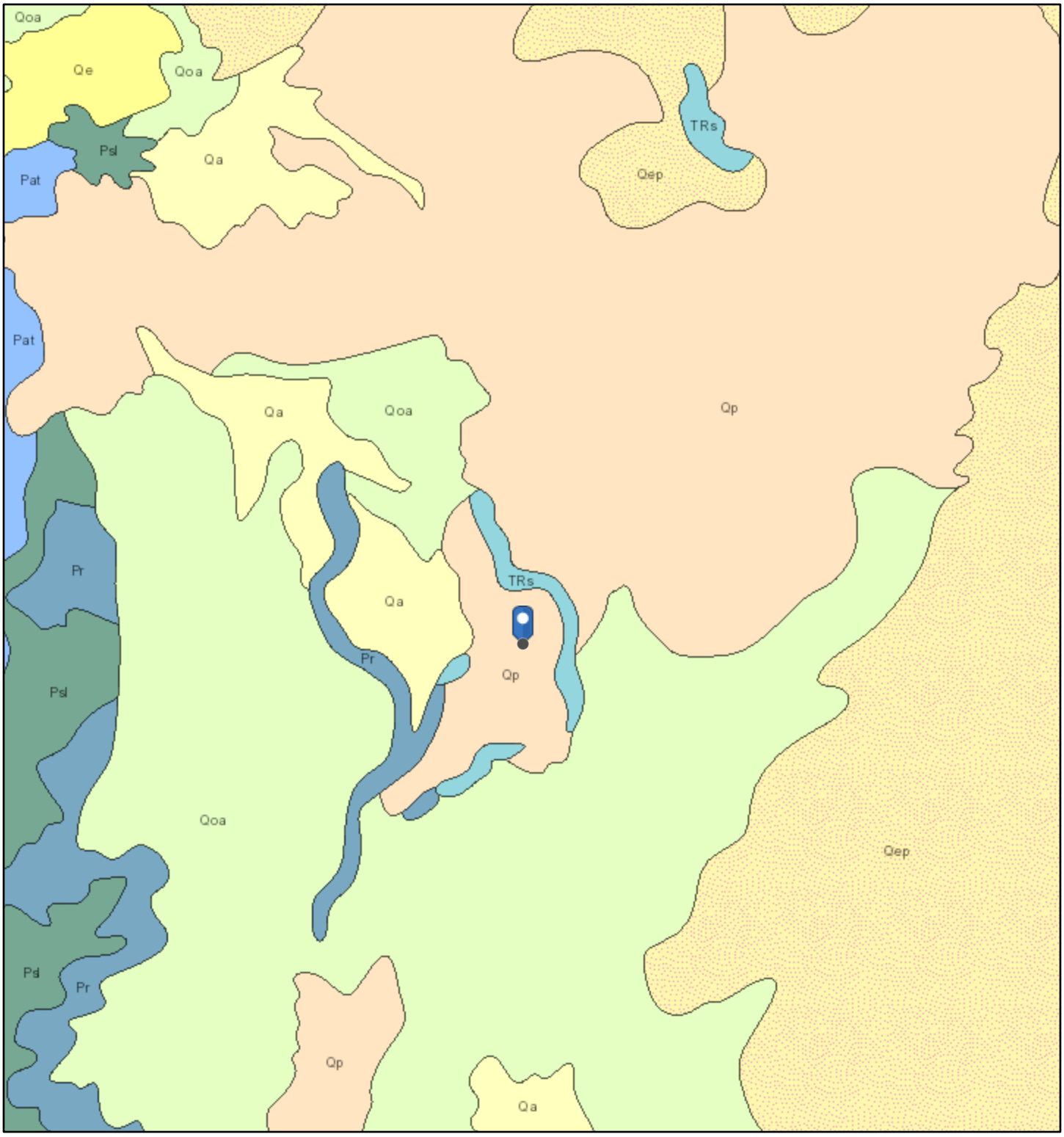
14. **Average percent litter cover (%) and depth (in):**

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:**

17. **Perennial plant reproductive capability:**

Dawson Creek State #2 Geology



6/23/2024, 5:41:15 PM

1:144,448

0 1 2 4 mi

0 1.5 3 6 km

Lithologic Units

- Playa——Alluvium and evaporite deposits (Holocene)
- Water——Perenial standing water
- Qa——Alluvium (Holocene to upper Pleistocene)

Esri, NASA, NGA, USGS, NMBGMR, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS

ArcGIS Web AppBuilder

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National

APPENDIX C – Daily Field Reports

Daily Site Visit Report

Client:	Mack Energy Corporation	Inspection Date:	6/18/2024
Site Location Name:	Dawson Creek State #2	Report Run Date:	6/18/2024 11:28 PM
Client Contact Name:	Matt Buckles	API #:	30-005-64385
Client Contact Phone #:	575-748-1288		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	6/18/2024 12:25 PM
Departed Site	6/18/2024 3:20 PM

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

Field Notes

12:52 On site, looking for release coordinates.

13:25 Walked the length of the release, beginning to collect surface samples

15:09 Mapped points so far, collected all surface samples, completing one call

Next Steps & Recommendations

1 Begin delineation

Daily Site Visit Report

Site Photos

Viewing Direction: West	**Viewing Direction**: West
	
Approximate release area	Approximate release area
Viewing Direction: West	**Viewing Direction**: Northwest
	
Approximate release area	Approximate release area

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: South
	
Approximate release area, north finger	Approximate release area
Viewing Direction: Southwest	**Viewing Direction**: West
	
Approximate release area, north finger	Approximate release area

Daily Site Visit Report

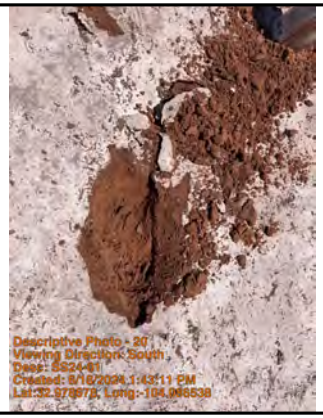
Viewing Direction: Northwest	**Viewing Direction**: West
	
Approximate release area	Approximate release area
Viewing Direction: Northwest	**Viewing Direction**: East
	
Approximate release area	Approximate release area

Daily Site Visit Report

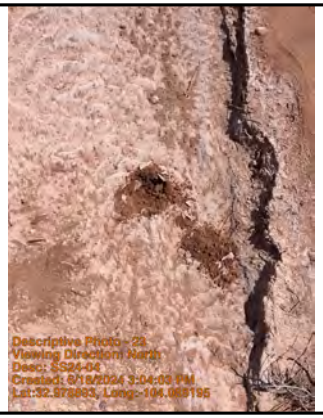
Viewing Direction: North	**Viewing Direction**: West
	
Release area east of culvert	Release area west of culvert
Viewing Direction: West	**Viewing Direction**: West
	
Approximate release area	Approximate release area

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: West
	
Approximate release area	One call area from southeast corner

Viewing Direction: South	**Viewing Direction**: South
	
One call area from northeast corner	SS24-01

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: West
	
SS24-02	SS24-03
Viewing Direction: North	**Viewing Direction**: East
	
SS24-04	One call area from northwest corner

Daily Site Visit Report

Viewing Direction: Northeast

One call area from southwest corner

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature:



Daily Site Visit Report

Client:	Mack Energy Corporation	Inspection Date:	9/5/2024
Site Location Name:	Dawson Creek State #2	Report Run Date:	9/6/2024 12:51 AM
Client Contact Name:	Matt Buckles	API #:	30-005-64385
Client Contact Phone #:	575-748-1288		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	9/5/2024 8:28 AM
Departed Site	

Field Notes

15:19 Arrived on site, completed safety paperwork and conducted a site walk through.

15:20 Mapped out the all 5 excavations with the GNSS Trimble unit.

15:22 Collected 27 samples. All samples were field screened for chlorides using silver nitrate titration and 14 samples were screened for TPH using a Dexsil Petroflag.

15:22 All 27 samples met NMOCD strictest criteria.

Next Steps & Recommendations

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: North
	
Overview of the eastern 2ft bgs excavation.	3ft excavation inside the large. 2ft bgs area.
Viewing Direction: East	**Viewing Direction**: North
	
Eastern wall on the east 3’ excavation.	Northern wall on the 3ft excavation.

Daily Site Visit Report

Viewing Direction: West	**Viewing Direction**: South
	
2ft bgs excavation.	Southern wall on the east 3ft bgs excavation.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Rewis

Signature:

Daily Site Visit Report

Client:	Mack Energy Corporation	Inspection Date:	9/13/2024
Site Location Name:	Dawson Creek State #2	Report Run Date:	9/16/2024 12:07 PM
Client Contact Name:	Matt Buckles	API #:	30-005-64385
Client Contact Phone #:	575-748-1288		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	9/13/2024 8:29 AM
Departed Site	9/13/2024 4:20 PM

Field Notes

10:28 Completed site safety work upon arrival

6:04 Completed 14 additional base samples in the second from the west excavation. 8 are still needed in the upper section of that excavation

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: West



Base samples 99 and 100 in the second from the west excavation

Viewing Direction: West



Base samples 97 and 98 in the second from the west excavation

Viewing Direction: West



Base samples 95 and 96 in the second from the west excavation

Viewing Direction: West



Base samples 93 and 94 in the second from the west excavation

Daily Site Visit Report

Viewing Direction: West



Base samples 106 and 105 in the second from the west excavation

Viewing Direction: West



Base samples 104 and 103 in the second from the west excavation

Viewing Direction: West



Base samples 102 and 101 in the second from the west excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Katrina Taylor

Signature: 

Daily Site Visit Report

Client:	Mack Energy Corporation	Inspection Date:	9/27/2024
Site Location Name:	Dawson Creek State #2	Report Run Date:	9/30/2024 5:30 PM
Client Contact Name:	Matt Buckles	API #:	30-005-64385
Client Contact Phone #:	575-748-1288		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	9/27/2024 8:39 AM
Departed Site	9/27/2024 4:15 PM

Field Notes

9:39 Completed safety work upon arrival

9:38 The north wall of the central excavation was sampled. Excavation continued on walls 6, 5, 7, 13, and 9 as well as base samples 77, 78, 79, 55, 56, 49, 40, 38, 62, and 54.

9:38 Found clean on base samples 77, 78, and 79 as well as wall 6.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: North
	
Northern deeper excavation in the eastern most excavation marked “down” for continuing excavation.	Northwest area in the eastern most excavation marked “down” for continuing excavation.

Daily Site Visit Report

Viewing Direction: North



Wall 13 in the second from the east excavation northern section sampled to see which section is hot

Viewing Direction: North



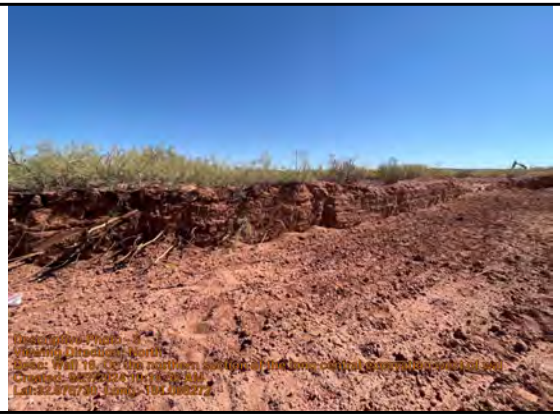
Wall 16. On the northern east section of the long central excavation

Viewing Direction: North



Wall 17. On the northern section of the long central excavation west of wall 16

Viewing Direction: North



Wall 18. On the northern section of the long central excavation west of wall 17

Daily Site Visit Report

Viewing Direction: North



Wall 19. On the northern section of the long central excavation west of wall 18

Viewing Direction: North



Wall 20. On the northern section of the long central excavation west of wall 19

Viewing Direction: North



Wall 21. On the northern section of the long central excavation west of wall 20

Viewing Direction: South



Wall 13 dug out 6 additional inches

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: North
	
Excavation markings left on the western part of the central excavation	Excavation markings left on the Eastern part of the central excavation
Viewing Direction: East	**Viewing Direction**: North
	
Flagging added to the excavation for safety and visibility as we continued to excavate out towards the road.	Excavation as it looked when the tech left the site on 9/27

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Katrina Taylor

Signature: 
Signature

Daily Site Visit Report

Client:	Mack Energy Corporation	Inspection Date:	10/1/2024
Site Location Name:	Dawson Creek State #2	Report Run Date:	10/7/2024 1:11 PM
Client Contact Name:	Matt Buckles	API #:	30-005-64385
Client Contact Phone #:	575-748-1288		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/1/2024 8:40 AM
Departed Site	10/1/2024 4:13 PM

Field Notes

15:06 Safety paper work was completed and signed by others before work began

15:07 Walls 7 and 5 were excavated until clean was found

15:17 The south section of the eastern most excavation was excavated till field screens showed bellow 600ppm

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: North
	
Overview of the eastern excavation in the site as it looked at the end of day	Wall 9 (west side of deeper excavation) and BS24-38 had been further excavated prior and were field screened bellow 600

Daily Site Visit Report

Viewing Direction: North



Central deeper excavation of base samples 55, 56, 49, and 40. Additional walls of WS24-24 and WS24-25 were created

Viewing Direction: North



Walls 22 and 23 created by deepening base samples 77, 78, and 79

Viewing Direction: East



Wall 5 expanded further towards a the road

Daily Site Visit Report

VERTEX

Daily Site Visit Signature

Inspector: Katrina Taylor

Signature: 

Signature

Daily Site Visit Report

Client:	Mack Energy Corporation	Inspection Date:	10/23/2024
Site Location Name:	Dawson Creek State #2	Report Run Date:	10/28/2024 5:40 PM
Client Contact Name:	Matt Buckles	API #:	30-005-64385
Client Contact Phone #:	575-748-1288		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/23/2024 12:45 PM
Departed Site	10/23/2024 4:30 PM

Field Notes

14:09 Completed safety paperwork upon arrival

14:10 Did final sampling to catch any loose ends

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast



BS24-22 in the east central of the eastern excavation

Viewing Direction: East



BS24-29 and WS25-43

Viewing Direction: West



BS24-126

Viewing Direction: West



BS24-127

Daily Site Visit Report

Viewing Direction: North



BS24-128 and BS24-129

Viewing Direction: North



BS24-130

Viewing Direction: West



BS24-131

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Katrina Taylor

Signature: 

APPENDIX D – Notifications

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 379273

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 379273
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**Dawson Creek State #002 Layflat Release**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/04/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 379273
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	8/29/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 379275

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 379275
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**Dawson Creek State #002 Layflat Release**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/05/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 379275
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	8/29/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 379276

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 379276
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**Dawson Creek State #002 Layflat Release**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/06/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 379276
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	8/29/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 380807

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 380807
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**Dawson Creek State #002 Layflat Release**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/07/2024
Time sampling will commence	08:30 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 380807
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	9/5/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 380815

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 380815
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**Dawson Creek State #002 Layflat Release**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/09/2024
Time sampling will commence	08:30 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 380815
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	9/5/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 385967

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 385967
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/26/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 385967

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 385967
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	9/23/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 385982

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 385982
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/27/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 385982
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	9/23/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 387625

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 387625
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/01/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 387625

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 387625
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	9/26/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 388019
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	10,000
What is the estimated number of samples that will be gathered	50
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/02/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 388019
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	9/27/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 388953

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 388953
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/03/2024
Time sampling will commence	04:00 PM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 388953
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/1/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 388956

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 388956
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/04/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 388956

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 388956
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/1/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 389460

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 389460
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/07/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 389460
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/2/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 389829
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	20,000
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/08/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 389829
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/3/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 393332

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 393332
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	2,000
What is the estimated number of samples that will be gathered	10
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/21/2024
Time sampling will commence	08:30 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 393332
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/17/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 393481

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 393481
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	2,000
What is the estimated number of samples that will be gathered	10
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/22/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 393481
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/17/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 394173

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 394173
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	4,000
What is the estimated number of samples that will be gathered	20
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/23/2024
Time sampling will commence	12:30 PM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 394173
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/21/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 398294
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Site Name	**DAWSON CREEK STATE #002 LAYFLAT RELEASE**
Date Release Discovered	**06/14/2024**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	400
What is the estimated number of samples that will be gathered	2
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/06/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sally Carttar 575.361.3561
Please provide any information necessary for navigation to sampling site	From the intersection of 82 and CR 225 Hilltop Rd, drive south on CR 225 for approximately 1.5 miles and turn left (east) onto an access road. The location will be on your immediate left (0.01 miles). 32.7914047,-104.2268219

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 398294
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
scarttar	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/1/2024

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/31/2024 10:03:46 AM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-7606-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/31/2024 10:03:46 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-7606-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 30
QC Association Summary 37
Lab Chronicle 43
Certification Summary 51
Chain of Custody 52
Receipt Checklists 54

Definitions/Glossary

Client: Vertex Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-7606-1
Project: Dawson Creek State #2

Job ID: 885-7606-1 Eurofins Albuquerque

Job Narrative
885-7606-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/10/2024 8:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-01 0'
Lab Sample ID: 885-7606-1
Date Collected: 07/08/24 09:00
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/10/24 15:08	07/11/24 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*35 - 166*	*07/10/24 15:08*	*07/11/24 15:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 15:08	07/11/24 15:49	1
Ethylbenzene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 15:49	1
Toluene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 15:49	1
Xylenes, Total	ND		0.099		mg/Kg		07/10/24 15:08	07/11/24 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/10/24 15:08*	*07/11/24 15:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/11/24 11:50	07/11/24 18:14	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/11/24 11:50	07/11/24 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*07/11/24 11:50*	*07/11/24 18:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 07:01	07/12/24 09:31	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-01 2'

Date Collected: 07/08/24 09:05
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/10/24 15:08	07/11/24 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/10/24 15:08*	*07/11/24 16:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 16:54	1
Ethylbenzene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 16:54	1
Toluene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 16:54	1
Xylenes, Total	ND		0.096		mg/Kg		07/10/24 15:08	07/11/24 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/10/24 15:08*	*07/11/24 16:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/11/24 11:50	07/11/24 18:25	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/11/24 11:50	07/11/24 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*07/11/24 11:50*	*07/11/24 18:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61		mg/Kg		07/12/24 07:01	07/12/24 10:35	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-01 4'

Date Collected: 07/08/24 09:10
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/10/24 15:08	07/11/24 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/10/24 15:08*	*07/11/24 18:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 18:00	1
Ethylbenzene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 18:00	1
Toluene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 18:00	1
Xylenes, Total	ND		0.097		mg/Kg		07/10/24 15:08	07/11/24 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/10/24 15:08*	*07/11/24 18:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/11/24 11:50	07/11/24 18:37	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/11/24 11:50	07/11/24 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*79*		*62 - 134*	*07/11/24 11:50*	*07/11/24 18:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 07:01	07/12/24 11:14	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-02 0'

Date Collected: 07/08/24 09:15
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/10/24 15:08	07/11/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/10/24 15:08*	*07/11/24 18:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 15:08	07/11/24 18:22	1
Ethylbenzene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 18:22	1
Toluene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 18:22	1
Xylenes, Total	ND		0.10		mg/Kg		07/10/24 15:08	07/11/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/10/24 15:08*	*07/11/24 18:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/11/24 11:50	07/11/24 18:48	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/11/24 11:50	07/11/24 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*07/11/24 11:50*	*07/11/24 18:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4800**		300		mg/Kg		07/12/24 07:01	07/16/24 18:21	100

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-02 2'

Date Collected: 07/08/24 09:20
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/10/24 15:08	07/11/24 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/10/24 15:08*	*07/11/24 18:43*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/10/24 15:08	07/11/24 18:43	1
Ethylbenzene	ND		0.047		mg/Kg		07/10/24 15:08	07/11/24 18:43	1
Toluene	ND		0.047		mg/Kg		07/10/24 15:08	07/11/24 18:43	1
Xylenes, Total	ND		0.093		mg/Kg		07/10/24 15:08	07/11/24 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/10/24 15:08*	*07/11/24 18:43*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/11/24 11:50	07/11/24 19:00	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/11/24 11:50	07/11/24 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*07/11/24 11:50*	*07/11/24 19:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99**		60		mg/Kg		07/12/24 07:01	07/12/24 11:40	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-02 4'
Lab Sample ID: 885-7606-6
Date Collected: 07/08/24 09:30
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/10/24 15:08	07/11/24 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/10/24 15:08*	*07/11/24 19:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 19:05	1
Ethylbenzene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 19:05	1
Toluene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 19:05	1
Xylenes, Total	ND		0.098		mg/Kg		07/10/24 15:08	07/11/24 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/10/24 15:08*	*07/11/24 19:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/11/24 11:50	07/11/24 19:11	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/11/24 11:50	07/11/24 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*86*		*62 - 134*	*07/11/24 11:50*	*07/11/24 19:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**700**		60		mg/Kg		07/12/24 07:01	07/12/24 11:53	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-03 0'

Date Collected: 07/08/24 10:00
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/10/24 15:08	07/11/24 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/10/24 15:08*	*07/11/24 19:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 19:27	1
Ethylbenzene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 19:27	1
Toluene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 19:27	1
Xylenes, Total	ND		0.098		mg/Kg		07/10/24 15:08	07/11/24 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/10/24 15:08*	*07/11/24 19:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/11/24 11:50	07/11/24 19:22	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/11/24 11:50	07/11/24 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*86*		*62 - 134*	*07/11/24 11:50*	*07/11/24 19:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		60		mg/Kg		07/12/24 07:01	07/12/24 12:05	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-03 2'

Date Collected: 07/08/24 10:10
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/10/24 15:08	07/11/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/10/24 15:08*	*07/11/24 19:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/10/24 15:08	07/11/24 19:49	1
Ethylbenzene	ND		0.046		mg/Kg		07/10/24 15:08	07/11/24 19:49	1
Toluene	ND		0.046		mg/Kg		07/10/24 15:08	07/11/24 19:49	1
Xylenes, Total	ND		0.093		mg/Kg		07/10/24 15:08	07/11/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/10/24 15:08*	*07/11/24 19:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/11/24 11:50	07/11/24 19:34	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/11/24 11:50	07/11/24 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*07/11/24 11:50*	*07/11/24 19:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		60		mg/Kg		07/12/24 07:01	07/12/24 12:44	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-03 4'

Date Collected: 07/08/24 10:15
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/10/24 15:08	07/11/24 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/10/24 15:08*	*07/11/24 20:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 15:08	07/11/24 20:54	1
Ethylbenzene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 20:54	1
Toluene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 20:54	1
Xylenes, Total	ND		0.10		mg/Kg		07/10/24 15:08	07/11/24 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/10/24 15:08*	*07/11/24 20:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/11/24 11:50	07/11/24 19:45	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/11/24 11:50	07/11/24 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*07/11/24 11:50*	*07/11/24 19:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**210**		61		mg/Kg		07/12/24 07:01	07/12/24 12:57	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-04 0'
Lab Sample ID: 885-7606-10
Date Collected: 07/08/24 10:20
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/10/24 15:08	07/11/24 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/10/24 15:08*	*07/11/24 21:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 15:08	07/11/24 21:16	1
Ethylbenzene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 21:16	1
Toluene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 21:16	1
Xylenes, Total	ND		0.099		mg/Kg		07/10/24 15:08	07/11/24 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/10/24 15:08*	*07/11/24 21:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/11/24 11:50	07/11/24 19:56	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/11/24 11:50	07/11/24 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*07/11/24 11:50*	*07/11/24 19:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 07:01	07/12/24 13:10	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-04 2'

Date Collected: 07/08/24 10:25
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-11

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/10/24 15:08	07/11/24 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/10/24 15:08*	*07/11/24 21:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 21:38	1
Ethylbenzene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 21:38	1
Toluene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 21:38	1
Xylenes, Total	ND		0.097		mg/Kg		07/10/24 15:08	07/11/24 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/10/24 15:08*	*07/11/24 21:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/11/24 11:50	07/11/24 20:18	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/11/24 11:50	07/11/24 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/11/24 11:50*	*07/11/24 20:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		07/12/24 07:01	07/12/24 13:23	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-04 4'

Date Collected: 07/08/24 10:30
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-12

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/10/24 15:08	07/11/24 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/10/24 15:08*	*07/11/24 22:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 22:00	1
Ethylbenzene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 22:00	1
Toluene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 22:00	1
Xylenes, Total	ND		0.096		mg/Kg		07/10/24 15:08	07/11/24 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/10/24 15:08*	*07/11/24 22:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/11/24 11:50	07/11/24 20:30	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/11/24 11:50	07/11/24 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*86*		*62 - 134*	*07/11/24 11:50*	*07/11/24 20:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		07/12/24 07:01	07/12/24 13:35	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-05 0'
Lab Sample ID: 885-7606-13
Date Collected: 07/08/24 11:00
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/10/24 15:08	07/11/24 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/10/24 15:08*	*07/11/24 22:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/10/24 15:08	07/11/24 22:22	1
Ethylbenzene	ND		0.046		mg/Kg		07/10/24 15:08	07/11/24 22:22	1
Toluene	ND		0.046		mg/Kg		07/10/24 15:08	07/11/24 22:22	1
Xylenes, Total	ND		0.093		mg/Kg		07/10/24 15:08	07/11/24 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/10/24 15:08*	*07/11/24 22:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/11/24 11:50	07/11/24 20:41	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/11/24 11:50	07/11/24 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/11/24 11:50*	*07/11/24 20:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 07:01	07/12/24 13:48	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-05 2'
Lab Sample ID: 885-7606-14
Date Collected: 07/08/24 11:05
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/10/24 15:08	07/11/24 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/10/24 15:08*	*07/11/24 22:43*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 15:08	07/11/24 22:43	1
Ethylbenzene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 22:43	1
Toluene	ND		0.049		mg/Kg		07/10/24 15:08	07/11/24 22:43	1
Xylenes, Total	ND		0.098		mg/Kg		07/10/24 15:08	07/11/24 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/10/24 15:08*	*07/11/24 22:43*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/11/24 11:50	07/11/24 20:52	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/11/24 11:50	07/11/24 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*07/11/24 11:50*	*07/11/24 20:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 07:01	07/12/24 14:01	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-05 4'
Lab Sample ID: 885-7606-15
Date Collected: 07/08/24 11:10
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/10/24 15:08	07/11/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/10/24 15:08*	*07/11/24 23:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 23:05	1
Ethylbenzene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 23:05	1
Toluene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 23:05	1
Xylenes, Total	ND		0.096		mg/Kg		07/10/24 15:08	07/11/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/10/24 15:08*	*07/11/24 23:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/11/24 11:50	07/11/24 21:03	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/11/24 11:50	07/11/24 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/11/24 11:50*	*07/11/24 21:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66**		60		mg/Kg		07/12/24 09:09	07/12/24 11:31	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-06 0'
Lab Sample ID: 885-7606-16
Date Collected: 07/08/24 11:15
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/10/24 15:08	07/11/24 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/10/24 15:08*	*07/11/24 23:26*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/10/24 15:08	07/11/24 23:26	1
Ethylbenzene	ND		0.046		mg/Kg		07/10/24 15:08	07/11/24 23:26	1
Toluene	ND		0.046		mg/Kg		07/10/24 15:08	07/11/24 23:26	1
Xylenes, Total	ND		0.093		mg/Kg		07/10/24 15:08	07/11/24 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/10/24 15:08*	*07/11/24 23:26*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/11/24 11:50	07/11/24 21:14	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/11/24 11:50	07/11/24 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*07/11/24 11:50*	*07/11/24 21:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 09:09	07/12/24 12:10	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-06 2'
Lab Sample ID: 885-7606-17
Date Collected: 07/08/24 11:20
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/10/24 15:08	07/11/24 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/10/24 15:08*	*07/11/24 23:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/11/24 23:48	1
Ethylbenzene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 23:48	1
Toluene	ND		0.048		mg/Kg		07/10/24 15:08	07/11/24 23:48	1
Xylenes, Total	ND		0.096		mg/Kg		07/10/24 15:08	07/11/24 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/10/24 15:08*	*07/11/24 23:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/11/24 11:50	07/11/24 21:25	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/11/24 11:50	07/11/24 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*07/11/24 11:50*	*07/11/24 21:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 09:09	07/12/24 12:22	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-06 4'
Lab Sample ID: 885-7606-18
Date Collected: 07/08/24 11:25
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/10/24 15:08	07/12/24 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/10/24 15:08*	*07/12/24 00:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/12/24 00:10	1
Ethylbenzene	ND		0.047		mg/Kg		07/10/24 15:08	07/12/24 00:10	1
Toluene	ND		0.047		mg/Kg		07/10/24 15:08	07/12/24 00:10	1
Xylenes, Total	ND		0.094		mg/Kg		07/10/24 15:08	07/12/24 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/10/24 15:08*	*07/12/24 00:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/11/24 11:50	07/11/24 21:36	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/11/24 11:50	07/11/24 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*07/11/24 11:50*	*07/11/24 21:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 09:09	07/12/24 12:35	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-07 0'
Lab Sample ID: 885-7606-19
Date Collected: 07/08/24 12:00
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/10/24 15:08	07/12/24 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/10/24 15:08*	*07/12/24 00:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 15:08	07/12/24 00:54	1
Ethylbenzene	ND		0.047		mg/Kg		07/10/24 15:08	07/12/24 00:54	1
Toluene	ND		0.047		mg/Kg		07/10/24 15:08	07/12/24 00:54	1
Xylenes, Total	ND		0.094		mg/Kg		07/10/24 15:08	07/12/24 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/10/24 15:08*	*07/12/24 00:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/11/24 11:50	07/11/24 21:48	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/11/24 11:50	07/11/24 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*86*		*62 - 134*	*07/11/24 11:50*	*07/11/24 21:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 09:09	07/12/24 12:48	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Client Sample ID: BH24-07 2'

Date Collected: 07/08/24 12:05
Date Received: 07/10/24 08:30

Lab Sample ID: 885-7606-20

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/10/24 15:08	07/12/24 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/10/24 15:08*	*07/12/24 01:15*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 15:08	07/12/24 01:15	1
Ethylbenzene	ND		0.050		mg/Kg		07/10/24 15:08	07/12/24 01:15	1
Toluene	ND		0.050		mg/Kg		07/10/24 15:08	07/12/24 01:15	1
Xylenes, Total	ND		0.099		mg/Kg		07/10/24 15:08	07/12/24 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/10/24 15:08*	*07/12/24 01:15*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/11/24 11:50	07/11/24 21:59	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/11/24 11:50	07/11/24 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*07/11/24 11:50*	*07/11/24 21:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 09:09	07/12/24 13:01	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-07 4'
Lab Sample ID: 885-7606-21
Date Collected: 07/08/24 12:10
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/10/24 16:53	07/11/24 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/10/24 16:53*	*07/11/24 11:43*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 16:53	07/11/24 11:43	1
Ethylbenzene	ND		0.050		mg/Kg		07/10/24 16:53	07/11/24 11:43	1
Toluene	ND		0.050		mg/Kg		07/10/24 16:53	07/11/24 11:43	1
Xylenes, Total	ND		0.10		mg/Kg		07/10/24 16:53	07/11/24 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/10/24 16:53*	*07/11/24 11:43*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/11/24 16:20	07/12/24 16:43	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/11/24 16:20	07/12/24 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*126*		*62 - 134*	*07/11/24 16:20*	*07/12/24 16:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**270**		60		mg/Kg		07/12/24 09:09	07/12/24 13:40	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-08 0'
Lab Sample ID: 885-7606-22
Date Collected: 07/08/24 12:15
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/10/24 16:53	07/11/24 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/10/24 16:53*	*07/11/24 12:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 16:53	07/11/24 12:54	1
Ethylbenzene	ND		0.047		mg/Kg		07/10/24 16:53	07/11/24 12:54	1
Toluene	ND		0.047		mg/Kg		07/10/24 16:53	07/11/24 12:54	1
Xylenes, Total	ND		0.095		mg/Kg		07/10/24 16:53	07/11/24 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/10/24 16:53*	*07/11/24 12:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/11/24 16:20	07/12/24 17:08	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/11/24 16:20	07/12/24 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*76*		*62 - 134*	*07/11/24 16:20*	*07/12/24 17:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 09:09	07/12/24 13:53	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-08 2'
Lab Sample ID: 885-7606-23
Date Collected: 07/08/24 12:20
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/10/24 16:53	07/11/24 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/10/24 16:53*	*07/11/24 14:04*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 16:53	07/11/24 14:04	1
Ethylbenzene	ND		0.048		mg/Kg		07/10/24 16:53	07/11/24 14:04	1
Toluene	ND		0.048		mg/Kg		07/10/24 16:53	07/11/24 14:04	1
Xylenes, Total	ND		0.095		mg/Kg		07/10/24 16:53	07/11/24 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/10/24 16:53*	*07/11/24 14:04*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		07/11/24 16:20	07/12/24 17:19	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/11/24 16:20	07/12/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*128*		*62 - 134*	*07/11/24 16:20*	*07/12/24 17:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/12/24 09:09	07/12/24 14:05	20

Client Sample Results

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-08 4'
Lab Sample ID: 885-7606-24
Date Collected: 07/08/24 12:25
Matrix: Solid
Date Received: 07/10/24 08:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/10/24 16:53	07/11/24 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/10/24 16:53*	*07/11/24 14:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/10/24 16:53	07/11/24 14:28	1
Ethylbenzene	ND		0.047		mg/Kg		07/10/24 16:53	07/11/24 14:28	1
Toluene	ND		0.047		mg/Kg		07/10/24 16:53	07/11/24 14:28	1
Xylenes, Total	ND		0.094		mg/Kg		07/10/24 16:53	07/11/24 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/10/24 16:53*	*07/11/24 14:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/11/24 16:20	07/12/24 17:30	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/11/24 16:20	07/12/24 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/11/24 16:20*	*07/12/24 17:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		60		mg/Kg		07/12/24 09:09	07/12/24 14:18	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8182/1-A
Matrix: Solid
Analysis Batch: 8328

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8182

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/10/24 15:08	07/11/24 15:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/10/24 15:08*	*07/11/24 15:27*	*1*

Lab Sample ID: LCS 885-8182/2-A
Matrix: Solid
Analysis Batch: 8328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8182

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.1		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*35 - 166*

Lab Sample ID: 885-7606-1 MS
Matrix: Solid
Analysis Batch: 8328

Client Sample ID: BH24-01 0'
Prep Type: Total/NA
Prep Batch: 8182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.6	23.4		mg/Kg		95	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*212*	*S1+*	*35 - 166*

Lab Sample ID: 885-7606-1 MSD
Matrix: Solid
Analysis Batch: 8328

Client Sample ID: BH24-01 0'
Prep Type: Total/NA
Prep Batch: 8182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.5	21.7		mg/Kg		88	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8196/1-A
Matrix: Solid
Analysis Batch: 8355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/10/24 16:53	07/11/24 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*07/10/24 16:53*	*07/11/24 11:20*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 885-8196/2-A
Matrix: Solid
Analysis Batch: 8355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8196

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	23.9		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*200*	*S1+*	*35 - 166*

Lab Sample ID: 885-7606-21 MS
Matrix: Solid
Analysis Batch: 8355

Client Sample ID: BH24-07 4'
Prep Type: Total/NA
Prep Batch: 8196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.8	28.3		mg/Kg		114	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*217*	*S1+*	*35 - 166*

Lab Sample ID: 885-7606-21 MSD
Matrix: Solid
Analysis Batch: 8355

Client Sample ID: BH24-07 4'
Prep Type: Total/NA
Prep Batch: 8196

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		25.0	26.0		mg/Kg		104	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*209*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8182/1-A
Matrix: Solid
Analysis Batch: 8329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8182

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 15:08	07/11/24 15:27	1
Ethylbenzene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 15:27	1
Toluene	ND		0.050		mg/Kg		07/10/24 15:08	07/11/24 15:27	1
Xylenes, Total	ND		0.10		mg/Kg		07/10/24 15:08	07/11/24 15:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/10/24 15:08*	*07/11/24 15:27*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-8182/3-A
Matrix: Solid
Analysis Batch: 8329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8182

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.925		mg/Kg		92	70 - 130		
Ethylbenzene			1.00	0.931		mg/Kg		93	70 - 130		
m,p-Xylene			2.00	1.86		mg/Kg		93	70 - 130		
o-Xylene			1.00	0.935		mg/Kg		94	70 - 130		
Toluene			1.00	0.917		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: 885-7606-2 MS
Matrix: Solid
Analysis Batch: 8329

Client Sample ID: BH24-01 2'
Prep Type: Total/NA
Prep Batch: 8182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.953	0.926		mg/Kg		97	70 - 130		
Ethylbenzene	ND		0.953	0.947		mg/Kg		99	70 - 130		
m,p-Xylene	ND		1.91	1.90		mg/Kg		100	70 - 130		
o-Xylene	ND		0.953	0.952		mg/Kg		100	70 - 130		
Toluene	ND		0.953	0.938		mg/Kg		98	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*

Lab Sample ID: 885-7606-2 MSD
Matrix: Solid
Analysis Batch: 8329

Client Sample ID: BH24-01 2'
Prep Type: Total/NA
Prep Batch: 8182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.958	0.920		mg/Kg		96	70 - 130	1	20
Ethylbenzene	ND		0.958	0.936		mg/Kg		98	70 - 130	1	20
m,p-Xylene	ND		1.92	1.87		mg/Kg		98	70 - 130	2	20
o-Xylene	ND		0.958	0.943		mg/Kg		98	70 - 130	1	20
Toluene	ND		0.958	0.920		mg/Kg		96	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

Lab Sample ID: MB 885-8196/1-A
Matrix: Solid
Analysis Batch: 8356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/10/24 16:53	07/11/24 11:20	1
Ethylbenzene	ND		0.050		mg/Kg		07/10/24 16:53	07/11/24 11:20	1
Toluene	ND		0.050		mg/Kg		07/10/24 16:53	07/11/24 11:20	1
Xylenes, Total	ND		0.10		mg/Kg		07/10/24 16:53	07/11/24 11:20	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-8196/1-A
Matrix: Solid
Analysis Batch: 8356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8196

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		48 - 145	07/10/24 16:53	07/11/24 11:20	1

Lab Sample ID: LCS 885-8196/3-A
Matrix: Solid
Analysis Batch: 8356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.933		mg/Kg		93	70 - 130
Ethylbenzene	1.00	0.903		mg/Kg		90	70 - 130
m,p-Xylene	2.00	1.82		mg/Kg		91	70 - 130
o-Xylene	1.00	0.889		mg/Kg		89	70 - 130
Toluene	1.00	0.887		mg/Kg		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		48 - 145

Lab Sample ID: 885-7606-22 MS
Matrix: Solid
Analysis Batch: 8356

Client Sample ID: BH24-08 0'
Prep Type: Total/NA
Prep Batch: 8196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.943	0.989		mg/Kg		105	70 - 130
Ethylbenzene	ND		0.943	0.945		mg/Kg		100	70 - 130
m,p-Xylene	ND		1.89	1.91		mg/Kg		100	70 - 130
o-Xylene	ND		0.943	0.926		mg/Kg		98	70 - 130
Toluene	ND		0.943	0.945		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		48 - 145

Lab Sample ID: 885-7606-22 MSD
Matrix: Solid
Analysis Batch: 8356

Client Sample ID: BH24-08 0'
Prep Type: Total/NA
Prep Batch: 8196

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.947	1.02		mg/Kg		107	70 - 130	3	20
Ethylbenzene	ND		0.947	0.973		mg/Kg		103	70 - 130	3	20
m,p-Xylene	ND		1.89	1.96		mg/Kg		103	70 - 130	3	20
o-Xylene	ND		0.947	0.970		mg/Kg		102	70 - 130	5	20
Toluene	ND		0.947	0.963		mg/Kg		100	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		48 - 145

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8238/1-A
Matrix: Solid
Analysis Batch: 8225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8238

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/11/24 11:50	07/11/24 17:39	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/11/24 11:50	07/11/24 17:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*07/11/24 11:50*	*07/11/24 17:39*	*1*

Lab Sample ID: LCS 885-8238/2-A
Matrix: Solid
Analysis Batch: 8225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8238

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	48.6		mg/Kg		97	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*

Lab Sample ID: 885-7606-20 MS
Matrix: Solid
Analysis Batch: 8225

Client Sample ID: BH24-07 2'
Prep Type: Total/NA
Prep Batch: 8238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		49.7	46.9		mg/Kg		94	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*

Lab Sample ID: 885-7606-20 MSD
Matrix: Solid
Analysis Batch: 8225

Client Sample ID: BH24-07 2'
Prep Type: Total/NA
Prep Batch: 8238

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.1	44.3		mg/Kg		90	44 - 136	6	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*

Lab Sample ID: MB 885-8278/1-A
Matrix: Solid
Analysis Batch: 8331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8278

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/11/24 16:20	07/12/24 16:21	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/11/24 16:20	07/12/24 16:21	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-8278/1-A
Matrix: Solid
Analysis Batch: 8331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8278

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*112*		*62 - 134*	*07/11/24 16:20*	*07/12/24 16:21*	*1*

Lab Sample ID: LCS 885-8278/2-A
Matrix: Solid
Analysis Batch: 8331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8278

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	59.5		mg/Kg		119	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-8293/2-A
Matrix: Solid
Analysis Batch: 8374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8293

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		07/12/24 07:01	07/12/24 07:44	1

Lab Sample ID: LCS 885-8293/3-A
Matrix: Solid
Analysis Batch: 8374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	31.1		mg/Kg		104	90 - 110

Lab Sample ID: MB 885-8311/1-A
Matrix: Solid
Analysis Batch: 8323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8311

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		07/12/24 09:09	07/12/24 11:05	1

Lab Sample ID: LCS 885-8311/2-A
Matrix: Solid
Analysis Batch: 8323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	28.1		mg/Kg		94	90 - 110

Lab Sample ID: 885-7606-15 MS
Matrix: Solid
Analysis Batch: 8323

Client Sample ID: BH24-05 4'
Prep Type: Total/NA
Prep Batch: 8311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	66		29.9	91.2		mg/Kg		85	50 - 150

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-7606-15 MSD
Matrix: Solid
Analysis Batch: 8323

Client Sample ID: BH24-05 4'
Prep Type: Total/NA
Prep Batch: 8311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	66		30.0	89.2		mg/Kg		78	50 - 150	2	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

GC VOA

Prep Batch: 8182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-1	BH24-01 0'	Total/NA	Solid	5030C	
885-7606-2	BH24-01 2'	Total/NA	Solid	5030C	
885-7606-3	BH24-01 4'	Total/NA	Solid	5030C	
885-7606-4	BH24-02 0'	Total/NA	Solid	5030C	
885-7606-5	BH24-02 2'	Total/NA	Solid	5030C	
885-7606-6	BH24-02 4'	Total/NA	Solid	5030C	
885-7606-7	BH24-03 0'	Total/NA	Solid	5030C	
885-7606-8	BH24-03 2'	Total/NA	Solid	5030C	
885-7606-9	BH24-03 4'	Total/NA	Solid	5030C	
885-7606-10	BH24-04 0'	Total/NA	Solid	5030C	
885-7606-11	BH24-04 2'	Total/NA	Solid	5030C	
885-7606-12	BH24-04 4'	Total/NA	Solid	5030C	
885-7606-13	BH24-05 0'	Total/NA	Solid	5030C	
885-7606-14	BH24-05 2'	Total/NA	Solid	5030C	
885-7606-15	BH24-05 4'	Total/NA	Solid	5030C	
885-7606-16	BH24-06 0'	Total/NA	Solid	5030C	
885-7606-17	BH24-06 2'	Total/NA	Solid	5030C	
885-7606-18	BH24-06 4'	Total/NA	Solid	5030C	
885-7606-19	BH24-07 0'	Total/NA	Solid	5030C	
885-7606-20	BH24-07 2'	Total/NA	Solid	5030C	
MB 885-8182/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8182/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8182/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-7606-1 MS	BH24-01 0'	Total/NA	Solid	5030C	
885-7606-1 MSD	BH24-01 0'	Total/NA	Solid	5030C	
885-7606-2 MS	BH24-01 2'	Total/NA	Solid	5030C	
885-7606-2 MSD	BH24-01 2'	Total/NA	Solid	5030C	

Prep Batch: 8196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-21	BH24-07 4'	Total/NA	Solid	5030C	
885-7606-22	BH24-08 0'	Total/NA	Solid	5030C	
885-7606-23	BH24-08 2'	Total/NA	Solid	5030C	
885-7606-24	BH24-08 4'	Total/NA	Solid	5030C	
MB 885-8196/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8196/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8196/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-7606-21 MS	BH24-07 4'	Total/NA	Solid	5030C	
885-7606-21 MSD	BH24-07 4'	Total/NA	Solid	5030C	
885-7606-22 MS	BH24-08 0'	Total/NA	Solid	5030C	
885-7606-22 MSD	BH24-08 0'	Total/NA	Solid	5030C	

Analysis Batch: 8328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-1	BH24-01 0'	Total/NA	Solid	8015M/D	8182
885-7606-2	BH24-01 2'	Total/NA	Solid	8015M/D	8182
885-7606-3	BH24-01 4'	Total/NA	Solid	8015M/D	8182
885-7606-4	BH24-02 0'	Total/NA	Solid	8015M/D	8182
885-7606-5	BH24-02 2'	Total/NA	Solid	8015M/D	8182
885-7606-6	BH24-02 4'	Total/NA	Solid	8015M/D	8182
885-7606-7	BH24-03 0'	Total/NA	Solid	8015M/D	8182

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

GC VOA (Continued)

Analysis Batch: 8328 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-8	BH24-03 2'	Total/NA	Solid	8015M/D	8182
885-7606-9	BH24-03 4'	Total/NA	Solid	8015M/D	8182
885-7606-10	BH24-04 0'	Total/NA	Solid	8015M/D	8182
885-7606-11	BH24-04 2'	Total/NA	Solid	8015M/D	8182
885-7606-12	BH24-04 4'	Total/NA	Solid	8015M/D	8182
885-7606-13	BH24-05 0'	Total/NA	Solid	8015M/D	8182
885-7606-14	BH24-05 2'	Total/NA	Solid	8015M/D	8182
885-7606-15	BH24-05 4'	Total/NA	Solid	8015M/D	8182
885-7606-16	BH24-06 0'	Total/NA	Solid	8015M/D	8182
885-7606-17	BH24-06 2'	Total/NA	Solid	8015M/D	8182
885-7606-18	BH24-06 4'	Total/NA	Solid	8015M/D	8182
885-7606-19	BH24-07 0'	Total/NA	Solid	8015M/D	8182
885-7606-20	BH24-07 2'	Total/NA	Solid	8015M/D	8182
MB 885-8182/1-A	Method Blank	Total/NA	Solid	8015M/D	8182
LCS 885-8182/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8182
885-7606-1 MS	BH24-01 0'	Total/NA	Solid	8015M/D	8182
885-7606-1 MSD	BH24-01 0'	Total/NA	Solid	8015M/D	8182

Analysis Batch: 8329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-1	BH24-01 0'	Total/NA	Solid	8021B	8182
885-7606-2	BH24-01 2'	Total/NA	Solid	8021B	8182
885-7606-3	BH24-01 4'	Total/NA	Solid	8021B	8182
885-7606-4	BH24-02 0'	Total/NA	Solid	8021B	8182
885-7606-5	BH24-02 2'	Total/NA	Solid	8021B	8182
885-7606-6	BH24-02 4'	Total/NA	Solid	8021B	8182
885-7606-7	BH24-03 0'	Total/NA	Solid	8021B	8182
885-7606-8	BH24-03 2'	Total/NA	Solid	8021B	8182
885-7606-9	BH24-03 4'	Total/NA	Solid	8021B	8182
885-7606-10	BH24-04 0'	Total/NA	Solid	8021B	8182
885-7606-11	BH24-04 2'	Total/NA	Solid	8021B	8182
885-7606-12	BH24-04 4'	Total/NA	Solid	8021B	8182
885-7606-13	BH24-05 0'	Total/NA	Solid	8021B	8182
885-7606-14	BH24-05 2'	Total/NA	Solid	8021B	8182
885-7606-15	BH24-05 4'	Total/NA	Solid	8021B	8182
885-7606-16	BH24-06 0'	Total/NA	Solid	8021B	8182
885-7606-17	BH24-06 2'	Total/NA	Solid	8021B	8182
885-7606-18	BH24-06 4'	Total/NA	Solid	8021B	8182
885-7606-19	BH24-07 0'	Total/NA	Solid	8021B	8182
885-7606-20	BH24-07 2'	Total/NA	Solid	8021B	8182
MB 885-8182/1-A	Method Blank	Total/NA	Solid	8021B	8182
LCS 885-8182/3-A	Lab Control Sample	Total/NA	Solid	8021B	8182
885-7606-2 MS	BH24-01 2'	Total/NA	Solid	8021B	8182
885-7606-2 MSD	BH24-01 2'	Total/NA	Solid	8021B	8182

Analysis Batch: 8355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-21	BH24-07 4'	Total/NA	Solid	8015M/D	8196
885-7606-22	BH24-08 0'	Total/NA	Solid	8015M/D	8196
885-7606-23	BH24-08 2'	Total/NA	Solid	8015M/D	8196
885-7606-24	BH24-08 4'	Total/NA	Solid	8015M/D	8196

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

GC VOA (Continued)

Analysis Batch: 8355 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-8196/1-A	Method Blank	Total/NA	Solid	8015M/D	8196
LCS 885-8196/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8196
885-7606-21 MS	BH24-07 4'	Total/NA	Solid	8015M/D	8196
885-7606-21 MSD	BH24-07 4'	Total/NA	Solid	8015M/D	8196

Analysis Batch: 8356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-21	BH24-07 4'	Total/NA	Solid	8021B	8196
885-7606-22	BH24-08 0'	Total/NA	Solid	8021B	8196
885-7606-23	BH24-08 2'	Total/NA	Solid	8021B	8196
885-7606-24	BH24-08 4'	Total/NA	Solid	8021B	8196
MB 885-8196/1-A	Method Blank	Total/NA	Solid	8021B	8196
LCS 885-8196/3-A	Lab Control Sample	Total/NA	Solid	8021B	8196
885-7606-22 MS	BH24-08 0'	Total/NA	Solid	8021B	8196
885-7606-22 MSD	BH24-08 0'	Total/NA	Solid	8021B	8196

GC Semi VOA

Analysis Batch: 8225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-1	BH24-01 0'	Total/NA	Solid	8015M/D	8238
885-7606-2	BH24-01 2'	Total/NA	Solid	8015M/D	8238
885-7606-3	BH24-01 4'	Total/NA	Solid	8015M/D	8238
885-7606-4	BH24-02 0'	Total/NA	Solid	8015M/D	8238
885-7606-5	BH24-02 2'	Total/NA	Solid	8015M/D	8238
885-7606-6	BH24-02 4'	Total/NA	Solid	8015M/D	8238
885-7606-7	BH24-03 0'	Total/NA	Solid	8015M/D	8238
885-7606-8	BH24-03 2'	Total/NA	Solid	8015M/D	8238
885-7606-9	BH24-03 4'	Total/NA	Solid	8015M/D	8238
885-7606-10	BH24-04 0'	Total/NA	Solid	8015M/D	8238
885-7606-11	BH24-04 2'	Total/NA	Solid	8015M/D	8238
885-7606-12	BH24-04 4'	Total/NA	Solid	8015M/D	8238
885-7606-13	BH24-05 0'	Total/NA	Solid	8015M/D	8238
885-7606-14	BH24-05 2'	Total/NA	Solid	8015M/D	8238
885-7606-15	BH24-05 4'	Total/NA	Solid	8015M/D	8238
885-7606-16	BH24-06 0'	Total/NA	Solid	8015M/D	8238
885-7606-17	BH24-06 2'	Total/NA	Solid	8015M/D	8238
885-7606-18	BH24-06 4'	Total/NA	Solid	8015M/D	8238
885-7606-19	BH24-07 0'	Total/NA	Solid	8015M/D	8238
885-7606-20	BH24-07 2'	Total/NA	Solid	8015M/D	8238
MB 885-8238/1-A	Method Blank	Total/NA	Solid	8015M/D	8238
LCS 885-8238/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8238
885-7606-20 MS	BH24-07 2'	Total/NA	Solid	8015M/D	8238
885-7606-20 MSD	BH24-07 2'	Total/NA	Solid	8015M/D	8238

Prep Batch: 8238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-1	BH24-01 0'	Total/NA	Solid	SHAKE	
885-7606-2	BH24-01 2'	Total/NA	Solid	SHAKE	
885-7606-3	BH24-01 4'	Total/NA	Solid	SHAKE	
885-7606-4	BH24-02 0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

GC Semi VOA (Continued)

Prep Batch: 8238 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-5	BH24-02 2'	Total/NA	Solid	SHAKE	
885-7606-6	BH24-02 4'	Total/NA	Solid	SHAKE	
885-7606-7	BH24-03 0'	Total/NA	Solid	SHAKE	
885-7606-8	BH24-03 2'	Total/NA	Solid	SHAKE	
885-7606-9	BH24-03 4'	Total/NA	Solid	SHAKE	
885-7606-10	BH24-04 0'	Total/NA	Solid	SHAKE	
885-7606-11	BH24-04 2'	Total/NA	Solid	SHAKE	
885-7606-12	BH24-04 4'	Total/NA	Solid	SHAKE	
885-7606-13	BH24-05 0'	Total/NA	Solid	SHAKE	
885-7606-14	BH24-05 2'	Total/NA	Solid	SHAKE	
885-7606-15	BH24-05 4'	Total/NA	Solid	SHAKE	
885-7606-16	BH24-06 0'	Total/NA	Solid	SHAKE	
885-7606-17	BH24-06 2'	Total/NA	Solid	SHAKE	
885-7606-18	BH24-06 4'	Total/NA	Solid	SHAKE	
885-7606-19	BH24-07 0'	Total/NA	Solid	SHAKE	
885-7606-20	BH24-07 2'	Total/NA	Solid	SHAKE	
MB 885-8238/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8238/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-7606-20 MS	BH24-07 2'	Total/NA	Solid	SHAKE	
885-7606-20 MSD	BH24-07 2'	Total/NA	Solid	SHAKE	

Prep Batch: 8278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-21	BH24-07 4'	Total/NA	Solid	SHAKE	
885-7606-22	BH24-08 0'	Total/NA	Solid	SHAKE	
885-7606-23	BH24-08 2'	Total/NA	Solid	SHAKE	
885-7606-24	BH24-08 4'	Total/NA	Solid	SHAKE	
MB 885-8278/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8278/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 8331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-21	BH24-07 4'	Total/NA	Solid	8015M/D	8278
885-7606-22	BH24-08 0'	Total/NA	Solid	8015M/D	8278
885-7606-23	BH24-08 2'	Total/NA	Solid	8015M/D	8278
885-7606-24	BH24-08 4'	Total/NA	Solid	8015M/D	8278
MB 885-8278/1-A	Method Blank	Total/NA	Solid	8015M/D	8278
LCS 885-8278/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8278

HPLC/IC

Prep Batch: 8293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-1	BH24-01 0'	Total/NA	Solid	300_Prep	
885-7606-2	BH24-01 2'	Total/NA	Solid	300_Prep	
885-7606-3	BH24-01 4'	Total/NA	Solid	300_Prep	
885-7606-4	BH24-02 0'	Total/NA	Solid	300_Prep	
885-7606-5	BH24-02 2'	Total/NA	Solid	300_Prep	
885-7606-6	BH24-02 4'	Total/NA	Solid	300_Prep	
885-7606-7	BH24-03 0'	Total/NA	Solid	300_Prep	
885-7606-8	BH24-03 2'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

HPLC/IC (Continued)

Prep Batch: 8293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-9	BH24-03 4'	Total/NA	Solid	300_Prep	
885-7606-10	BH24-04 0'	Total/NA	Solid	300_Prep	
885-7606-11	BH24-04 2'	Total/NA	Solid	300_Prep	
885-7606-12	BH24-04 4'	Total/NA	Solid	300_Prep	
885-7606-13	BH24-05 0'	Total/NA	Solid	300_Prep	
885-7606-14	BH24-05 2'	Total/NA	Solid	300_Prep	
MB 885-8293/2-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8293/3-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 8311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-15	BH24-05 4'	Total/NA	Solid	300_Prep	
885-7606-16	BH24-06 0'	Total/NA	Solid	300_Prep	
885-7606-17	BH24-06 2'	Total/NA	Solid	300_Prep	
885-7606-18	BH24-06 4'	Total/NA	Solid	300_Prep	
885-7606-19	BH24-07 0'	Total/NA	Solid	300_Prep	
885-7606-20	BH24-07 2'	Total/NA	Solid	300_Prep	
885-7606-21	BH24-07 4'	Total/NA	Solid	300_Prep	
885-7606-22	BH24-08 0'	Total/NA	Solid	300_Prep	
885-7606-23	BH24-08 2'	Total/NA	Solid	300_Prep	
885-7606-24	BH24-08 4'	Total/NA	Solid	300_Prep	
MB 885-8311/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8311/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-7606-15 MS	BH24-05 4'	Total/NA	Solid	300_Prep	
885-7606-15 MSD	BH24-05 4'	Total/NA	Solid	300_Prep	

Analysis Batch: 8323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-15	BH24-05 4'	Total/NA	Solid	300.0	8311
885-7606-16	BH24-06 0'	Total/NA	Solid	300.0	8311
885-7606-17	BH24-06 2'	Total/NA	Solid	300.0	8311
885-7606-18	BH24-06 4'	Total/NA	Solid	300.0	8311
885-7606-19	BH24-07 0'	Total/NA	Solid	300.0	8311
885-7606-20	BH24-07 2'	Total/NA	Solid	300.0	8311
885-7606-21	BH24-07 4'	Total/NA	Solid	300.0	8311
885-7606-22	BH24-08 0'	Total/NA	Solid	300.0	8311
885-7606-23	BH24-08 2'	Total/NA	Solid	300.0	8311
885-7606-24	BH24-08 4'	Total/NA	Solid	300.0	8311
MB 885-8311/1-A	Method Blank	Total/NA	Solid	300.0	8311
LCS 885-8311/2-A	Lab Control Sample	Total/NA	Solid	300.0	8311
885-7606-15 MS	BH24-05 4'	Total/NA	Solid	300.0	8311
885-7606-15 MSD	BH24-05 4'	Total/NA	Solid	300.0	8311

Analysis Batch: 8374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-1	BH24-01 0'	Total/NA	Solid	300.0	8293
885-7606-2	BH24-01 2'	Total/NA	Solid	300.0	8293
885-7606-3	BH24-01 4'	Total/NA	Solid	300.0	8293
885-7606-5	BH24-02 2'	Total/NA	Solid	300.0	8293
885-7606-6	BH24-02 4'	Total/NA	Solid	300.0	8293
885-7606-7	BH24-03 0'	Total/NA	Solid	300.0	8293

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7606-1

HPLC/IC (Continued)

Analysis Batch: 8374 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-8	BH24-03 2'	Total/NA	Solid	300.0	8293
885-7606-9	BH24-03 4'	Total/NA	Solid	300.0	8293
885-7606-10	BH24-04 0'	Total/NA	Solid	300.0	8293
885-7606-11	BH24-04 2'	Total/NA	Solid	300.0	8293
885-7606-12	BH24-04 4'	Total/NA	Solid	300.0	8293
885-7606-13	BH24-05 0'	Total/NA	Solid	300.0	8293
885-7606-14	BH24-05 2'	Total/NA	Solid	300.0	8293
MB 885-8293/2-A	Method Blank	Total/NA	Solid	300.0	8293
LCS 885-8293/3-A	Lab Control Sample	Total/NA	Solid	300.0	8293

Analysis Batch: 8550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7606-4	BH24-02 0'	Total/NA	Solid	300.0	8293

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-01 0'
Lab Sample ID: 885-7606-1
Date Collected: 07/08/24 09:00
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 15:49
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 15:49
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 18:14
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 09:31

Client Sample ID: BH24-01 2'
Lab Sample ID: 885-7606-2
Date Collected: 07/08/24 09:05
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 16:54
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 16:54
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 18:25
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 10:35

Client Sample ID: BH24-01 4'
Lab Sample ID: 885-7606-3
Date Collected: 07/08/24 09:10
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 18:00
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 18:00
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 18:37
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 11:14

Client Sample ID: BH24-02 0'
Lab Sample ID: 885-7606-4
Date Collected: 07/08/24 09:15
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 18:22

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-02 0'
Lab Sample ID: 885-7606-4
Date Collected: 07/08/24 09:15
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 18:22
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 18:48
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		100	8550	JT	EET ALB	07/16/24 18:21

Client Sample ID: BH24-02 2'
Lab Sample ID: 885-7606-5
Date Collected: 07/08/24 09:20
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 18:43
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 18:43
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 19:00
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 11:40

Client Sample ID: BH24-02 4'
Lab Sample ID: 885-7606-6
Date Collected: 07/08/24 09:30
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 19:05
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 19:05
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 19:11
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 11:53

Client Sample ID: BH24-03 0'
Lab Sample ID: 885-7606-7
Date Collected: 07/08/24 10:00
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 19:27
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 19:27

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-03 0'
Lab Sample ID: 885-7606-7
Date Collected: 07/08/24 10:00
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 19:22
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 12:05

Client Sample ID: BH24-03 2'
Lab Sample ID: 885-7606-8
Date Collected: 07/08/24 10:10
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 19:49
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 19:49
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 19:34
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 12:44

Client Sample ID: BH24-03 4'
Lab Sample ID: 885-7606-9
Date Collected: 07/08/24 10:15
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 20:54
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 20:54
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 19:45
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 12:57

Client Sample ID: BH24-04 0'
Lab Sample ID: 885-7606-10
Date Collected: 07/08/24 10:20
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 21:16
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 21:16
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 19:56

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-04 0'
Lab Sample ID: 885-7606-10
Date Collected: 07/08/24 10:20
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 13:10

Client Sample ID: BH24-04 2'
Lab Sample ID: 885-7606-11
Date Collected: 07/08/24 10:25
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 21:38
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 21:38
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 20:18
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 13:23

Client Sample ID: BH24-04 4'
Lab Sample ID: 885-7606-12
Date Collected: 07/08/24 10:30
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 22:00
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 22:00
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 20:30
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 13:35

Client Sample ID: BH24-05 0'
Lab Sample ID: 885-7606-13
Date Collected: 07/08/24 11:00
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 22:22
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 22:22
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 20:41
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 13:48

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-05 2'
Lab Sample ID: 885-7606-14
Date Collected: 07/08/24 11:05
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 22:43
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 22:43
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 20:52
Total/NA	Prep	300_Prep			8293	JT	EET ALB	07/12/24 07:01
Total/NA	Analysis	300.0		20	8374	RC	EET ALB	07/12/24 14:01

Client Sample ID: BH24-05 4'
Lab Sample ID: 885-7606-15
Date Collected: 07/08/24 11:10
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 23:05
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 23:05
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 21:03
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 11:31

Client Sample ID: BH24-06 0'
Lab Sample ID: 885-7606-16
Date Collected: 07/08/24 11:15
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 23:26
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 23:26
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 21:14
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 12:10

Client Sample ID: BH24-06 2'
Lab Sample ID: 885-7606-17
Date Collected: 07/08/24 11:20
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/11/24 23:48

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-06 2'
Lab Sample ID: 885-7606-17
Date Collected: 07/08/24 11:20
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/11/24 23:48
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 21:25
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 12:22

Client Sample ID: BH24-06 4'
Lab Sample ID: 885-7606-18
Date Collected: 07/08/24 11:25
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/12/24 00:10
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/12/24 00:10
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 21:36
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 12:35

Client Sample ID: BH24-07 0'
Lab Sample ID: 885-7606-19
Date Collected: 07/08/24 12:00
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/12/24 00:54
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/12/24 00:54
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 21:48
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 12:48

Client Sample ID: BH24-07 2'
Lab Sample ID: 885-7606-20
Date Collected: 07/08/24 12:05
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8015M/D		1	8328	RA	EET ALB	07/12/24 01:15
Total/NA	Prep	5030C			8182	JP	EET ALB	07/10/24 15:08
Total/NA	Analysis	8021B		1	8329	RA	EET ALB	07/12/24 01:15

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-07 2'
Lab Sample ID: 885-7606-20
Date Collected: 07/08/24 12:05
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8238	KR	EET ALB	07/11/24 11:50
Total/NA	Analysis	8015M/D		1	8225	KR	EET ALB	07/11/24 21:59
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 13:01

Client Sample ID: BH24-07 4'
Lab Sample ID: 885-7606-21
Date Collected: 07/08/24 12:10
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8015M/D		1	8355	JP	EET ALB	07/11/24 11:43
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8021B		1	8356	JP	EET ALB	07/11/24 11:43
Total/NA	Prep	SHAKE			8278	DH	EET ALB	07/11/24 16:20
Total/NA	Analysis	8015M/D		1	8331	KR	EET ALB	07/12/24 16:43
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 13:40

Client Sample ID: BH24-08 0'
Lab Sample ID: 885-7606-22
Date Collected: 07/08/24 12:15
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8015M/D		1	8355	JP	EET ALB	07/11/24 12:54
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8021B		1	8356	JP	EET ALB	07/11/24 12:54
Total/NA	Prep	SHAKE			8278	DH	EET ALB	07/11/24 16:20
Total/NA	Analysis	8015M/D		1	8331	KR	EET ALB	07/12/24 17:08
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 13:53

Client Sample ID: BH24-08 2'
Lab Sample ID: 885-7606-23
Date Collected: 07/08/24 12:20
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8015M/D		1	8355	JP	EET ALB	07/11/24 14:04
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8021B		1	8356	JP	EET ALB	07/11/24 14:04
Total/NA	Prep	SHAKE			8278	DH	EET ALB	07/11/24 16:20
Total/NA	Analysis	8015M/D		1	8331	KR	EET ALB	07/12/24 17:19

Lab Chronicle

Client: Vertex
Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-08 2'
Lab Sample ID: 885-7606-23
Date Collected: 07/08/24 12:20
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 14:05

Client Sample ID: BH24-08 4'
Lab Sample ID: 885-7606-24
Date Collected: 07/08/24 12:25
Matrix: Solid
Date Received: 07/10/24 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8015M/D		1	8355	JP	EET ALB	07/11/24 14:28
Total/NA	Prep	5030C			8196	JP	EET ALB	07/10/24 16:53
Total/NA	Analysis	8021B		1	8356	JP	EET ALB	07/11/24 14:28
Total/NA	Prep	SHAKE			8278	DH	EET ALB	07/11/24 16:20
Total/NA	Analysis	8015M/D		1	8331	KR	EET ALB	07/12/24 17:30
Total/NA	Prep	300_Prep			8311	EH	EET ALB	07/12/24 09:09
Total/NA	Analysis	300.0		20	8323	RC	EET ALB	07/12/24 14:18

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-7606-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 Day

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 3.7 +0.1 = 3.8°C

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-7606 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.8.24	9:00	Soil	BH24-01 0'	4oz Jar	ICE	1	x	x					x			
7.8.24	9:05	Soil	BH24-01 2'	4oz Jar	ICE	2	x	x					x			
7.8.24	9:10	Soil	BH24-01 4'	4oz Jar	ICE	3	x	x					x			
7.8.24	9:15	Soil	BH24-02 0'	4oz Jar	ICE	4	x	x					x			
7.8.24	9:20	Soil	BH24-02 2'	4oz Jar	ICE	5	x	x					x			
7.8.24	9:30	Soil	BH24-02 4'	4oz Jar	ICE	6	x	x					x			
7.8.24	10:00	Soil	BH24-03 0'	4oz Jar	ICE	7	x	x					x			
7.8.24	10:10	Soil	BH24-03 2'	4oz Jar	ICE	8	x	x					x			
7.8.24	10:15	Soil	BH24-03 4'	4oz Jar	ICE	9	x	x					x			
7.8.24	10:20	Soil	BH24-04 0'	4oz Jar	ICE	10	x	x					x			
7.8.24	10:25	Soil	BH24-04 2'	4oz Jar	ICE	11	x	x					x			
7.8.24	10:30	Soil	BH24-04 4'	4oz Jar	ICE	12	x	x					x			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
					7/9/24	930
7/9/24	1910			courier	7.10.24	8:30

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush 5 Day

Project Name:

Dawson Creek State #2

Project #:

24E-03166

Project Manager:

Sally Carttar

Scarttar@vertexresource.com

Sampler: J. Rewis

On Ice: ☑ Yes ☐ No

# of Coolers: 1 (log)

Cooler Temp(including CF): 3.7 + 0.1 = 3.8°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.8.24	11:00	Soil	BH24-05 0'	4oz Jar	ICE	13	x	x					x			
7.8.24	11:05	Soil	BH24-05 2' per client	4oz Jar	ICE	14	x	x					x			
7.8.24	11:10	Soil	BH24-05 4' per client	4oz Jar	ICE	15	x	x					x			
7.8.24	11:15	Soil	BH24-06 0'	4oz Jar	ICE	16	x	x					x			
7.8.24	11:20	Soil	BH24-06 2'	4oz Jar	ICE	17	x	x					x			
7.8.24	11:25	Soil	BH24-06 4'	4oz Jar	ICE	18	x	x					x			
7.8.24	12:00	Soil	BH24-07 0'	4oz Jar	ICE	19	x	x					x			
7.8.24	12:05	Soil	BH24-07 2'	4oz Jar	ICE	20	x	x					x			
7.8.24	12:10	Soil	BH24-07 4'	4oz Jar	ICE	21	x	x					x			
7.8.24	12:15	Soil	BH24-08 0'	4oz Jar	ICE	22	x	x					x			
7.8.24	12:20	Soil	BH24-08 2'	4oz Jar	ICE	23	x	x					x			
7.8.24	12:25	Soil	BH24-08 4'	4oz Jar	ICE	24	x	x					x			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/9/24	930
Date: 7/9/24	Time: 1900	Relinquished by:	Received by:	Via: Courier	Date 7-10-24	Time 8:30

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-7606-1

Login Number: 7606 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/26/2024 12:40:30 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-7876-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/26/2024 12:40:30 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-7876-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 16
QC Association Summary 20
Lab Chronicle 23
Certification Summary 27
Chain of Custody 28
Receipt Checklists 29

Definitions/Glossary

Client: Vertex Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-7876-1
Project: Dawson Creek State #2

Job ID: 885-7876-1 Eurofins Albuquerque

Job Narrative
885-7876-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/12/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-02 6'
Lab Sample ID: 885-7876-1
Date Collected: 07/09/24 09:45
Matrix: Solid
Date Received: 07/12/24 09:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/12/24 16:35	07/15/24 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/12/24 16:35*	*07/15/24 12:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/12/24 16:35	07/15/24 12:00	1
Ethylbenzene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 12:00	1
Toluene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 12:00	1
Xylenes, Total	ND		0.098		mg/Kg		07/12/24 16:35	07/15/24 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/12/24 16:35*	*07/15/24 12:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/15/24 11:57	07/16/24 03:21	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/15/24 11:57	07/16/24 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*07/15/24 11:57*	*07/16/24 03:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/16/24 21:55	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-09 0'

Date Collected: 07/09/24 10:00
Date Received: 07/12/24 09:20

Lab Sample ID: 885-7876-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/12/24 16:35	07/15/24 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/12/24 16:35*	*07/15/24 13:11*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/12/24 16:35	07/15/24 13:11	1
Ethylbenzene	ND		0.048		mg/Kg		07/12/24 16:35	07/15/24 13:11	1
Toluene	ND		0.048		mg/Kg		07/12/24 16:35	07/15/24 13:11	1
Xylenes, Total	ND		0.097		mg/Kg		07/12/24 16:35	07/15/24 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/12/24 16:35*	*07/15/24 13:11*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/15/24 11:57	07/16/24 03:32	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/15/24 11:57	07/16/24 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/15/24 11:57*	*07/16/24 03:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/16/24 22:32	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-09 2'

Date Collected: 07/09/24 10:05
Date Received: 07/12/24 09:20

Lab Sample ID: 885-7876-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/12/24 16:35	07/15/24 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/12/24 16:35*	*07/15/24 14:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/12/24 16:35	07/15/24 14:23	1
Ethylbenzene	ND		0.047		mg/Kg		07/12/24 16:35	07/15/24 14:23	1
Toluene	ND		0.047		mg/Kg		07/12/24 16:35	07/15/24 14:23	1
Xylenes, Total	ND		0.094		mg/Kg		07/12/24 16:35	07/15/24 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/12/24 16:35*	*07/15/24 14:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/15/24 11:57	07/16/24 03:43	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/15/24 11:57	07/16/24 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*07/15/24 11:57*	*07/16/24 03:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/16/24 22:45	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-09 4'

Date Collected: 07/09/24 10:10
Date Received: 07/12/24 09:20

Lab Sample ID: 885-7876-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/12/24 16:35	07/15/24 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/12/24 16:35*	*07/15/24 14:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/12/24 16:35	07/15/24 14:46	1
Ethylbenzene	ND		0.047		mg/Kg		07/12/24 16:35	07/15/24 14:46	1
Toluene	ND		0.047		mg/Kg		07/12/24 16:35	07/15/24 14:46	1
Xylenes, Total	ND		0.095		mg/Kg		07/12/24 16:35	07/15/24 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/12/24 16:35*	*07/15/24 14:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/15/24 11:57	07/16/24 03:54	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/15/24 11:57	07/16/24 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*07/15/24 11:57*	*07/16/24 03:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/16/24 22:57	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-10 0'

Date Collected: 07/09/24 10:15
Date Received: 07/12/24 09:20

Lab Sample ID: 885-7876-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/12/24 16:35	07/15/24 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/12/24 16:35*	*07/15/24 15:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/12/24 16:35	07/15/24 15:10	1
Ethylbenzene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 15:10	1
Toluene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 15:10	1
Xylenes, Total	ND		0.099		mg/Kg		07/12/24 16:35	07/15/24 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/12/24 16:35*	*07/15/24 15:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/15/24 11:57	07/16/24 04:05	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/15/24 11:57	07/16/24 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*07/15/24 11:57*	*07/16/24 04:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/16/24 23:09	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-10 2'

Date Collected: 07/09/24 10:20
Date Received: 07/12/24 09:20

Lab Sample ID: 885-7876-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/12/24 16:35	07/15/24 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/12/24 16:35*	*07/15/24 15:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/12/24 16:35	07/15/24 15:34	1
Ethylbenzene	ND		0.048		mg/Kg		07/12/24 16:35	07/15/24 15:34	1
Toluene	ND		0.048		mg/Kg		07/12/24 16:35	07/15/24 15:34	1
Xylenes, Total	ND		0.097		mg/Kg		07/12/24 16:35	07/15/24 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*07/12/24 16:35*	*07/15/24 15:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/15/24 11:57	07/16/24 04:16	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/15/24 11:57	07/16/24 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*	*07/15/24 11:57*	*07/16/24 04:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/16/24 23:22	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-10 4'

Date Collected: 07/09/24 10:25
Date Received: 07/12/24 09:20

Lab Sample ID: 885-7876-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/12/24 16:35	07/15/24 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*07/12/24 16:35*	*07/15/24 15:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/12/24 16:35	07/15/24 15:58	1
Ethylbenzene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 15:58	1
Toluene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 15:58	1
Xylenes, Total	ND		0.099		mg/Kg		07/12/24 16:35	07/15/24 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/12/24 16:35*	*07/15/24 15:58*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/15/24 11:57	07/16/24 04:27	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/15/24 11:57	07/16/24 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*86*		*62 - 134*	*07/15/24 11:57*	*07/16/24 04:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/16/24 23:59	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-11 0'

Date Collected: 07/09/24 11:00
Date Received: 07/12/24 09:20

Lab Sample ID: 885-7876-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/12/24 16:35	07/15/24 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*07/12/24 16:35*	*07/15/24 16:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/12/24 16:35	07/15/24 16:22	1
Ethylbenzene	ND		0.047		mg/Kg		07/12/24 16:35	07/15/24 16:22	1
Toluene	ND		0.047		mg/Kg		07/12/24 16:35	07/15/24 16:22	1
Xylenes, Total	ND		0.094		mg/Kg		07/12/24 16:35	07/15/24 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/12/24 16:35*	*07/15/24 16:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/15/24 11:57	07/16/24 04:38	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/15/24 11:57	07/16/24 04:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*07/15/24 11:57*	*07/16/24 04:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 14:37	07/17/24 00:11	20

Client Sample Results

Client: Vertex
Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-11 2'
Lab Sample ID: 885-7876-9
Date Collected: 07/09/24 11:10
Matrix: Solid
Date Received: 07/12/24 09:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/12/24 16:35	07/15/24 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*07/12/24 16:35*	*07/15/24 16:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/12/24 16:35	07/15/24 16:46	1
Ethylbenzene	ND		0.050		mg/Kg		07/12/24 16:35	07/15/24 16:46	1
Toluene	ND		0.050		mg/Kg		07/12/24 16:35	07/15/24 16:46	1
Xylenes, Total	ND		0.10		mg/Kg		07/12/24 16:35	07/15/24 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/12/24 16:35*	*07/15/24 16:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/15/24 11:57	07/16/24 04:49	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/15/24 11:57	07/16/24 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/15/24 11:57*	*07/16/24 04:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 17:14	07/16/24 19:07	20

Client Sample Results

Client: Vertex
Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-11 4'
Lab Sample ID: 885-7876-10
Date Collected: 07/09/24 11:20
Matrix: Solid
Date Received: 07/12/24 09:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/12/24 16:35	07/15/24 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*07/12/24 16:35*	*07/15/24 17:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/12/24 16:35	07/15/24 17:09	1
Ethylbenzene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 17:09	1
Toluene	ND		0.049		mg/Kg		07/12/24 16:35	07/15/24 17:09	1
Xylenes, Total	ND		0.098		mg/Kg		07/12/24 16:35	07/15/24 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/12/24 16:35*	*07/15/24 17:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/15/24 11:57	07/16/24 05:00	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/15/24 11:57	07/16/24 05:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*07/15/24 11:57*	*07/16/24 05:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/16/24 17:14	07/16/24 19:22	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8363/1-A
Matrix: Solid
Analysis Batch: 8477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8363

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/12/24 16:35	07/15/24 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/12/24 16:35*	*07/15/24 11:37*	*1*

Lab Sample ID: LCS 885-8363/2-A
Matrix: Solid
Analysis Batch: 8477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8363

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	23.5		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*197*	*S1+*	*35 - 166*

Lab Sample ID: 885-7876-1 MS
Matrix: Solid
Analysis Batch: 8477

Client Sample ID: BH24-02 6'
Prep Type: Total/NA
Prep Batch: 8363

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.4	23.6		mg/Kg		97	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*202*	*S1+*	*35 - 166*

Lab Sample ID: 885-7876-1 MSD
Matrix: Solid
Analysis Batch: 8477

Client Sample ID: BH24-02 6'
Prep Type: Total/NA
Prep Batch: 8363

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.3	22.9		mg/Kg		94	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*207*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8363/1-A
Matrix: Solid
Analysis Batch: 8478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8363

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/12/24 16:35	07/15/24 11:37	1
Ethylbenzene	ND		0.050		mg/Kg		07/12/24 16:35	07/15/24 11:37	1
Toluene	ND		0.050		mg/Kg		07/12/24 16:35	07/15/24 11:37	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-8363/1-A
Matrix: Solid
Analysis Batch: 8478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8363

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		07/12/24 16:35	07/15/24 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/12/24 16:35*	*07/15/24 11:37*	*1*

Lab Sample ID: LCS 885-8363/3-A
Matrix: Solid
Analysis Batch: 8478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8363

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.924		mg/Kg		92	70 - 130		
Ethylbenzene			1.00	0.878		mg/Kg		88	70 - 130		
m,p-Xylene			2.00	1.77		mg/Kg		88	70 - 130		
o-Xylene			1.00	0.866		mg/Kg		87	70 - 130		
Toluene			1.00	0.873		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*

Lab Sample ID: 885-7876-2 MS
Matrix: Solid
Analysis Batch: 8478

Client Sample ID: BH24-09 0'
Prep Type: Total/NA
Prep Batch: 8363

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.961	0.881		mg/Kg		92	70 - 130		
Ethylbenzene	ND		0.961	0.846		mg/Kg		88	70 - 130		
m,p-Xylene	ND		1.92	1.71		mg/Kg		88	70 - 130		
o-Xylene	ND		0.961	0.834		mg/Kg		87	70 - 130		
Toluene	ND		0.961	0.842		mg/Kg		86	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*

Lab Sample ID: 885-7876-2 MSD
Matrix: Solid
Analysis Batch: 8478

Client Sample ID: BH24-09 0'
Prep Type: Total/NA
Prep Batch: 8363

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.964	0.881		mg/Kg		91	70 - 130	0	20
Ethylbenzene	ND		0.964	0.848		mg/Kg		88	70 - 130	0	20
m,p-Xylene	ND		1.93	1.71		mg/Kg		88	70 - 130	0	20
o-Xylene	ND		0.964	0.840		mg/Kg		87	70 - 130	1	20
Toluene	ND		0.964	0.837		mg/Kg		85	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8425/1-A
Matrix: Solid
Analysis Batch: 8410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8425

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/15/24 11:57	07/16/24 00:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/15/24 11:57	07/16/24 00:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*07/15/24 11:57*	*07/16/24 00:53*	*1*

Lab Sample ID: LCS 885-8425/2-A
Matrix: Solid
Analysis Batch: 8410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8425

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	45.1		mg/Kg		90	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*

Lab Sample ID: 885-7876-10 MS
Matrix: Solid
Analysis Batch: 8410

Client Sample ID: BH24-11 4'
Prep Type: Total/NA
Prep Batch: 8425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		49.6	45.9		mg/Kg		93	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*

Lab Sample ID: 885-7876-10 MSD
Matrix: Solid
Analysis Batch: 8410

Client Sample ID: BH24-11 4'
Prep Type: Total/NA
Prep Batch: 8425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		48.9	49.2		mg/Kg		101	44 - 136	7	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-8515/1-A
Matrix: Solid
Analysis Batch: 8551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8515

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/16/24 14:37	07/16/24 17:48	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-8515/2-A
Matrix: Solid
Analysis Batch: 8551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8515

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.2		mg/Kg		97	90 - 110		

Lab Sample ID: 885-7876-1 MS
Matrix: Solid
Analysis Batch: 8551

Client Sample ID: BH24-02 6'
Prep Type: Total/NA
Prep Batch: 8515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		30.1	72.5		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-7876-1 MSD
Matrix: Solid
Analysis Batch: 8551

Client Sample ID: BH24-02 6'
Prep Type: Total/NA
Prep Batch: 8515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		30.1	73.2		mg/Kg		NC	50 - 150	1	20

Lab Sample ID: MB 885-8529/1-A
Matrix: Solid
Analysis Batch: 8550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8529

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/16/24 17:14	07/16/24 18:36	1

Lab Sample ID: LCS 885-8529/2-A
Matrix: Solid
Analysis Batch: 8550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.5		mg/Kg		98	90 - 110		

Lab Sample ID: 885-7876-10 MS
Matrix: Solid
Analysis Batch: 8550

Client Sample ID: BH24-11 4'
Prep Type: Total/NA
Prep Batch: 8529

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		30.2	67.2		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-7876-10 MSD
Matrix: Solid
Analysis Batch: 8550

Client Sample ID: BH24-11 4'
Prep Type: Total/NA
Prep Batch: 8529

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		30.2	67.9		mg/Kg		NC	50 - 150	1	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

GC VOA

Prep Batch: 8363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-1	BH24-02 6'	Total/NA	Solid	5030C	
885-7876-2	BH24-09 0'	Total/NA	Solid	5030C	
885-7876-3	BH24-09 2'	Total/NA	Solid	5030C	
885-7876-4	BH24-09 4'	Total/NA	Solid	5030C	
885-7876-5	BH24-10 0'	Total/NA	Solid	5030C	
885-7876-6	BH24-10 2'	Total/NA	Solid	5030C	
885-7876-7	BH24-10 4'	Total/NA	Solid	5030C	
885-7876-8	BH24-11 0'	Total/NA	Solid	5030C	
885-7876-9	BH24-11 2'	Total/NA	Solid	5030C	
885-7876-10	BH24-11 4'	Total/NA	Solid	5030C	
MB 885-8363/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8363/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8363/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-7876-1 MS	BH24-02 6'	Total/NA	Solid	5030C	
885-7876-1 MSD	BH24-02 6'	Total/NA	Solid	5030C	
885-7876-2 MS	BH24-09 0'	Total/NA	Solid	5030C	
885-7876-2 MSD	BH24-09 0'	Total/NA	Solid	5030C	

Analysis Batch: 8477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-1	BH24-02 6'	Total/NA	Solid	8015M/D	8363
885-7876-2	BH24-09 0'	Total/NA	Solid	8015M/D	8363
885-7876-3	BH24-09 2'	Total/NA	Solid	8015M/D	8363
885-7876-4	BH24-09 4'	Total/NA	Solid	8015M/D	8363
885-7876-5	BH24-10 0'	Total/NA	Solid	8015M/D	8363
885-7876-6	BH24-10 2'	Total/NA	Solid	8015M/D	8363
885-7876-7	BH24-10 4'	Total/NA	Solid	8015M/D	8363
885-7876-8	BH24-11 0'	Total/NA	Solid	8015M/D	8363
885-7876-9	BH24-11 2'	Total/NA	Solid	8015M/D	8363
885-7876-10	BH24-11 4'	Total/NA	Solid	8015M/D	8363
MB 885-8363/1-A	Method Blank	Total/NA	Solid	8015M/D	8363
LCS 885-8363/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8363
885-7876-1 MS	BH24-02 6'	Total/NA	Solid	8015M/D	8363
885-7876-1 MSD	BH24-02 6'	Total/NA	Solid	8015M/D	8363

Analysis Batch: 8478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-1	BH24-02 6'	Total/NA	Solid	8021B	8363
885-7876-2	BH24-09 0'	Total/NA	Solid	8021B	8363
885-7876-3	BH24-09 2'	Total/NA	Solid	8021B	8363
885-7876-4	BH24-09 4'	Total/NA	Solid	8021B	8363
885-7876-5	BH24-10 0'	Total/NA	Solid	8021B	8363
885-7876-6	BH24-10 2'	Total/NA	Solid	8021B	8363
885-7876-7	BH24-10 4'	Total/NA	Solid	8021B	8363
885-7876-8	BH24-11 0'	Total/NA	Solid	8021B	8363
885-7876-9	BH24-11 2'	Total/NA	Solid	8021B	8363
885-7876-10	BH24-11 4'	Total/NA	Solid	8021B	8363
MB 885-8363/1-A	Method Blank	Total/NA	Solid	8021B	8363
LCS 885-8363/3-A	Lab Control Sample	Total/NA	Solid	8021B	8363
885-7876-2 MS	BH24-09 0'	Total/NA	Solid	8021B	8363
885-7876-2 MSD	BH24-09 0'	Total/NA	Solid	8021B	8363

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

GC Semi VOA

Analysis Batch: 8410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-1	BH24-02 6'	Total/NA	Solid	8015M/D	8425
885-7876-2	BH24-09 0'	Total/NA	Solid	8015M/D	8425
885-7876-3	BH24-09 2'	Total/NA	Solid	8015M/D	8425
885-7876-4	BH24-09 4'	Total/NA	Solid	8015M/D	8425
885-7876-5	BH24-10 0'	Total/NA	Solid	8015M/D	8425
885-7876-6	BH24-10 2'	Total/NA	Solid	8015M/D	8425
885-7876-7	BH24-10 4'	Total/NA	Solid	8015M/D	8425
885-7876-8	BH24-11 0'	Total/NA	Solid	8015M/D	8425
885-7876-9	BH24-11 2'	Total/NA	Solid	8015M/D	8425
885-7876-10	BH24-11 4'	Total/NA	Solid	8015M/D	8425
MB 885-8425/1-A	Method Blank	Total/NA	Solid	8015M/D	8425
LCS 885-8425/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8425
885-7876-10 MS	BH24-11 4'	Total/NA	Solid	8015M/D	8425
885-7876-10 MSD	BH24-11 4'	Total/NA	Solid	8015M/D	8425

Prep Batch: 8425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-1	BH24-02 6'	Total/NA	Solid	SHAKE	
885-7876-2	BH24-09 0'	Total/NA	Solid	SHAKE	
885-7876-3	BH24-09 2'	Total/NA	Solid	SHAKE	
885-7876-4	BH24-09 4'	Total/NA	Solid	SHAKE	
885-7876-5	BH24-10 0'	Total/NA	Solid	SHAKE	
885-7876-6	BH24-10 2'	Total/NA	Solid	SHAKE	
885-7876-7	BH24-10 4'	Total/NA	Solid	SHAKE	
885-7876-8	BH24-11 0'	Total/NA	Solid	SHAKE	
885-7876-9	BH24-11 2'	Total/NA	Solid	SHAKE	
885-7876-10	BH24-11 4'	Total/NA	Solid	SHAKE	
MB 885-8425/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8425/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-7876-10 MS	BH24-11 4'	Total/NA	Solid	SHAKE	
885-7876-10 MSD	BH24-11 4'	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 8515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-1	BH24-02 6'	Total/NA	Solid	300_Prep	
885-7876-2	BH24-09 0'	Total/NA	Solid	300_Prep	
885-7876-3	BH24-09 2'	Total/NA	Solid	300_Prep	
885-7876-4	BH24-09 4'	Total/NA	Solid	300_Prep	
885-7876-5	BH24-10 0'	Total/NA	Solid	300_Prep	
885-7876-6	BH24-10 2'	Total/NA	Solid	300_Prep	
885-7876-7	BH24-10 4'	Total/NA	Solid	300_Prep	
885-7876-8	BH24-11 0'	Total/NA	Solid	300_Prep	
MB 885-8515/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8515/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-7876-1 MS	BH24-02 6'	Total/NA	Solid	300_Prep	
885-7876-1 MSD	BH24-02 6'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

HPLC/IC

Prep Batch: 8529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-9	BH24-11 2'	Total/NA	Solid	300_Prep	
885-7876-10	BH24-11 4'	Total/NA	Solid	300_Prep	
MB 885-8529/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8529/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-7876-10 MS	BH24-11 4'	Total/NA	Solid	300_Prep	
885-7876-10 MSD	BH24-11 4'	Total/NA	Solid	300_Prep	

Analysis Batch: 8550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-9	BH24-11 2'	Total/NA	Solid	300.0	8529
885-7876-10	BH24-11 4'	Total/NA	Solid	300.0	8529
MB 885-8529/1-A	Method Blank	Total/NA	Solid	300.0	8529
LCS 885-8529/2-A	Lab Control Sample	Total/NA	Solid	300.0	8529
885-7876-10 MS	BH24-11 4'	Total/NA	Solid	300.0	8529
885-7876-10 MSD	BH24-11 4'	Total/NA	Solid	300.0	8529

Analysis Batch: 8551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7876-1	BH24-02 6'	Total/NA	Solid	300.0	8515
885-7876-2	BH24-09 0'	Total/NA	Solid	300.0	8515
885-7876-3	BH24-09 2'	Total/NA	Solid	300.0	8515
885-7876-4	BH24-09 4'	Total/NA	Solid	300.0	8515
885-7876-5	BH24-10 0'	Total/NA	Solid	300.0	8515
885-7876-6	BH24-10 2'	Total/NA	Solid	300.0	8515
885-7876-7	BH24-10 4'	Total/NA	Solid	300.0	8515
885-7876-8	BH24-11 0'	Total/NA	Solid	300.0	8515
MB 885-8515/1-A	Method Blank	Total/NA	Solid	300.0	8515
LCS 885-8515/2-A	Lab Control Sample	Total/NA	Solid	300.0	8515
885-7876-1 MS	BH24-02 6'	Total/NA	Solid	300.0	8515
885-7876-1 MSD	BH24-02 6'	Total/NA	Solid	300.0	8515

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7876-1

Client Sample ID: BH24-02 6'

Lab Sample ID: 885-7876-1
Matrix: Solid
Date Collected: 07/09/24 09:45
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 12:00
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 12:00
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 03:21
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/16/24 21:55

Client Sample ID: BH24-09 0'

Lab Sample ID: 885-7876-2
Matrix: Solid
Date Collected: 07/09/24 10:00
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 13:11
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 13:11
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 03:32
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/16/24 22:32

Client Sample ID: BH24-09 2'

Lab Sample ID: 885-7876-3
Matrix: Solid
Date Collected: 07/09/24 10:05
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 14:23
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 14:23
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 03:43
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/16/24 22:45

Client Sample ID: BH24-09 4'

Lab Sample ID: 885-7876-4
Matrix: Solid
Date Collected: 07/09/24 10:10
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 14:46

Lab Chronicle

Client: Vertex
Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-09 4'
Lab Sample ID: 885-7876-4
Date Collected: 07/09/24 10:10
Matrix: Solid
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 14:46
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 03:54
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/16/24 22:57

Client Sample ID: BH24-10 0'
Lab Sample ID: 885-7876-5
Date Collected: 07/09/24 10:15
Matrix: Solid
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 15:10
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 15:10
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 04:05
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/16/24 23:09

Client Sample ID: BH24-10 2'
Lab Sample ID: 885-7876-6
Date Collected: 07/09/24 10:20
Matrix: Solid
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 15:34
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 15:34
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 04:16
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/16/24 23:22

Client Sample ID: BH24-10 4'
Lab Sample ID: 885-7876-7
Date Collected: 07/09/24 10:25
Matrix: Solid
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 15:58
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 15:58

Lab Chronicle

Client: Vertex Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-10 4' Lab Sample ID: 885-7876-7

Date Collected: 07/09/24 10:25 **Matrix: Solid**
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 04:27
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/16/24 23:59

Client Sample ID: BH24-11 0' Lab Sample ID: 885-7876-8

Date Collected: 07/09/24 11:00 **Matrix: Solid**
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 16:22
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 16:22
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 04:38
Total/NA	Prep	300_Prep			8515	RC	EET ALB	07/16/24 14:37
Total/NA	Analysis	300.0		20	8551	JT	EET ALB	07/17/24 00:11

Client Sample ID: BH24-11 2' Lab Sample ID: 885-7876-9

Date Collected: 07/09/24 11:10 **Matrix: Solid**
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 16:46
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 16:46
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 04:49
Total/NA	Prep	300_Prep			8529	RC	EET ALB	07/16/24 17:14
Total/NA	Analysis	300.0		20	8550	JT	EET ALB	07/16/24 19:07

Client Sample ID: BH24-11 4' Lab Sample ID: 885-7876-10

Date Collected: 07/09/24 11:20 **Matrix: Solid**
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8015M/D		1	8477	JP	EET ALB	07/15/24 17:09
Total/NA	Prep	5030C			8363	JP	EET ALB	07/12/24 16:35
Total/NA	Analysis	8021B		1	8478	JP	EET ALB	07/15/24 17:09
Total/NA	Prep	SHAKE			8425	KR	EET ALB	07/15/24 11:57
Total/NA	Analysis	8015M/D		1	8410	KR	EET ALB	07/16/24 05:00

Lab Chronicle

Client: Vertex
Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-11 4'
Lab Sample ID: 885-7876-10
Date Collected: 07/09/24 11:20
Matrix: Solid
Date Received: 07/12/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			8529	RC	EET ALB	07/16/24 17:14
Total/NA	Analysis	300.0		20	8550	JT	EET ALB	07/16/24 19:22

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-7876-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 Day

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 5.5+0 = 5.5°C

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-7876 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.9.24	9:45	Soil	BH24-02 6'	4oz Jar	ICE	1	x	x					x			
7.9.24	10:00	Soil	BH24-09 0'	4oz Jar	ICE	2	x	x					x			
7.9.24	10:05	Soil	BH24-09 2'	4oz Jar	ICE	3	x	x					x			
7.9.24	10:10	Soil	BH24-09 4'	4oz Jar	ICE	4	x	x					x			
7.9.24	10:15	Soil	BH24-10 0'	4oz Jar	ICE	5	x	x					x			
7.9.24	10:20	Soil	BH24-10 2'	4oz Jar	ICE	6	x	x					x			
7.9.24	10:25	Soil	BH24-10 4'	4oz Jar	ICE	7	x	x					x			
7.9.24	11:00	Soil	BH24-11 0'	4oz Jar	ICE	8	x	x					x			
7.9.24	11:10	Soil	BH24-11 2'	4oz Jar	ICE	9	x	x					x			
7.9.24	11:20	Soil	BH24-11 4'	4oz Jar	ICE	10	x	x					x			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/11/24	700
7/11/24	1900			courier	7/12/24	9:20

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-7876-1

Login Number: 7876 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/23/2024 12:13:50 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-7927-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/23/2024 12:13:50 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-7927-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 33
QC Association Summary 41
Lab Chronicle 48
Certification Summary 57
Chain of Custody 58
Receipt Checklists 61

Definitions/Glossary

Client: Vertex Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-7927-1
Project: Dawson Creek State #2

Job ID: 885-7927-1 Eurofins Albuquerque

Job Narrative
885-7927-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/13/2024 7:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-12 0'
Lab Sample ID: 885-7927-1
Date Collected: 07/11/24 09:00
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/15/24 14:49	07/16/24 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/15/24 14:49*	*07/16/24 12:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/15/24 14:49	07/16/24 12:36	1
Ethylbenzene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 12:36	1
Toluene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 12:36	1
Xylenes, Total	ND		0.10		mg/Kg		07/15/24 14:49	07/16/24 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/15/24 14:49*	*07/16/24 12:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/17/24 08:26	07/17/24 21:04	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/17/24 08:26	07/17/24 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/17/24 08:26*	*07/17/24 21:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		07/17/24 09:06	07/17/24 11:25	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-12 2'

Date Collected: 07/11/24 09:05
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/15/24 14:49	07/16/24 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/15/24 14:49*	*07/16/24 13:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/15/24 14:49	07/16/24 13:42	1
Ethylbenzene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 13:42	1
Toluene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 13:42	1
Xylenes, Total	ND		0.099		mg/Kg		07/15/24 14:49	07/16/24 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/15/24 14:49*	*07/16/24 13:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/17/24 08:26	07/17/24 21:17	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/17/24 08:26	07/17/24 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/17/24 08:26*	*07/17/24 21:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/17/24 09:06	07/17/24 11:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-12 4'

Date Collected: 07/11/24 09:10
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/15/24 14:49	07/16/24 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/15/24 14:49*	*07/16/24 14:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/15/24 14:49	07/16/24 14:48	1
Ethylbenzene	ND		0.048		mg/Kg		07/15/24 14:49	07/16/24 14:48	1
Toluene	ND		0.048		mg/Kg		07/15/24 14:49	07/16/24 14:48	1
Xylenes, Total	ND		0.096		mg/Kg		07/15/24 14:49	07/16/24 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/15/24 14:49*	*07/16/24 14:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/17/24 08:26	07/17/24 21:30	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/17/24 08:26	07/17/24 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/17/24 08:26*	*07/17/24 21:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**71**		60		mg/Kg		07/17/24 09:06	07/17/24 11:50	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-13 0'

Date Collected: 07/11/24 09:20
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/15/24 14:49	07/16/24 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/15/24 14:49*	*07/16/24 15:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/15/24 14:49	07/16/24 15:10	1
Ethylbenzene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 15:10	1
Toluene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 15:10	1
Xylenes, Total	ND		0.10		mg/Kg		07/15/24 14:49	07/16/24 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/15/24 14:49*	*07/16/24 15:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/17/24 08:26	07/17/24 21:55	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 08:26	07/17/24 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*110*		*62 - 134*	*07/17/24 08:26*	*07/17/24 21:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2600**		150		mg/Kg		07/17/24 10:52	07/18/24 08:43	50

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-13 2'
Lab Sample ID: 885-7927-5
Date Collected: 07/11/24 09:25
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/15/24 14:49	07/16/24 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/15/24 14:49*	*07/16/24 15:32*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/15/24 14:49	07/16/24 15:32	1
Ethylbenzene	ND		0.047		mg/Kg		07/15/24 14:49	07/16/24 15:32	1
Toluene	ND		0.047		mg/Kg		07/15/24 14:49	07/16/24 15:32	1
Xylenes, Total	ND		0.093		mg/Kg		07/15/24 14:49	07/16/24 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/15/24 14:49*	*07/16/24 15:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/17/24 08:26	07/17/24 22:08	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 08:26	07/17/24 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/17/24 08:26*	*07/17/24 22:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1600**		60		mg/Kg		07/17/24 10:52	07/17/24 14:39	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-13 4'

Date Collected: 07/11/24 09:30
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/15/24 14:49	07/16/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/15/24 14:49*	*07/16/24 15:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/15/24 14:49	07/16/24 15:54	1
Ethylbenzene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 15:54	1
Toluene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 15:54	1
Xylenes, Total	ND		0.098		mg/Kg		07/15/24 14:49	07/16/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/15/24 14:49*	*07/16/24 15:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/17/24 08:26	07/17/24 22:21	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 08:26	07/17/24 22:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/17/24 08:26*	*07/17/24 22:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		60		mg/Kg		07/17/24 10:52	07/17/24 14:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-14 0'

Date Collected: 07/11/24 09:40
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/15/24 14:49	07/16/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/15/24 14:49*	*07/16/24 16:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/15/24 14:49	07/16/24 16:16	1
Ethylbenzene	ND		0.047		mg/Kg		07/15/24 14:49	07/16/24 16:16	1
Toluene	ND		0.047		mg/Kg		07/15/24 14:49	07/16/24 16:16	1
Xylenes, Total	ND		0.094		mg/Kg		07/15/24 14:49	07/16/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/15/24 14:49*	*07/16/24 16:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/17/24 08:26	07/17/24 22:34	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/17/24 08:26	07/17/24 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*110*		*62 - 134*	*07/17/24 08:26*	*07/17/24 22:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**430**		60		mg/Kg		07/17/24 10:52	07/17/24 15:29	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-14 2'
Lab Sample ID: 885-7927-8
Date Collected: 07/11/24 09:45
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/15/24 14:49	07/16/24 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/15/24 14:49*	*07/16/24 16:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/15/24 14:49	07/16/24 16:38	1
Ethylbenzene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 16:38	1
Toluene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 16:38	1
Xylenes, Total	ND		0.097		mg/Kg		07/15/24 14:49	07/16/24 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/15/24 14:49*	*07/16/24 16:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 08:26	07/17/24 22:46	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 08:26	07/17/24 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*07/17/24 08:26*	*07/17/24 22:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**530**		60		mg/Kg		07/17/24 10:52	07/17/24 16:06	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-14 4'

Date Collected: 07/11/24 09:50
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/15/24 14:49	07/16/24 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/15/24 14:49*	*07/16/24 17:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/15/24 14:49	07/16/24 17:00	1
Ethylbenzene	ND		0.046		mg/Kg		07/15/24 14:49	07/16/24 17:00	1
Toluene	ND		0.046		mg/Kg		07/15/24 14:49	07/16/24 17:00	1
Xylenes, Total	ND		0.093		mg/Kg		07/15/24 14:49	07/16/24 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/15/24 14:49*	*07/16/24 17:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 08:26	07/17/24 22:59	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 08:26	07/17/24 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/17/24 08:26*	*07/17/24 22:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		07/17/24 10:52	07/17/24 16:18	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-15 0'
Lab Sample ID: 885-7927-10
Date Collected: 07/11/24 10:00
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/15/24 14:49	07/16/24 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/15/24 14:49*	*07/16/24 17:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/15/24 14:49	07/16/24 17:22	1
Ethylbenzene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 17:22	1
Toluene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 17:22	1
Xylenes, Total	ND		0.098		mg/Kg		07/15/24 14:49	07/16/24 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*07/15/24 14:49*	*07/16/24 17:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/17/24 08:26	07/17/24 23:12	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/17/24 08:26	07/17/24 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/17/24 08:26*	*07/17/24 23:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**670**		60		mg/Kg		07/17/24 10:52	07/17/24 16:31	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-15 2'
Lab Sample ID: 885-7927-11
Date Collected: 07/11/24 10:05
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/15/24 14:49	07/16/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/15/24 14:49*	*07/16/24 18:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/15/24 14:49	07/16/24 18:06	1
Ethylbenzene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 18:06	1
Toluene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 18:06	1
Xylenes, Total	ND		0.097		mg/Kg		07/15/24 14:49	07/16/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/15/24 14:49*	*07/16/24 18:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/17/24 08:26	07/17/24 23:25	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/17/24 08:26	07/17/24 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/17/24 08:26*	*07/17/24 23:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**330**		60		mg/Kg		07/17/24 10:52	07/17/24 16:43	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-15 4'
Lab Sample ID: 885-7927-12
Date Collected: 07/11/24 10:15
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/15/24 14:49	07/16/24 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/15/24 14:49*	*07/16/24 18:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/15/24 14:49	07/16/24 18:28	1
Ethylbenzene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 18:28	1
Toluene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 18:28	1
Xylenes, Total	ND		0.099		mg/Kg		07/15/24 14:49	07/16/24 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/15/24 14:49*	*07/16/24 18:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 08:26	07/17/24 23:37	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 08:26	07/17/24 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/17/24 08:26*	*07/17/24 23:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**67**		61		mg/Kg		07/17/24 10:52	07/17/24 16:55	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-16 0'

Date Collected: 07/11/24 10:30
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/15/24 14:49	07/16/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/15/24 14:49*	*07/16/24 18:50*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/15/24 14:49	07/16/24 18:50	1
Ethylbenzene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 18:50	1
Toluene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 18:50	1
Xylenes, Total	ND		0.098		mg/Kg		07/15/24 14:49	07/16/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/15/24 14:49*	*07/16/24 18:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/17/24 08:26	07/17/24 23:50	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/17/24 08:26	07/17/24 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*115*		*62 - 134*	*07/17/24 08:26*	*07/17/24 23:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7300**		300		mg/Kg		07/17/24 10:52	07/18/24 08:55	100

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-16 2'

Date Collected: 07/11/24 10:35
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-14

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/15/24 14:49	07/16/24 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*07/15/24 14:49*	*07/16/24 19:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/15/24 14:49	07/16/24 19:12	1
Ethylbenzene	ND		0.047		mg/Kg		07/15/24 14:49	07/16/24 19:12	1
Toluene	ND		0.047		mg/Kg		07/15/24 14:49	07/16/24 19:12	1
Xylenes, Total	ND		0.093		mg/Kg		07/15/24 14:49	07/16/24 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/15/24 14:49*	*07/16/24 19:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 11:38	07/17/24 14:00	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 11:38	07/17/24 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/17/24 11:38*	*07/17/24 14:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**520**		60		mg/Kg		07/17/24 10:52	07/17/24 17:20	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-16 4'
Lab Sample ID: 885-7927-15
Date Collected: 07/11/24 10:40
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/15/24 14:49	07/16/24 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/15/24 14:49*	*07/16/24 19:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/15/24 14:49	07/16/24 19:34	1
Ethylbenzene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 19:34	1
Toluene	ND		0.049		mg/Kg		07/15/24 14:49	07/16/24 19:34	1
Xylenes, Total	ND		0.098		mg/Kg		07/15/24 14:49	07/16/24 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/15/24 14:49*	*07/16/24 19:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/17/24 11:38	07/17/24 14:12	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 11:38	07/17/24 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/17/24 11:38*	*07/17/24 14:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		60		mg/Kg		07/17/24 10:52	07/17/24 17:32	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-17 0'

Date Collected: 07/11/24 10:45
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-16

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/15/24 14:49	07/16/24 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/15/24 14:49*	*07/16/24 19:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/15/24 14:49	07/16/24 19:56	1
Ethylbenzene	ND		0.046		mg/Kg		07/15/24 14:49	07/16/24 19:56	1
Toluene	ND		0.046		mg/Kg		07/15/24 14:49	07/16/24 19:56	1
Xylenes, Total	ND		0.093		mg/Kg		07/15/24 14:49	07/16/24 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/15/24 14:49*	*07/16/24 19:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/17/24 11:38	07/17/24 14:25	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 11:38	07/17/24 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*07/17/24 11:38*	*07/17/24 14:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**400**		60		mg/Kg		07/17/24 10:52	07/17/24 17:45	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-17 2'
Lab Sample ID: 885-7927-17
Date Collected: 07/11/24 10:50
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/15/24 14:49	07/16/24 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/15/24 14:49*	*07/16/24 20:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/15/24 14:49	07/16/24 20:18	1
Ethylbenzene	ND		0.048		mg/Kg		07/15/24 14:49	07/16/24 20:18	1
Toluene	ND		0.048		mg/Kg		07/15/24 14:49	07/16/24 20:18	1
Xylenes, Total	ND		0.097		mg/Kg		07/15/24 14:49	07/16/24 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/15/24 14:49*	*07/16/24 20:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/17/24 11:38	07/17/24 14:38	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/17/24 11:38	07/17/24 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*07/17/24 11:38*	*07/17/24 14:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		60		mg/Kg		07/17/24 10:52	07/17/24 17:57	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-17 4'
Lab Sample ID: 885-7927-18
Date Collected: 07/11/24 10:55
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/16/24 10:33	07/18/24 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/16/24 10:33*	*07/18/24 20:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/16/24 10:33	07/17/24 19:51	1
Ethylbenzene	ND		0.047		mg/Kg		07/16/24 10:33	07/17/24 19:51	1
Toluene	ND		0.047		mg/Kg		07/16/24 10:33	07/17/24 19:51	1
Xylenes, Total	ND		0.094		mg/Kg		07/16/24 10:33	07/17/24 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/16/24 10:33*	*07/17/24 19:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/17/24 11:38	07/17/24 14:51	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/17/24 11:38	07/17/24 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/17/24 11:38*	*07/17/24 14:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/17/24 10:52	07/17/24 18:34	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-18 0'
Lab Sample ID: 885-7927-19

Date Collected: 07/11/24 11:00
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/16/24 10:33	07/18/24 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/16/24 10:33*	*07/18/24 20:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/16/24 10:33	07/17/24 20:13	1
Ethylbenzene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 20:13	1
Toluene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 20:13	1
Xylenes, Total	ND		0.097		mg/Kg		07/16/24 10:33	07/17/24 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/16/24 10:33*	*07/17/24 20:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/17/24 11:38	07/17/24 15:04	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/17/24 11:38	07/17/24 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/17/24 11:38*	*07/17/24 15:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		07/17/24 10:52	07/17/24 18:46	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-18 2'
Lab Sample ID: 885-7927-20
Date Collected: 07/11/24 11:05
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/16/24 10:33	07/18/24 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/16/24 10:33*	*07/18/24 21:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/16/24 10:33	07/17/24 20:35	1
Ethylbenzene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 20:35	1
Toluene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 20:35	1
Xylenes, Total	ND		0.097		mg/Kg		07/16/24 10:33	07/17/24 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/16/24 10:33*	*07/17/24 20:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/17/24 11:38	07/17/24 15:16	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/17/24 11:38	07/17/24 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*07/17/24 11:38*	*07/17/24 15:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**290**		60		mg/Kg		07/17/24 10:52	07/17/24 18:59	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-18 4'
Lab Sample ID: 885-7927-21
Date Collected: 07/11/24 11:10
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/16/24 10:33	07/18/24 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/16/24 10:33*	*07/18/24 21:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/16/24 10:33	07/17/24 20:56	1
Ethylbenzene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 20:56	1
Toluene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 20:56	1
Xylenes, Total	ND		0.099		mg/Kg		07/16/24 10:33	07/17/24 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/16/24 10:33*	*07/17/24 20:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 11:38	07/17/24 15:29	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 11:38	07/17/24 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/17/24 11:38*	*07/17/24 15:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**530**		60		mg/Kg		07/17/24 10:52	07/17/24 19:11	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-19 0'

Date Collected: 07/11/24 12:55
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-22

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/16/24 10:33	07/18/24 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/16/24 10:33*	*07/18/24 22:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/16/24 10:33	07/17/24 21:18	1
Ethylbenzene	ND		0.048		mg/Kg		07/16/24 10:33	07/17/24 21:18	1
Toluene	ND		0.048		mg/Kg		07/16/24 10:33	07/17/24 21:18	1
Xylenes, Total	ND		0.096		mg/Kg		07/16/24 10:33	07/17/24 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/16/24 10:33*	*07/17/24 21:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 11:38	07/17/24 15:42	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 11:38	07/17/24 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/17/24 11:38*	*07/17/24 15:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4500**		150		mg/Kg		07/17/24 10:52	07/18/24 09:07	50

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-19 2'

Date Collected: 07/11/24 13:00
Date Received: 07/13/24 07:10

Lab Sample ID: 885-7927-23

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/16/24 10:33	07/18/24 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/16/24 10:33*	*07/18/24 22:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/16/24 10:33	07/17/24 21:40	1
Ethylbenzene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 21:40	1
Toluene	ND		0.049		mg/Kg		07/16/24 10:33	07/17/24 21:40	1
Xylenes, Total	ND		0.097		mg/Kg		07/16/24 10:33	07/17/24 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/16/24 10:33*	*07/17/24 21:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/17/24 11:38	07/17/24 15:55	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 11:38	07/17/24 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*07/17/24 11:38*	*07/17/24 15:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		07/17/24 10:52	07/17/24 19:36	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-19 4'
Lab Sample ID: 885-7927-24
Date Collected: 07/11/24 13:05
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/16/24 12:17	07/19/24 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/16/24 12:17*	*07/19/24 01:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/16/24 12:17	07/18/24 01:18	1
Ethylbenzene	ND		0.048		mg/Kg		07/16/24 12:17	07/18/24 01:18	1
Toluene	ND		0.048		mg/Kg		07/16/24 12:17	07/18/24 01:18	1
Xylenes, Total	ND		0.096		mg/Kg		07/16/24 12:17	07/18/24 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/16/24 12:17*	*07/18/24 01:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/17/24 11:38	07/17/24 16:21	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/17/24 11:38	07/17/24 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/17/24 11:38*	*07/17/24 16:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		07/17/24 13:50	07/17/24 21:52	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-20 0'
Lab Sample ID: 885-7927-25
Date Collected: 07/11/24 13:10
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/16/24 12:17	07/19/24 02:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/16/24 12:17*	*07/19/24 02:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/16/24 12:17	07/18/24 02:23	1
Ethylbenzene	ND		0.049		mg/Kg		07/16/24 12:17	07/18/24 02:23	1
Toluene	ND		0.049		mg/Kg		07/16/24 12:17	07/18/24 02:23	1
Xylenes, Total	ND		0.097		mg/Kg		07/16/24 12:17	07/18/24 02:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/16/24 12:17*	*07/18/24 02:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/17/24 11:38	07/17/24 16:34	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 11:38	07/17/24 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*07/17/24 11:38*	*07/17/24 16:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/17/24 13:50	07/17/24 22:29	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-20 2'
Lab Sample ID: 885-7927-26
Date Collected: 07/11/24 13:15
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/16/24 12:17	07/19/24 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/16/24 12:17*	*07/19/24 02:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/16/24 12:17	07/18/24 03:28	1
Ethylbenzene	ND		0.049		mg/Kg		07/16/24 12:17	07/18/24 03:28	1
Toluene	ND		0.049		mg/Kg		07/16/24 12:17	07/18/24 03:28	1
Xylenes, Total	ND		0.098		mg/Kg		07/16/24 12:17	07/18/24 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/16/24 12:17*	*07/18/24 03:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 11:38	07/17/24 16:47	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/17/24 11:38	07/17/24 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/17/24 11:38*	*07/17/24 16:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/17/24 13:50	07/17/24 23:30	20

Client Sample Results

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-20 4'
Lab Sample ID: 885-7927-27
Date Collected: 07/11/24 13:20
Matrix: Solid
Date Received: 07/13/24 07:10

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/16/24 12:17	07/19/24 03:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/16/24 12:17*	*07/19/24 03:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/16/24 12:17	07/18/24 03:50	1
Ethylbenzene	ND		0.049		mg/Kg		07/16/24 12:17	07/18/24 03:50	1
Toluene	ND		0.049		mg/Kg		07/16/24 12:17	07/18/24 03:50	1
Xylenes, Total	ND		0.098		mg/Kg		07/16/24 12:17	07/18/24 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/16/24 12:17*	*07/18/24 03:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 11:38	07/17/24 17:00	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 11:38	07/17/24 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*110*		*62 - 134*	*07/17/24 11:38*	*07/17/24 17:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/17/24 13:50	07/17/24 23:43	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8444/1-A
Matrix: Solid
Analysis Batch: 8543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8444

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/15/24 14:49	07/16/24 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/15/24 14:49*	*07/16/24 12:15*	*1*

Lab Sample ID: LCS 885-8444/2-A
Matrix: Solid
Analysis Batch: 8543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8444

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.9		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*200*	*S1+*	*35 - 166*

Lab Sample ID: 885-7927-1 MS
Matrix: Solid
Analysis Batch: 8543

Client Sample ID: BH24-12 0'
Prep Type: Total/NA
Prep Batch: 8444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		25.0	22.7		mg/Kg		91	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*213*	*S1+*	*35 - 166*

Lab Sample ID: 885-7927-1 MSD
Matrix: Solid
Analysis Batch: 8543

Client Sample ID: BH24-12 0'
Prep Type: Total/NA
Prep Batch: 8444

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		25.0	24.2		mg/Kg		97	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*222*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8481/1-A
Matrix: Solid
Analysis Batch: 8768

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8481

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/16/24 10:33	07/18/24 14:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/16/24 10:33*	*07/18/24 14:42*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 885-8481/2-A
Matrix: Solid
Analysis Batch: 8768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8481

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.3		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8499/1-A
Matrix: Solid
Analysis Batch: 8769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8499

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/16/24 12:17	07/19/24 00:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/16/24 12:17*	*07/19/24 00:55*	*1*

Lab Sample ID: LCS 885-8499/2-A
Matrix: Solid
Analysis Batch: 8769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8499

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	23.0		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*203*	*S1+*	*35 - 166*

Lab Sample ID: 885-7927-24 MS
Matrix: Solid
Analysis Batch: 8769

Client Sample ID: BH24-19 4'
Prep Type: Total/NA
Prep Batch: 8499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		23.9	20.3		mg/Kg		85	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*203*	*S1+*	*35 - 166*

Lab Sample ID: 885-7927-24 MSD
Matrix: Solid
Analysis Batch: 8769

Client Sample ID: BH24-19 4'
Prep Type: Total/NA
Prep Batch: 8499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.1	19.2		mg/Kg		80	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*201*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8444/1-A
Matrix: Solid
Analysis Batch: 8544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8444

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/15/24 14:49	07/16/24 12:15	1
Ethylbenzene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 12:15	1
Toluene	ND		0.050		mg/Kg		07/15/24 14:49	07/16/24 12:15	1
Xylenes, Total	ND		0.10		mg/Kg		07/15/24 14:49	07/16/24 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/15/24 14:49*	*07/16/24 12:15*	*1*

Lab Sample ID: LCS 885-8444/3-A
Matrix: Solid
Analysis Batch: 8544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8444

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.855		mg/Kg		85	70 - 130		
Ethylbenzene			1.00	0.870		mg/Kg		87	70 - 130		
m,p-Xylene			2.00	1.73		mg/Kg		87	70 - 130		
o-Xylene			1.00	0.859		mg/Kg		86	70 - 130		
Toluene			1.00	0.856		mg/Kg		86	70 - 130		
Xylenes, Total			3.00	2.59		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

Lab Sample ID: 885-7927-2 MS
Matrix: Solid
Analysis Batch: 8544

Client Sample ID: BH24-12 2'
Prep Type: Total/NA
Prep Batch: 8444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.986	0.923		mg/Kg		94	70 - 130		
Ethylbenzene	ND		0.986	0.967		mg/Kg		98	70 - 130		
m,p-Xylene	ND		1.97	1.93		mg/Kg		98	70 - 130		
o-Xylene	ND		0.986	0.975		mg/Kg		99	70 - 130		
Toluene	ND		0.986	0.932		mg/Kg		95	70 - 130		
Xylenes, Total	ND		2.96	2.91		mg/Kg		98	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: 885-7927-2 MSD
Matrix: Solid
Analysis Batch: 8544

Client Sample ID: BH24-12 2'
Prep Type: Total/NA
Prep Batch: 8444

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.990	0.940		mg/Kg		95	70 - 130	2	20
Ethylbenzene	ND		0.990	0.993		mg/Kg		100	70 - 130	3	20
m,p-Xylene	ND		1.98	1.99		mg/Kg		101	70 - 130	3	20
o-Xylene	ND		0.990	1.00		mg/Kg		101	70 - 130	3	20
Toluene	ND		0.990	0.961		mg/Kg		97	70 - 130	3	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-7927-2 MSD
Matrix: Solid
Analysis Batch: 8544

Client Sample ID: BH24-12 2'
Prep Type: Total/NA
Prep Batch: 8444

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Xylenes, Total	ND		2.97	2.99		mg/Kg		101	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

Lab Sample ID: MB 885-8481/1-A
Matrix: Solid
Analysis Batch: 8677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8481

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/16/24 10:33	07/17/24 12:32	1
Ethylbenzene	ND		0.050		mg/Kg		07/16/24 10:33	07/17/24 12:32	1
Toluene	ND		0.050		mg/Kg		07/16/24 10:33	07/17/24 12:32	1
Xylenes, Total	ND		0.10		mg/Kg		07/16/24 10:33	07/17/24 12:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/16/24 10:33*	*07/17/24 12:32*	*1*

Lab Sample ID: LCS 885-8481/3-A
Matrix: Solid
Analysis Batch: 8677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8481

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.876		mg/Kg		88	70 - 130
Ethylbenzene	1.00	0.890		mg/Kg		89	70 - 130
m,p-Xylene	2.00	1.77		mg/Kg		89	70 - 130
o-Xylene	1.00	0.894		mg/Kg		89	70 - 130
Toluene	1.00	0.872		mg/Kg		87	70 - 130
Xylenes, Total	3.00	2.66		mg/Kg		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*

Lab Sample ID: MB 885-8499/1-A
Matrix: Solid
Analysis Batch: 8678

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8499

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/16/24 12:17	07/18/24 00:56	1
Ethylbenzene	ND		0.050		mg/Kg		07/16/24 12:17	07/18/24 00:56	1
Toluene	ND		0.050		mg/Kg		07/16/24 12:17	07/18/24 00:56	1
Xylenes, Total	ND		0.10		mg/Kg		07/16/24 12:17	07/18/24 00:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/16/24 12:17*	*07/18/24 00:56*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-8499/3-A
Matrix: Solid
Analysis Batch: 8678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8499

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.887		mg/Kg		89	70 - 130		
Ethylbenzene			1.00	0.896		mg/Kg		90	70 - 130		
m,p-Xylene			2.00	1.79		mg/Kg		90	70 - 130		
o-Xylene			1.00	0.902		mg/Kg		90	70 - 130		
Toluene			1.00	0.885		mg/Kg		89	70 - 130		
Xylenes, Total			3.00	2.69		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

Lab Sample ID: 885-7927-25 MS
Matrix: Solid
Analysis Batch: 8678

Client Sample ID: BH24-20 0'
Prep Type: Total/NA
Prep Batch: 8499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.968	0.915		mg/Kg		95	70 - 130		
Ethylbenzene	ND		0.968	0.935		mg/Kg		97	70 - 130		
m,p-Xylene	ND		1.94	1.85		mg/Kg		96	70 - 130		
o-Xylene	ND		0.968	0.933		mg/Kg		96	70 - 130		
Toluene	ND		0.968	0.924		mg/Kg		96	70 - 130		
Xylenes, Total	ND		2.90	2.78		mg/Kg		96	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*

Lab Sample ID: 885-7927-25 MSD
Matrix: Solid
Analysis Batch: 8678

Client Sample ID: BH24-20 0'
Prep Type: Total/NA
Prep Batch: 8499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.977	0.911		mg/Kg		93	70 - 130	1	20
Ethylbenzene	ND		0.977	0.945		mg/Kg		97	70 - 130	1	20
m,p-Xylene	ND		1.95	1.89		mg/Kg		97	70 - 130	2	20
o-Xylene	ND		0.977	0.960		mg/Kg		98	70 - 130	3	20
Toluene	ND		0.977	0.917		mg/Kg		94	70 - 130	1	20
Xylenes, Total	ND		2.93	2.85		mg/Kg		97	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8542/1-A
Matrix: Solid
Analysis Batch: 8554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8542

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/17/24 08:26	07/17/24 19:08	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-8542/1-A
Matrix: Solid
Analysis Batch: 8554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8542

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 08:26	07/17/24 19:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/17/24 08:26*	*07/17/24 19:08*	*1*

Lab Sample ID: LCS 885-8542/2-A
Matrix: Solid
Analysis Batch: 8554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8542

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	43.2		mg/Kg		86	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*

Lab Sample ID: 885-7927-13 MS
Matrix: Solid
Analysis Batch: 8554

Client Sample ID: BH24-16 0'
Prep Type: Total/NA
Prep Batch: 8542

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		47.7	40.6		mg/Kg		85	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*

Lab Sample ID: 885-7927-13 MSD
Matrix: Solid
Analysis Batch: 8554

Client Sample ID: BH24-16 0'
Prep Type: Total/NA
Prep Batch: 8542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.0	43.5		mg/Kg		89	44 - 136	7	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*

Lab Sample ID: MB 885-8574/1-A
Matrix: Solid
Analysis Batch: 8554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8574

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/17/24 11:38	07/17/24 13:34	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 11:38	07/17/24 13:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/17/24 11:38*	*07/17/24 13:34*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCS 885-8574/2-A
Matrix: Solid
Analysis Batch: 8554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8574

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	35.2		mg/Kg		70	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-8548/1-A
Matrix: Solid
Analysis Batch: 8619

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8548

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		07/17/24 09:06	07/17/24 10:43	1

Lab Sample ID: LCS 885-8548/2-A
Matrix: Solid
Analysis Batch: 8619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8548

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.2		mg/Kg		95	90 - 110		

Lab Sample ID: MB 885-8564/1-A
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8564

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/17/24 10:52	07/17/24 13:38	1

Lab Sample ID: LCS 885-8564/2-A
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8564

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.4		mg/Kg		95	90 - 110		

Lab Sample ID: 885-7927-6 MS
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: BH24-13 4'
Prep Type: Total/NA
Prep Batch: 8564

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	65		30.1	101		mg/Kg		119	50 - 150		

Lab Sample ID: 885-7927-6 MSD
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: BH24-13 4'
Prep Type: Total/NA
Prep Batch: 8564

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	65		30.2	93.9		mg/Kg		94	50 - 150	8	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-8592/1-A
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8592

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/17/24 13:50	07/17/24 21:27	1

Lab Sample ID: LCS 885-8592/2-A
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8592

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.5		mg/Kg		95	90 - 110		

Lab Sample ID: 885-7927-24 MS
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: BH24-19 4'
Prep Type: Total/NA
Prep Batch: 8592

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	180		30.1	198	4	mg/Kg		43	50 - 150		

Lab Sample ID: 885-7927-24 MSD
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: BH24-19 4'
Prep Type: Total/NA
Prep Batch: 8592

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	180		30.3	197	4	mg/Kg		41	50 - 150	0	20

Lab Sample ID: 885-7927-25 MS
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: BH24-20 0'
Prep Type: Total/NA
Prep Batch: 8592

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		29.7	73.1		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-7927-25 MSD
Matrix: Solid
Analysis Batch: 8625

Client Sample ID: BH24-20 0'
Prep Type: Total/NA
Prep Batch: 8592

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		30.1	72.9		mg/Kg		NC	50 - 150	0	20

Lab Sample ID: MB 885-8749/101
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			07/18/24 22:37	1

Lab Sample ID: MRL 885-8749/100
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.523		mg/L		105	50 - 150		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

GC VOA

Prep Batch: 8444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-1	BH24-12 0'	Total/NA	Solid	5030C	
885-7927-2	BH24-12 2'	Total/NA	Solid	5030C	
885-7927-3	BH24-12 4'	Total/NA	Solid	5030C	
885-7927-4	BH24-13 0'	Total/NA	Solid	5030C	
885-7927-5	BH24-13 2'	Total/NA	Solid	5030C	
885-7927-6	BH24-13 4'	Total/NA	Solid	5030C	
885-7927-7	BH24-14 0'	Total/NA	Solid	5030C	
885-7927-8	BH24-14 2'	Total/NA	Solid	5030C	
885-7927-9	BH24-14 4'	Total/NA	Solid	5030C	
885-7927-10	BH24-15 0'	Total/NA	Solid	5030C	
885-7927-11	BH24-15 2'	Total/NA	Solid	5030C	
885-7927-12	BH24-15 4'	Total/NA	Solid	5030C	
885-7927-13	BH24-16 0'	Total/NA	Solid	5030C	
885-7927-14	BH24-16 2'	Total/NA	Solid	5030C	
885-7927-15	BH24-16 4'	Total/NA	Solid	5030C	
885-7927-16	BH24-17 0'	Total/NA	Solid	5030C	
885-7927-17	BH24-17 2'	Total/NA	Solid	5030C	
MB 885-8444/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8444/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8444/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-7927-1 MS	BH24-12 0'	Total/NA	Solid	5030C	
885-7927-1 MSD	BH24-12 0'	Total/NA	Solid	5030C	
885-7927-2 MS	BH24-12 2'	Total/NA	Solid	5030C	
885-7927-2 MSD	BH24-12 2'	Total/NA	Solid	5030C	

Prep Batch: 8481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-18	BH24-17 4'	Total/NA	Solid	5030C	
885-7927-19	BH24-18 0'	Total/NA	Solid	5030C	
885-7927-20	BH24-18 2'	Total/NA	Solid	5030C	
885-7927-21	BH24-18 4'	Total/NA	Solid	5030C	
885-7927-22	BH24-19 0'	Total/NA	Solid	5030C	
885-7927-23	BH24-19 2'	Total/NA	Solid	5030C	
MB 885-8481/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8481/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8481/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 8499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-24	BH24-19 4'	Total/NA	Solid	5030C	
885-7927-25	BH24-20 0'	Total/NA	Solid	5030C	
885-7927-26	BH24-20 2'	Total/NA	Solid	5030C	
885-7927-27	BH24-20 4'	Total/NA	Solid	5030C	
MB 885-8499/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8499/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8499/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-7927-24 MS	BH24-19 4'	Total/NA	Solid	5030C	
885-7927-24 MSD	BH24-19 4'	Total/NA	Solid	5030C	
885-7927-25 MS	BH24-20 0'	Total/NA	Solid	5030C	
885-7927-25 MSD	BH24-20 0'	Total/NA	Solid	5030C	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

GC VOA

Analysis Batch: 8543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-1	BH24-12 0'	Total/NA	Solid	8015M/D	8444
885-7927-2	BH24-12 2'	Total/NA	Solid	8015M/D	8444
885-7927-3	BH24-12 4'	Total/NA	Solid	8015M/D	8444
885-7927-4	BH24-13 0'	Total/NA	Solid	8015M/D	8444
885-7927-5	BH24-13 2'	Total/NA	Solid	8015M/D	8444
885-7927-6	BH24-13 4'	Total/NA	Solid	8015M/D	8444
885-7927-7	BH24-14 0'	Total/NA	Solid	8015M/D	8444
885-7927-8	BH24-14 2'	Total/NA	Solid	8015M/D	8444
885-7927-9	BH24-14 4'	Total/NA	Solid	8015M/D	8444
885-7927-10	BH24-15 0'	Total/NA	Solid	8015M/D	8444
885-7927-11	BH24-15 2'	Total/NA	Solid	8015M/D	8444
885-7927-12	BH24-15 4'	Total/NA	Solid	8015M/D	8444
885-7927-13	BH24-16 0'	Total/NA	Solid	8015M/D	8444
885-7927-14	BH24-16 2'	Total/NA	Solid	8015M/D	8444
885-7927-15	BH24-16 4'	Total/NA	Solid	8015M/D	8444
885-7927-16	BH24-17 0'	Total/NA	Solid	8015M/D	8444
885-7927-17	BH24-17 2'	Total/NA	Solid	8015M/D	8444
MB 885-8444/1-A	Method Blank	Total/NA	Solid	8015M/D	8444
LCS 885-8444/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8444
885-7927-1 MS	BH24-12 0'	Total/NA	Solid	8015M/D	8444
885-7927-1 MSD	BH24-12 0'	Total/NA	Solid	8015M/D	8444

Analysis Batch: 8544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-1	BH24-12 0'	Total/NA	Solid	8021B	8444
885-7927-2	BH24-12 2'	Total/NA	Solid	8021B	8444
885-7927-3	BH24-12 4'	Total/NA	Solid	8021B	8444
885-7927-4	BH24-13 0'	Total/NA	Solid	8021B	8444
885-7927-5	BH24-13 2'	Total/NA	Solid	8021B	8444
885-7927-6	BH24-13 4'	Total/NA	Solid	8021B	8444
885-7927-7	BH24-14 0'	Total/NA	Solid	8021B	8444
885-7927-8	BH24-14 2'	Total/NA	Solid	8021B	8444
885-7927-9	BH24-14 4'	Total/NA	Solid	8021B	8444
885-7927-10	BH24-15 0'	Total/NA	Solid	8021B	8444
885-7927-11	BH24-15 2'	Total/NA	Solid	8021B	8444
885-7927-12	BH24-15 4'	Total/NA	Solid	8021B	8444
885-7927-13	BH24-16 0'	Total/NA	Solid	8021B	8444
885-7927-14	BH24-16 2'	Total/NA	Solid	8021B	8444
885-7927-15	BH24-16 4'	Total/NA	Solid	8021B	8444
885-7927-16	BH24-17 0'	Total/NA	Solid	8021B	8444
885-7927-17	BH24-17 2'	Total/NA	Solid	8021B	8444
MB 885-8444/1-A	Method Blank	Total/NA	Solid	8021B	8444
LCS 885-8444/3-A	Lab Control Sample	Total/NA	Solid	8021B	8444
885-7927-2 MS	BH24-12 2'	Total/NA	Solid	8021B	8444
885-7927-2 MSD	BH24-12 2'	Total/NA	Solid	8021B	8444

Analysis Batch: 8677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-18	BH24-17 4'	Total/NA	Solid	8021B	8481
885-7927-19	BH24-18 0'	Total/NA	Solid	8021B	8481
885-7927-20	BH24-18 2'	Total/NA	Solid	8021B	8481

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

GC VOA (Continued)

Analysis Batch: 8677 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-21	BH24-18 4'	Total/NA	Solid	8021B	8481
885-7927-22	BH24-19 0'	Total/NA	Solid	8021B	8481
885-7927-23	BH24-19 2'	Total/NA	Solid	8021B	8481
MB 885-8481/1-A	Method Blank	Total/NA	Solid	8021B	8481
LCS 885-8481/3-A	Lab Control Sample	Total/NA	Solid	8021B	8481

Analysis Batch: 8678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-24	BH24-19 4'	Total/NA	Solid	8021B	8499
885-7927-25	BH24-20 0'	Total/NA	Solid	8021B	8499
885-7927-26	BH24-20 2'	Total/NA	Solid	8021B	8499
885-7927-27	BH24-20 4'	Total/NA	Solid	8021B	8499
MB 885-8499/1-A	Method Blank	Total/NA	Solid	8021B	8499
LCS 885-8499/3-A	Lab Control Sample	Total/NA	Solid	8021B	8499
885-7927-25 MS	BH24-20 0'	Total/NA	Solid	8021B	8499
885-7927-25 MSD	BH24-20 0'	Total/NA	Solid	8021B	8499

Analysis Batch: 8768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-18	BH24-17 4'	Total/NA	Solid	8015M/D	8481
885-7927-19	BH24-18 0'	Total/NA	Solid	8015M/D	8481
885-7927-20	BH24-18 2'	Total/NA	Solid	8015M/D	8481
885-7927-21	BH24-18 4'	Total/NA	Solid	8015M/D	8481
885-7927-22	BH24-19 0'	Total/NA	Solid	8015M/D	8481
885-7927-23	BH24-19 2'	Total/NA	Solid	8015M/D	8481
MB 885-8481/1-A	Method Blank	Total/NA	Solid	8015M/D	8481
LCS 885-8481/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8481

Analysis Batch: 8769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-24	BH24-19 4'	Total/NA	Solid	8015M/D	8499
885-7927-25	BH24-20 0'	Total/NA	Solid	8015M/D	8499
885-7927-26	BH24-20 2'	Total/NA	Solid	8015M/D	8499
885-7927-27	BH24-20 4'	Total/NA	Solid	8015M/D	8499
MB 885-8499/1-A	Method Blank	Total/NA	Solid	8015M/D	8499
LCS 885-8499/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8499
885-7927-24 MS	BH24-19 4'	Total/NA	Solid	8015M/D	8499
885-7927-24 MSD	BH24-19 4'	Total/NA	Solid	8015M/D	8499

GC Semi VOA

Prep Batch: 8542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-1	BH24-12 0'	Total/NA	Solid	SHAKE	
885-7927-2	BH24-12 2'	Total/NA	Solid	SHAKE	
885-7927-3	BH24-12 4'	Total/NA	Solid	SHAKE	
885-7927-4	BH24-13 0'	Total/NA	Solid	SHAKE	
885-7927-5	BH24-13 2'	Total/NA	Solid	SHAKE	
885-7927-6	BH24-13 4'	Total/NA	Solid	SHAKE	
885-7927-7	BH24-14 0'	Total/NA	Solid	SHAKE	
885-7927-8	BH24-14 2'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

GC Semi VOA (Continued)

Prep Batch: 8542 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-9	BH24-14 4'	Total/NA	Solid	SHAKE	
885-7927-10	BH24-15 0'	Total/NA	Solid	SHAKE	
885-7927-11	BH24-15 2'	Total/NA	Solid	SHAKE	
885-7927-12	BH24-15 4'	Total/NA	Solid	SHAKE	
885-7927-13	BH24-16 0'	Total/NA	Solid	SHAKE	
MB 885-8542/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8542/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-7927-13 MS	BH24-16 0'	Total/NA	Solid	SHAKE	
885-7927-13 MSD	BH24-16 0'	Total/NA	Solid	SHAKE	

Analysis Batch: 8554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-1	BH24-12 0'	Total/NA	Solid	8015M/D	8542
885-7927-2	BH24-12 2'	Total/NA	Solid	8015M/D	8542
885-7927-3	BH24-12 4'	Total/NA	Solid	8015M/D	8542
885-7927-4	BH24-13 0'	Total/NA	Solid	8015M/D	8542
885-7927-5	BH24-13 2'	Total/NA	Solid	8015M/D	8542
885-7927-6	BH24-13 4'	Total/NA	Solid	8015M/D	8542
885-7927-7	BH24-14 0'	Total/NA	Solid	8015M/D	8542
885-7927-8	BH24-14 2'	Total/NA	Solid	8015M/D	8542
885-7927-9	BH24-14 4'	Total/NA	Solid	8015M/D	8542
885-7927-10	BH24-15 0'	Total/NA	Solid	8015M/D	8542
885-7927-11	BH24-15 2'	Total/NA	Solid	8015M/D	8542
885-7927-12	BH24-15 4'	Total/NA	Solid	8015M/D	8542
885-7927-13	BH24-16 0'	Total/NA	Solid	8015M/D	8542
885-7927-14	BH24-16 2'	Total/NA	Solid	8015M/D	8574
885-7927-15	BH24-16 4'	Total/NA	Solid	8015M/D	8574
885-7927-16	BH24-17 0'	Total/NA	Solid	8015M/D	8574
885-7927-17	BH24-17 2'	Total/NA	Solid	8015M/D	8574
885-7927-18	BH24-17 4'	Total/NA	Solid	8015M/D	8574
885-7927-19	BH24-18 0'	Total/NA	Solid	8015M/D	8574
885-7927-20	BH24-18 2'	Total/NA	Solid	8015M/D	8574
885-7927-21	BH24-18 4'	Total/NA	Solid	8015M/D	8574
885-7927-22	BH24-19 0'	Total/NA	Solid	8015M/D	8574
885-7927-23	BH24-19 2'	Total/NA	Solid	8015M/D	8574
885-7927-24	BH24-19 4'	Total/NA	Solid	8015M/D	8574
885-7927-25	BH24-20 0'	Total/NA	Solid	8015M/D	8574
885-7927-26	BH24-20 2'	Total/NA	Solid	8015M/D	8574
885-7927-27	BH24-20 4'	Total/NA	Solid	8015M/D	8574
MB 885-8542/1-A	Method Blank	Total/NA	Solid	8015M/D	8542
MB 885-8574/1-A	Method Blank	Total/NA	Solid	8015M/D	8574
LCS 885-8542/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8542
LCS 885-8574/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8574
885-7927-13 MS	BH24-16 0'	Total/NA	Solid	8015M/D	8542
885-7927-13 MSD	BH24-16 0'	Total/NA	Solid	8015M/D	8542

Prep Batch: 8574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-14	BH24-16 2'	Total/NA	Solid	SHAKE	
885-7927-15	BH24-16 4'	Total/NA	Solid	SHAKE	
885-7927-16	BH24-17 0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

GC Semi VOA (Continued)

Prep Batch: 8574 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-17	BH24-17 2'	Total/NA	Solid	SHAKE	
885-7927-18	BH24-17 4'	Total/NA	Solid	SHAKE	
885-7927-19	BH24-18 0'	Total/NA	Solid	SHAKE	
885-7927-20	BH24-18 2'	Total/NA	Solid	SHAKE	
885-7927-21	BH24-18 4'	Total/NA	Solid	SHAKE	
885-7927-22	BH24-19 0'	Total/NA	Solid	SHAKE	
885-7927-23	BH24-19 2'	Total/NA	Solid	SHAKE	
885-7927-24	BH24-19 4'	Total/NA	Solid	SHAKE	
885-7927-25	BH24-20 0'	Total/NA	Solid	SHAKE	
885-7927-26	BH24-20 2'	Total/NA	Solid	SHAKE	
885-7927-27	BH24-20 4'	Total/NA	Solid	SHAKE	
MB 885-8574/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8574/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 8548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-1	BH24-12 0'	Total/NA	Solid	300_Prep	
885-7927-2	BH24-12 2'	Total/NA	Solid	300_Prep	
885-7927-3	BH24-12 4'	Total/NA	Solid	300_Prep	
MB 885-8548/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8548/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 8564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-4	BH24-13 0'	Total/NA	Solid	300_Prep	
885-7927-5	BH24-13 2'	Total/NA	Solid	300_Prep	
885-7927-6	BH24-13 4'	Total/NA	Solid	300_Prep	
885-7927-7	BH24-14 0'	Total/NA	Solid	300_Prep	
885-7927-8	BH24-14 2'	Total/NA	Solid	300_Prep	
885-7927-9	BH24-14 4'	Total/NA	Solid	300_Prep	
885-7927-10	BH24-15 0'	Total/NA	Solid	300_Prep	
885-7927-11	BH24-15 2'	Total/NA	Solid	300_Prep	
885-7927-12	BH24-15 4'	Total/NA	Solid	300_Prep	
885-7927-13	BH24-16 0'	Total/NA	Solid	300_Prep	
885-7927-14	BH24-16 2'	Total/NA	Solid	300_Prep	
885-7927-15	BH24-16 4'	Total/NA	Solid	300_Prep	
885-7927-16	BH24-17 0'	Total/NA	Solid	300_Prep	
885-7927-17	BH24-17 2'	Total/NA	Solid	300_Prep	
885-7927-18	BH24-17 4'	Total/NA	Solid	300_Prep	
885-7927-19	BH24-18 0'	Total/NA	Solid	300_Prep	
885-7927-20	BH24-18 2'	Total/NA	Solid	300_Prep	
885-7927-21	BH24-18 4'	Total/NA	Solid	300_Prep	
885-7927-22	BH24-19 0'	Total/NA	Solid	300_Prep	
885-7927-23	BH24-19 2'	Total/NA	Solid	300_Prep	
MB 885-8564/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8564/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-7927-6 MS	BH24-13 4'	Total/NA	Solid	300_Prep	
885-7927-6 MSD	BH24-13 4'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

HPLC/IC

Prep Batch: 8592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-24	BH24-19 4'	Total/NA	Solid	300_Prep	
885-7927-25	BH24-20 0'	Total/NA	Solid	300_Prep	
885-7927-26	BH24-20 2'	Total/NA	Solid	300_Prep	
885-7927-27	BH24-20 4'	Total/NA	Solid	300_Prep	
MB 885-8592/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8592/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-7927-24 MS	BH24-19 4'	Total/NA	Solid	300_Prep	
885-7927-24 MSD	BH24-19 4'	Total/NA	Solid	300_Prep	
885-7927-25 MS	BH24-20 0'	Total/NA	Solid	300_Prep	
885-7927-25 MSD	BH24-20 0'	Total/NA	Solid	300_Prep	

Analysis Batch: 8619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-1	BH24-12 0'	Total/NA	Solid	300.0	8548
885-7927-2	BH24-12 2'	Total/NA	Solid	300.0	8548
885-7927-3	BH24-12 4'	Total/NA	Solid	300.0	8548
MB 885-8548/1-A	Method Blank	Total/NA	Solid	300.0	8548
LCS 885-8548/2-A	Lab Control Sample	Total/NA	Solid	300.0	8548

Analysis Batch: 8625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-5	BH24-13 2'	Total/NA	Solid	300.0	8564
885-7927-6	BH24-13 4'	Total/NA	Solid	300.0	8564
885-7927-7	BH24-14 0'	Total/NA	Solid	300.0	8564
885-7927-8	BH24-14 2'	Total/NA	Solid	300.0	8564
885-7927-9	BH24-14 4'	Total/NA	Solid	300.0	8564
885-7927-10	BH24-15 0'	Total/NA	Solid	300.0	8564
885-7927-11	BH24-15 2'	Total/NA	Solid	300.0	8564
885-7927-12	BH24-15 4'	Total/NA	Solid	300.0	8564
885-7927-14	BH24-16 2'	Total/NA	Solid	300.0	8564
885-7927-15	BH24-16 4'	Total/NA	Solid	300.0	8564
885-7927-16	BH24-17 0'	Total/NA	Solid	300.0	8564
885-7927-17	BH24-17 2'	Total/NA	Solid	300.0	8564
885-7927-18	BH24-17 4'	Total/NA	Solid	300.0	8564
885-7927-19	BH24-18 0'	Total/NA	Solid	300.0	8564
885-7927-20	BH24-18 2'	Total/NA	Solid	300.0	8564
885-7927-21	BH24-18 4'	Total/NA	Solid	300.0	8564
885-7927-23	BH24-19 2'	Total/NA	Solid	300.0	8564
885-7927-24	BH24-19 4'	Total/NA	Solid	300.0	8592
885-7927-25	BH24-20 0'	Total/NA	Solid	300.0	8592
885-7927-26	BH24-20 2'	Total/NA	Solid	300.0	8592
885-7927-27	BH24-20 4'	Total/NA	Solid	300.0	8592
MB 885-8564/1-A	Method Blank	Total/NA	Solid	300.0	8564
MB 885-8592/1-A	Method Blank	Total/NA	Solid	300.0	8592
LCS 885-8564/2-A	Lab Control Sample	Total/NA	Solid	300.0	8564
LCS 885-8592/2-A	Lab Control Sample	Total/NA	Solid	300.0	8592
885-7927-6 MS	BH24-13 4'	Total/NA	Solid	300.0	8564
885-7927-6 MSD	BH24-13 4'	Total/NA	Solid	300.0	8564
885-7927-24 MS	BH24-19 4'	Total/NA	Solid	300.0	8592
885-7927-24 MSD	BH24-19 4'	Total/NA	Solid	300.0	8592
885-7927-25 MS	BH24-20 0'	Total/NA	Solid	300.0	8592

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

HPLC/IC (Continued)

Analysis Batch: 8625 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-25 MSD	BH24-20 0'	Total/NA	Solid	300.0	8592

Analysis Batch: 8749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7927-4	BH24-13 0'	Total/NA	Solid	300.0	8564
885-7927-13	BH24-16 0'	Total/NA	Solid	300.0	8564
885-7927-22	BH24-19 0'	Total/NA	Solid	300.0	8564
MB 885-8749/101	Method Blank	Total/NA	Solid	300.0	
MRL 885-8749/100	Lab Control Sample	Total/NA	Solid	300.0	

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-7927-1

Client Sample ID: BH24-12 0'

Lab Sample ID: 885-7927-1
Matrix: Solid
Date Collected: 07/11/24 09:00
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 12:36
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 12:36
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 21:04
Total/NA	Prep	300_Prep			8548	RC	EET ALB	07/17/24 09:06
Total/NA	Analysis	300.0		20	8619	RC	EET ALB	07/17/24 11:25

Client Sample ID: BH24-12 2'

Lab Sample ID: 885-7927-2
Matrix: Solid
Date Collected: 07/11/24 09:05
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 13:42
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 13:42
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 21:17
Total/NA	Prep	300_Prep			8548	RC	EET ALB	07/17/24 09:06
Total/NA	Analysis	300.0		20	8619	RC	EET ALB	07/17/24 11:38

Client Sample ID: BH24-12 4'

Lab Sample ID: 885-7927-3
Matrix: Solid
Date Collected: 07/11/24 09:10
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 14:48
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 14:48
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 21:30
Total/NA	Prep	300_Prep			8548	RC	EET ALB	07/17/24 09:06
Total/NA	Analysis	300.0		20	8619	RC	EET ALB	07/17/24 11:50

Client Sample ID: BH24-13 0'

Lab Sample ID: 885-7927-4
Matrix: Solid
Date Collected: 07/11/24 09:20
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 15:10

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-13 0'
Lab Sample ID: 885-7927-4
Date Collected: 07/11/24 09:20
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 15:10
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 21:55
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		50	8749	JT	EET ALB	07/18/24 08:43

Client Sample ID: BH24-13 2'
Lab Sample ID: 885-7927-5
Date Collected: 07/11/24 09:25
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 15:32
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 15:32
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 22:08
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 14:39

Client Sample ID: BH24-13 4'
Lab Sample ID: 885-7927-6
Date Collected: 07/11/24 09:30
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 15:54
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 15:54
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 22:21
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 14:52

Client Sample ID: BH24-14 0'
Lab Sample ID: 885-7927-7
Date Collected: 07/11/24 09:40
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 16:16
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 16:16

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-14 0'
Lab Sample ID: 885-7927-7
Date Collected: 07/11/24 09:40
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 22:34
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 15:29

Client Sample ID: BH24-14 2'
Lab Sample ID: 885-7927-8
Date Collected: 07/11/24 09:45
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 16:38
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 16:38
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 22:46
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 16:06

Client Sample ID: BH24-14 4'
Lab Sample ID: 885-7927-9
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 17:00
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 17:00
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 22:59
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 16:18

Client Sample ID: BH24-15 0'
Lab Sample ID: 885-7927-10
Date Collected: 07/11/24 10:00
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 17:22
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 17:22
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 23:12

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-15 0'
Lab Sample ID: 885-7927-10
Date Collected: 07/11/24 10:00
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 16:31

Client Sample ID: BH24-15 2'
Lab Sample ID: 885-7927-11
Date Collected: 07/11/24 10:05
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 18:06
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 18:06
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 23:25
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 16:43

Client Sample ID: BH24-15 4'
Lab Sample ID: 885-7927-12
Date Collected: 07/11/24 10:15
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 18:28
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 18:28
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 23:37
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 16:55

Client Sample ID: BH24-16 0'
Lab Sample ID: 885-7927-13
Date Collected: 07/11/24 10:30
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 18:50
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 18:50
Total/NA	Prep	SHAKE			8542	KR	EET ALB	07/17/24 08:26
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 23:50
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		100	8749	JT	EET ALB	07/18/24 08:55

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-16 2'
Lab Sample ID: 885-7927-14
Date Collected: 07/11/24 10:35
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 19:12
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 19:12
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 14:00
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 17:20

Client Sample ID: BH24-16 4'
Lab Sample ID: 885-7927-15
Date Collected: 07/11/24 10:40
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 19:34
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 19:34
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 14:12
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 17:32

Client Sample ID: BH24-17 0'
Lab Sample ID: 885-7927-16
Date Collected: 07/11/24 10:45
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 19:56
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 19:56
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 14:25
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 17:45

Client Sample ID: BH24-17 2'
Lab Sample ID: 885-7927-17
Date Collected: 07/11/24 10:50
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8015M/D		1	8543	AT	EET ALB	07/16/24 20:18

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-17 2'
Lab Sample ID: 885-7927-17
Date Collected: 07/11/24 10:50
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8444	AT	EET ALB	07/15/24 14:49
Total/NA	Analysis	8021B		1	8544	AT	EET ALB	07/16/24 20:18
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 14:38
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 17:57

Client Sample ID: BH24-17 4'
Lab Sample ID: 885-7927-18
Date Collected: 07/11/24 10:55
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8015M/D		1	8768	AT	EET ALB	07/18/24 20:33
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8021B		1	8677	AT	EET ALB	07/17/24 19:51
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 14:51
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 18:34

Client Sample ID: BH24-18 0'
Lab Sample ID: 885-7927-19
Date Collected: 07/11/24 11:00
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8015M/D		1	8768	AT	EET ALB	07/18/24 20:55
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8021B		1	8677	AT	EET ALB	07/17/24 20:13
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 15:04
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 18:46

Client Sample ID: BH24-18 2'
Lab Sample ID: 885-7927-20
Date Collected: 07/11/24 11:05
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8015M/D		1	8768	AT	EET ALB	07/18/24 21:17
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8021B		1	8677	AT	EET ALB	07/17/24 20:35

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-18 2'
Lab Sample ID: 885-7927-20
Date Collected: 07/11/24 11:05
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 15:16
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 18:59

Client Sample ID: BH24-18 4'
Lab Sample ID: 885-7927-21
Date Collected: 07/11/24 11:10
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8015M/D		1	8768	AT	EET ALB	07/18/24 21:39
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8021B		1	8677	AT	EET ALB	07/17/24 20:56
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 15:29
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 19:11

Client Sample ID: BH24-19 0'
Lab Sample ID: 885-7927-22
Date Collected: 07/11/24 12:55
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8015M/D		1	8768	AT	EET ALB	07/18/24 22:01
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8021B		1	8677	AT	EET ALB	07/17/24 21:18
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 15:42
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		50	8749	JT	EET ALB	07/18/24 09:07

Client Sample ID: BH24-19 2'
Lab Sample ID: 885-7927-23
Date Collected: 07/11/24 13:00
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8015M/D		1	8768	AT	EET ALB	07/18/24 22:22
Total/NA	Prep	5030C			8481	AT	EET ALB	07/16/24 10:33
Total/NA	Analysis	8021B		1	8677	AT	EET ALB	07/17/24 21:40
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 15:55

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-19 2'
Lab Sample ID: 885-7927-23
Date Collected: 07/11/24 13:00
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			8564	RC	EET ALB	07/17/24 10:52
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 19:36

Client Sample ID: BH24-19 4'
Lab Sample ID: 885-7927-24
Date Collected: 07/11/24 13:05
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8015M/D		1	8769	AT	EET ALB	07/19/24 01:17
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8021B		1	8678	AT	EET ALB	07/18/24 01:18
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 16:21
Total/NA	Prep	300_Prep			8592	RC	EET ALB	07/17/24 13:50
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 21:52

Client Sample ID: BH24-20 0'
Lab Sample ID: 885-7927-25
Date Collected: 07/11/24 13:10
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8015M/D		1	8769	AT	EET ALB	07/19/24 02:22
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8021B		1	8678	AT	EET ALB	07/18/24 02:23
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 16:34
Total/NA	Prep	300_Prep			8592	RC	EET ALB	07/17/24 13:50
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 22:29

Client Sample ID: BH24-20 2'
Lab Sample ID: 885-7927-26
Date Collected: 07/11/24 13:15
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8015M/D		1	8769	AT	EET ALB	07/19/24 02:44
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8021B		1	8678	AT	EET ALB	07/18/24 03:28
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 16:47
Total/NA	Prep	300_Prep			8592	RC	EET ALB	07/17/24 13:50
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 23:30

Lab Chronicle

Client: Vertex
Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-20 4'
Lab Sample ID: 885-7927-27

Date Collected: 07/11/24 13:20
Matrix: Solid
Date Received: 07/13/24 07:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8015M/D		1	8769	AT	EET ALB	07/19/24 03:05
Total/NA	Prep	5030C			8499	JP	EET ALB	07/16/24 12:17
Total/NA	Analysis	8021B		1	8678	AT	EET ALB	07/18/24 03:50
Total/NA	Prep	SHAKE			8574	KR	EET ALB	07/17/24 11:38
Total/NA	Analysis	8015M/D		1	8554	PD	EET ALB	07/17/24 17:00
Total/NA	Prep	300_Prep			8592	RC	EET ALB	07/17/24 13:50
Total/NA	Analysis	300.0		20	8625	EH	EET ALB	07/17/24 23:43

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-7927-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 Days

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No
# of Coolers: 1 (4oz)
Cooler Temp(including CF): 6.1+0.1=0.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8
Tel. 505-345-3975 Fax 505-345-410

885-7927 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
7.11.24	9:00	Soil	BH24-12 0'	4oz Jar	ICE		x	x					x									
7.11.24	9:05	Soil	BH24-12 2'	4oz Jar	ICE		x	x					x									
7.11.24	9:10	Soil	BH24-12 4'	4oz Jar	ICE		x	x					x									
7.11.24	9:20	Soil	BH24-13 0'	4oz Jar	ICE		x	x					x									
7.11.24	9:25	Soil	BH24-13 2'	4oz Jar	ICE		x	x					x									
7.11.24	9:30	Soil	BH24-13 4'	4oz Jar	ICE		x	x					x									
7.11.24	9:40	Soil	BH24-14 0'	4oz Jar	ICE		x	x					x									
7.11.24	9:45	Soil	BH24-14 2'	4oz Jar	ICE		x	x					x									
7.11.24	9:50	Soil	BH24-14 4'	4oz Jar	ICE		x	x					x									
7.11.24	10:00	Soil	BH24-15 0'	4oz Jar	ICE		x	x					x									
7.11.24	10:05	Soil	BH24-15 2'	4oz Jar	ICE		x	x					x									
7.11.24	10:15	Soil	BH24-15 4'	4oz Jar	ICE		x	x					x									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7.12.24	0700	John Rewis	[signature]		7/12/24	0700
7/12/24	1900	[signature]	[signature]	Courier	7/13/24	7:10

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 Day

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ~~☐ Yes~~ ☐ No
# of Coolers: 1 Yes
Cooler Temp(including CF): 0.1+0.1=0.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
7.11.24	10:30	Soil	BH24-16 0'	4oz Jar	ICE		x	x					x									
7.11.24	10:35	Soil	BH24-16 2'	4oz Jar	ICE		x	x					x									
7.11.24	10:40	Soil	BH24-16 4'	4oz Jar	ICE		x	x					x									
7.11.24	10:45	Soil	BH24-17 0'	4oz Jar	ICE		x	x					x									
7.11.24	10:50	Soil	BH24-17 2'	4oz Jar	ICE		x	x					x									
7.11.24	10:55	Soil	BH24-17 4'	4oz Jar	ICE		x	x					x									
7.11.24	11:00	Soil	BH24-18 0'	4oz Jar	ICE		x	x					x									
7.11.24	11:05	Soil	BH24-18 2'	4oz Jar	ICE		x	x					x									
7.11.24	11:10	Soil	BH24-18 4'	4oz Jar	ICE		x	x					x									
7.11.24	12:55	Soil	BH24-19 0'	4oz Jar	ICE		x	x					x									
7.11.24	13:00	Soil	BH24-19 2'	4oz Jar	ICE		x	x					x									
7.11.24	.13:05	Soil	BH24-19 4'	4oz Jar	ICE		x	x					x									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7.12.24	0700	John Rewis			7/12/24	0700
7/12/24	1900			Courier	7/13/24	7:10

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 Days

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☐ ~~Yes~~ ☐ No
# of Coolers: 1 409°
Cooler Temp(including CF): 0.1+0.1=0.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
7.11.24	13:10	Soil	BH24-20 0'	4oz Jar	ICE		x	x					x									
7.11.24	13:15	Soil	BH24-20 2'	4oz Jar	ICE		x	x					x									
7.11.24	13:20	Soil	BH24-20 4'	4oz Jar	ICE		x	x					x									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7.12.24	0700	John Rewis			7/12/24	0700
7/12/24	1900				7/13/24	7:10

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-7927-1

Login Number: 7927 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Rojas, Juan

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/23/2024 12:23:38 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8086-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/23/2024 12:23:38 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8086-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 10
QC Association Summary 15
Lab Chronicle 18
Certification Summary 20
Chain of Custody 21
Receipt Checklists 22

Definitions/Glossary

Client: Vertex Job ID: 885-8086-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8086-1
Project: Dawson Creek State #2

Job ID: 885-8086-1 Eurofins Albuquerque

Job Narrative
885-8086-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/17/2024 7:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following sample was outside the upper control limit: BH24-28 6' (885-8086-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-8086-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-28 0'
Lab Sample ID: 885-8086-1
Date Collected: 07/13/24 09:00
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 09:20	07/18/24 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/17/24 09:20*	*07/18/24 22:11*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 09:20	07/18/24 22:11	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 09:20	07/18/24 22:11	1
Toluene	ND		0.049		mg/Kg		07/17/24 09:20	07/18/24 22:11	1
Xylenes, Total	ND		0.097		mg/Kg		07/17/24 09:20	07/18/24 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 09:20*	*07/18/24 22:11*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/17/24 16:31	07/20/24 01:40	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 16:31	07/20/24 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*	*07/17/24 16:31*	*07/20/24 01:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5500**		300		mg/Kg		07/18/24 08:22	07/19/24 07:42	100

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Client Sample ID: BH24-28 2'

Date Collected: 07/13/24 09:10
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8086-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 09:20	07/18/24 22:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/17/24 09:20*	*07/18/24 22:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 09:20	07/18/24 22:35	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 09:20	07/18/24 22:35	1
Toluene	ND		0.050		mg/Kg		07/17/24 09:20	07/18/24 22:35	1
Xylenes, Total	ND		0.099		mg/Kg		07/17/24 09:20	07/18/24 22:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 09:20*	*07/18/24 22:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/18/24 08:11	07/19/24 21:12	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/19/24 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*121*		*62 - 134*	*07/18/24 08:11*	*07/19/24 21:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1200**		60		mg/Kg		07/18/24 09:40	07/18/24 16:27	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Client Sample ID: BH24-28 4'

Date Collected: 07/13/24 09:20
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8086-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 09:20	07/18/24 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/17/24 09:20*	*07/18/24 23:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 09:20	07/18/24 23:22	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 09:20	07/18/24 23:22	1
Toluene	ND		0.050		mg/Kg		07/17/24 09:20	07/18/24 23:22	1
Xylenes, Total	ND		0.099		mg/Kg		07/17/24 09:20	07/18/24 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/17/24 09:20*	*07/18/24 23:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/18/24 08:11	07/19/24 21:23	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/19/24 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*07/18/24 08:11*	*07/19/24 21:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		07/18/24 09:40	07/18/24 17:04	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Client Sample ID: BH24-28 6'

Date Collected: 07/13/24 09:30
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8086-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/17/24 11:22	07/19/24 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/17/24 11:22*	*07/19/24 13:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/22/24 14:32	1
Ethylbenzene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 14:32	1
Toluene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 14:32	1
Xylenes, Total	ND		0.094		mg/Kg		07/17/24 11:22	07/22/24 14:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 11:22*	*07/22/24 14:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/18/24 08:11	07/19/24 21:35	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/19/24 21:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*186*	*S1+*	*62 - 134*	*07/18/24 08:11*	*07/19/24 21:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**590**		60		mg/Kg		07/18/24 09:40	07/18/24 17:16	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8549/1-A
Matrix: Solid
Analysis Batch: 8761

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8549

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 09:20	07/18/24 12:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/17/24 09:20*	*07/18/24 12:20*	*1*

Lab Sample ID: LCS 885-8549/2-A
Matrix: Solid
Analysis Batch: 8761

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8549

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	23.2		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*201*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8569/1-A
Matrix: Solid
Analysis Batch: 8846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8569

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 11:22	07/19/24 13:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*07/17/24 11:22*	*07/19/24 13:24*	*1*

Lab Sample ID: LCS 885-8569/2-A
Matrix: Solid
Analysis Batch: 8846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8569

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.0		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*197*	*S1+*	*35 - 166*

Lab Sample ID: 885-8086-4 MS
Matrix: Solid
Analysis Batch: 8846

Client Sample ID: BH24-28 6'
Prep Type: Total/NA
Prep Batch: 8569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		23.6	22.7		mg/Kg		96	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*216*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-8086-4 MSD
Matrix: Solid
Analysis Batch: 8846

Client Sample ID: BH24-28 6'
Prep Type: Total/NA
Prep Batch: 8569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		23.8	21.9		mg/Kg		92	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*217*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8549/1-A
Matrix: Solid
Analysis Batch: 8763

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8549

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 09:20	07/18/24 12:20	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 09:20	07/18/24 12:20	1
Toluene	ND		0.050		mg/Kg		07/17/24 09:20	07/18/24 12:20	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 09:20	07/18/24 12:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/17/24 09:20*	*07/18/24 12:20*	*1*

Lab Sample ID: LCS 885-8549/3-A
Matrix: Solid
Analysis Batch: 8763

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8549

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.891		mg/Kg		89	70 - 130		
Ethylbenzene			1.00	0.852		mg/Kg		85	70 - 130		
m,p-Xylene			2.00	1.74		mg/Kg		87	70 - 130		
o-Xylene			1.00	0.842		mg/Kg		84	70 - 130		
Toluene			1.00	0.848		mg/Kg		85	70 - 130		
Xylenes, Total			3.00	2.58		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*

Lab Sample ID: MB 885-8569/1-A
Matrix: Solid
Analysis Batch: 8979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8569

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 11:22	07/22/24 14:11	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 11:22	07/22/24 14:11	1
Toluene	ND		0.050		mg/Kg		07/17/24 11:22	07/22/24 14:11	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 11:22	07/22/24 14:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 11:22*	*07/22/24 14:11*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 885-8569/3-A
Matrix: Solid
Analysis Batch: 8979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8569

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.851		mg/Kg		85	70 - 130		
Ethylbenzene			1.00	0.870		mg/Kg		87	70 - 130		
m,p-Xylene			2.00	1.73		mg/Kg		86	70 - 130		
o-Xylene			1.00	0.868		mg/Kg		87	70 - 130		
Toluene			1.00	0.858		mg/Kg		86	70 - 130		
Xylenes, Total			3.00	2.60		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8606/1-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8606

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/17/24 16:31	07/19/24 09:58	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/17/24 16:31	07/19/24 09:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*117*		*62 - 134*	*07/17/24 16:31*	*07/19/24 09:58*	*1*

Lab Sample ID: LCS 885-8606/2-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8606

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	55.1		mg/Kg		110	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*

Lab Sample ID: 885-8086-1 MS
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: BH24-28 0'
Prep Type: Total/NA
Prep Batch: 8606

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		44.8	48.4		mg/Kg		108	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 885-8086-1 MSD
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: BH24-28 0'
Prep Type: Total/NA
Prep Batch: 8606

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.7	52.4		mg/Kg		112	44 - 136	8	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*112*		*62 - 134*

Lab Sample ID: MB 885-8624/1-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 08:11	07/19/24 10:31	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 08:11	07/19/24 10:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/18/24 08:11*	*07/19/24 10:31*	*1*

Lab Sample ID: LCS 885-8624/2-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8624

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	44.7		mg/Kg		89	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-8628/1-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/18/24 08:22	07/18/24 09:20	1

Lab Sample ID: LCS 885-8628/2-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.3		mg/Kg		94	90 - 110		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-8642/1-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8642

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/18/24 09:40	07/18/24 16:02	1

Lab Sample ID: LCS 885-8642/2-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8642

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.4		mg/Kg		95	90 - 110		

Lab Sample ID: 885-8086-2 MS
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: BH24-28 2'
Prep Type: Total/NA
Prep Batch: 8642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1200		30.0	1150	4	mg/Kg		-289	50 - 150		

Lab Sample ID: 885-8086-2 MSD
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: BH24-28 2'
Prep Type: Total/NA
Prep Batch: 8642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1200		29.9	1090	4	mg/Kg		-475	50 - 150	5	20

Lab Sample ID: MB 885-8749/101
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			07/18/24 22:37	1

Lab Sample ID: MRL 885-8749/100
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.523		mg/L		105	50 - 150		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

GC VOA

Prep Batch: 8549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-1	BH24-28 0'	Total/NA	Solid	5030C	
885-8086-2	BH24-28 2'	Total/NA	Solid	5030C	
885-8086-3	BH24-28 4'	Total/NA	Solid	5030C	
MB 885-8549/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8549/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8549/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 8569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-4	BH24-28 6'	Total/NA	Solid	5030C	
MB 885-8569/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8569/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8569/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8086-4 MS	BH24-28 6'	Total/NA	Solid	5030C	
885-8086-4 MSD	BH24-28 6'	Total/NA	Solid	5030C	

Analysis Batch: 8761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-1	BH24-28 0'	Total/NA	Solid	8015M/D	8549
885-8086-2	BH24-28 2'	Total/NA	Solid	8015M/D	8549
885-8086-3	BH24-28 4'	Total/NA	Solid	8015M/D	8549
MB 885-8549/1-A	Method Blank	Total/NA	Solid	8015M/D	8549
LCS 885-8549/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8549

Analysis Batch: 8763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-1	BH24-28 0'	Total/NA	Solid	8021B	8549
885-8086-2	BH24-28 2'	Total/NA	Solid	8021B	8549
885-8086-3	BH24-28 4'	Total/NA	Solid	8021B	8549
MB 885-8549/1-A	Method Blank	Total/NA	Solid	8021B	8549
LCS 885-8549/3-A	Lab Control Sample	Total/NA	Solid	8021B	8549

Analysis Batch: 8846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-4	BH24-28 6'	Total/NA	Solid	8015M/D	8569
MB 885-8569/1-A	Method Blank	Total/NA	Solid	8015M/D	8569
LCS 885-8569/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8569
885-8086-4 MS	BH24-28 6'	Total/NA	Solid	8015M/D	8569
885-8086-4 MSD	BH24-28 6'	Total/NA	Solid	8015M/D	8569

Analysis Batch: 8979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-4	BH24-28 6'	Total/NA	Solid	8021B	8569
MB 885-8569/1-A	Method Blank	Total/NA	Solid	8021B	8569
LCS 885-8569/3-A	Lab Control Sample	Total/NA	Solid	8021B	8569

GC Semi VOA

Prep Batch: 8606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-1	BH24-28 0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

GC Semi VOA (Continued)

Prep Batch: 8606 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-8606/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8606/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8086-1 MS	BH24-28 0'	Total/NA	Solid	SHAKE	
885-8086-1 MSD	BH24-28 0'	Total/NA	Solid	SHAKE	

Prep Batch: 8624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-2	BH24-28 2'	Total/NA	Solid	SHAKE	
885-8086-3	BH24-28 4'	Total/NA	Solid	SHAKE	
885-8086-4	BH24-28 6'	Total/NA	Solid	SHAKE	
MB 885-8624/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8624/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 8751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-1	BH24-28 0'	Total/NA	Solid	8015M/D	8606
885-8086-2	BH24-28 2'	Total/NA	Solid	8015M/D	8624
885-8086-3	BH24-28 4'	Total/NA	Solid	8015M/D	8624
885-8086-4	BH24-28 6'	Total/NA	Solid	8015M/D	8624
MB 885-8606/1-A	Method Blank	Total/NA	Solid	8015M/D	8606
MB 885-8624/1-A	Method Blank	Total/NA	Solid	8015M/D	8624
LCS 885-8606/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8606
LCS 885-8624/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8624
885-8086-1 MS	BH24-28 0'	Total/NA	Solid	8015M/D	8606
885-8086-1 MSD	BH24-28 0'	Total/NA	Solid	8015M/D	8606

HPLC/IC

Prep Batch: 8628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-1	BH24-28 0'	Total/NA	Solid	300_Prep	
MB 885-8628/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8628/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 8642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-2	BH24-28 2'	Total/NA	Solid	300_Prep	
885-8086-3	BH24-28 4'	Total/NA	Solid	300_Prep	
885-8086-4	BH24-28 6'	Total/NA	Solid	300_Prep	
MB 885-8642/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8642/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-8086-2 MS	BH24-28 2'	Total/NA	Solid	300_Prep	
885-8086-2 MSD	BH24-28 2'	Total/NA	Solid	300_Prep	

Analysis Batch: 8749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-2	BH24-28 2'	Total/NA	Solid	300.0	8642
885-8086-3	BH24-28 4'	Total/NA	Solid	300.0	8642
885-8086-4	BH24-28 6'	Total/NA	Solid	300.0	8642
MB 885-8628/1-A	Method Blank	Total/NA	Solid	300.0	8628
MB 885-8642/1-A	Method Blank	Total/NA	Solid	300.0	8642

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8086-1

HPLC/IC (Continued)

Analysis Batch: 8749 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-8749/101	Method Blank	Total/NA	Solid	300.0	
LCS 885-8628/2-A	Lab Control Sample	Total/NA	Solid	300.0	8628
LCS 885-8642/2-A	Lab Control Sample	Total/NA	Solid	300.0	8642
MRL 885-8749/100	Lab Control Sample	Total/NA	Solid	300.0	
885-8086-2 MS	BH24-28 2'	Total/NA	Solid	300.0	8642
885-8086-2 MSD	BH24-28 2'	Total/NA	Solid	300.0	8642

Analysis Batch: 8813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8086-1	BH24-28 0'	Total/NA	Solid	300.0	8628

Lab Chronicle

Client: Vertex
Job ID: 885-8086-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-28 0'
Lab Sample ID: 885-8086-1
Date Collected: 07/13/24 09:00
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8549	JP	EET ALB	07/17/24 09:20
Total/NA	Analysis	8015M/D		1	8761	JP	EET ALB	07/18/24 22:11
Total/NA	Prep	5030C			8549	JP	EET ALB	07/17/24 09:20
Total/NA	Analysis	8021B		1	8763	JP	EET ALB	07/18/24 22:11
Total/NA	Prep	SHAKE			8606	DH	EET ALB	07/17/24 16:31
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 01:40
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		100	8813	RC	EET ALB	07/19/24 07:42

Client Sample ID: BH24-28 2'
Lab Sample ID: 885-8086-2
Date Collected: 07/13/24 09:10
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8549	JP	EET ALB	07/17/24 09:20
Total/NA	Analysis	8015M/D		1	8761	JP	EET ALB	07/18/24 22:35
Total/NA	Prep	5030C			8549	JP	EET ALB	07/17/24 09:20
Total/NA	Analysis	8021B		1	8763	JP	EET ALB	07/18/24 22:35
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 21:12
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 16:27

Client Sample ID: BH24-28 4'
Lab Sample ID: 885-8086-3
Date Collected: 07/13/24 09:20
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8549	JP	EET ALB	07/17/24 09:20
Total/NA	Analysis	8015M/D		1	8761	JP	EET ALB	07/18/24 23:22
Total/NA	Prep	5030C			8549	JP	EET ALB	07/17/24 09:20
Total/NA	Analysis	8021B		1	8763	JP	EET ALB	07/18/24 23:22
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 21:23
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 17:04

Client Sample ID: BH24-28 6'
Lab Sample ID: 885-8086-4
Date Collected: 07/13/24 09:30
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 13:46

Lab Chronicle

Client: Vertex
Job ID: 885-8086-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-28 6'
Lab Sample ID: 885-8086-4

Date Collected: 07/13/24 09:30
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 14:32
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 21:35
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 17:16

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8086-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 0.8 +0 = 0.8 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-8086 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.13.24	9:00	Soil	BH24-28 30' (for sample bottle - time 7/17/24)	4oz Jar	ICE	1	x	x					x			
7.13.24	9:10	Soil	BH24-28 2'	4oz Jar	ICE	2	x	x					x			
7.13.24	9:20	Soil	BH24-28 4'	4oz Jar	ICE	3	x	x					x			
7.13.24	9:30	Soil	BH24-28 6'	4oz Jar	ICE	4	x	x					x			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7.16.24	0700	John Rewis			7/16/24	0700
7/16/24	1910			Courier	7/17/24	7:10

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8086-1

Login Number: 8086 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/24/2024 3:18:48 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8087-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/24/2024 3:18:48 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Released to Imaging: 2/19/2025 2:59:10 PM

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8087-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 28
QC Association Summary 35
Lab Chronicle 41
Certification Summary 48
Chain of Custody 49
Receipt Checklists 51

Definitions/Glossary

Client: Vertex Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8087-1
Project: Dawson Creek State #2

Job ID: 885-8087-1 Eurofins Albuquerque

Job Narrative
885-8087-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/17/2024 7:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-21 0'

Date Collected: 07/12/24 08:55
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 11:22	07/19/24 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/17/24 11:22*	*07/19/24 14:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/22/24 14:54	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 11:22	07/22/24 14:54	1
Toluene	ND		0.049		mg/Kg		07/17/24 11:22	07/22/24 14:54	1
Xylenes, Total	ND		0.098		mg/Kg		07/17/24 11:22	07/22/24 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 11:22*	*07/22/24 14:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/18/24 08:11	07/19/24 21:46	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/18/24 08:11	07/19/24 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*07/18/24 08:11*	*07/19/24 21:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		60		mg/Kg		07/18/24 09:40	07/18/24 17:29	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-21 2'

Date Collected: 07/12/24 09:00
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/17/24 11:22	07/19/24 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/17/24 11:22*	*07/19/24 15:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/22/24 16:00	1
Ethylbenzene	ND		0.048		mg/Kg		07/17/24 11:22	07/22/24 16:00	1
Toluene	ND		0.048		mg/Kg		07/17/24 11:22	07/22/24 16:00	1
Xylenes, Total	ND		0.097		mg/Kg		07/17/24 11:22	07/22/24 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/17/24 11:22*	*07/22/24 16:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/18/24 08:11	07/19/24 21:57	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/18/24 08:11	07/19/24 21:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*07/18/24 08:11*	*07/19/24 21:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 09:40	07/18/24 17:41	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-21 4'

Date Collected: 07/12/24 09:05
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/17/24 11:22	07/19/24 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/17/24 11:22*	*07/19/24 16:19*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/17/24 11:22	07/22/24 16:22	1
Ethylbenzene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 16:22	1
Toluene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 16:22	1
Xylenes, Total	ND		0.094		mg/Kg		07/17/24 11:22	07/22/24 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/17/24 11:22*	*07/22/24 16:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/18/24 08:11	07/19/24 22:08	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 08:11	07/19/24 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*07/18/24 08:11*	*07/19/24 22:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**97**		60		mg/Kg		07/18/24 09:40	07/18/24 17:53	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-22 0'

Date Collected: 07/12/24 09:10
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/17/24 11:22	07/19/24 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/17/24 11:22*	*07/19/24 16:41*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/22/24 16:43	1
Ethylbenzene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 16:43	1
Toluene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 16:43	1
Xylenes, Total	ND		0.095		mg/Kg		07/17/24 11:22	07/22/24 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/17/24 11:22*	*07/22/24 16:43*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/18/24 08:11	07/19/24 22:19	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/18/24 08:11	07/19/24 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/18/24 08:11*	*07/19/24 22:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 09:40	07/18/24 18:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-22 2'

Date Collected: 07/12/24 09:15
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 11:22	07/19/24 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/17/24 11:22*	*07/19/24 17:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 11:22	07/22/24 17:05	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 11:22	07/22/24 17:05	1
Toluene	ND		0.049		mg/Kg		07/17/24 11:22	07/22/24 17:05	1
Xylenes, Total	ND		0.099		mg/Kg		07/17/24 11:22	07/22/24 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/17/24 11:22*	*07/22/24 17:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/18/24 08:11	07/19/24 22:30	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/19/24 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/18/24 08:11*	*07/19/24 22:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 09:40	07/18/24 18:43	20

Client Sample Results

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-22 4'
Lab Sample ID: 885-8087-6
Date Collected: 07/12/24 09:20
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/17/24 11:22	07/19/24 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/17/24 11:22*	*07/19/24 17:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/17/24 11:22	07/22/24 17:27	1
Ethylbenzene	ND		0.046		mg/Kg		07/17/24 11:22	07/22/24 17:27	1
Toluene	ND		0.046		mg/Kg		07/17/24 11:22	07/22/24 17:27	1
Xylenes, Total	ND		0.092		mg/Kg		07/17/24 11:22	07/22/24 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/17/24 11:22*	*07/22/24 17:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 08:11	07/19/24 22:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 08:11	07/19/24 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/18/24 08:11*	*07/19/24 22:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 09:40	07/18/24 18:55	20

Client Sample Results

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-23 0'
Lab Sample ID: 885-8087-7
Date Collected: 07/12/24 09:25
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/17/24 11:22	07/19/24 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/17/24 11:22*	*07/19/24 17:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/22/24 17:49	1
Ethylbenzene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 17:49	1
Toluene	ND		0.047		mg/Kg		07/17/24 11:22	07/22/24 17:49	1
Xylenes, Total	ND		0.095		mg/Kg		07/17/24 11:22	07/22/24 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 11:22*	*07/22/24 17:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/18/24 08:11	07/19/24 23:04	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/18/24 08:11	07/19/24 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/18/24 08:11*	*07/19/24 23:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		07/18/24 09:40	07/18/24 19:07	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-23 2'

Date Collected: 07/12/24 09:30
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 11:22	07/19/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/17/24 11:22*	*07/19/24 18:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 11:22	07/22/24 18:32	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 11:22	07/22/24 18:32	1
Toluene	ND		0.049		mg/Kg		07/17/24 11:22	07/22/24 18:32	1
Xylenes, Total	ND		0.098		mg/Kg		07/17/24 11:22	07/22/24 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/17/24 11:22*	*07/22/24 18:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/18/24 08:11	07/19/24 23:15	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/18/24 08:11	07/19/24 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*07/18/24 08:11*	*07/19/24 23:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 08:22	07/18/24 13:34	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-23 4'

Date Collected: 07/12/24 09:35
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 11:22	07/19/24 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/17/24 11:22*	*07/19/24 18:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 11:22	07/22/24 18:54	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 11:22	07/22/24 18:54	1
Toluene	ND		0.050		mg/Kg		07/17/24 11:22	07/22/24 18:54	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 11:22	07/22/24 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 11:22*	*07/22/24 18:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/18/24 08:11	07/19/24 23:26	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/19/24 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/18/24 08:11*	*07/19/24 23:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		07/18/24 08:22	07/18/24 13:46	20

Client Sample Results

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-24 0'
Lab Sample ID: 885-8087-10
Date Collected: 07/12/24 09:40
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 11:22	07/19/24 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/17/24 11:22*	*07/19/24 19:15*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/19/24 19:15	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 19:15	1
Toluene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 19:15	1
Xylenes, Total	ND		0.098		mg/Kg		07/17/24 11:22	07/19/24 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 11:22*	*07/19/24 19:15*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/18/24 08:11	07/19/24 23:37	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/18/24 08:11	07/19/24 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/18/24 08:11*	*07/19/24 23:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		60		mg/Kg		07/18/24 08:22	07/18/24 13:59	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-24 2'

Date Collected: 07/12/24 09:45
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-11

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 11:22	07/19/24 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/17/24 11:22*	*07/19/24 19:37*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/19/24 19:37	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 19:37	1
Toluene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 19:37	1
Xylenes, Total	ND		0.098		mg/Kg		07/17/24 11:22	07/19/24 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 11:22*	*07/19/24 19:37*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 08:11	07/19/24 23:48	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 08:11	07/19/24 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/18/24 08:11*	*07/19/24 23:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 08:22	07/18/24 14:11	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-24 4'

Date Collected: 07/12/24 09:50
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-12

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 11:22	07/19/24 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/17/24 11:22*	*07/19/24 19:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 11:22	07/19/24 19:58	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 19:58	1
Toluene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 19:58	1
Xylenes, Total	ND		0.099		mg/Kg		07/17/24 11:22	07/19/24 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/17/24 11:22*	*07/19/24 19:58*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/18/24 08:11	07/19/24 23:59	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/19/24 23:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/18/24 08:11*	*07/19/24 23:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		60		mg/Kg		07/18/24 08:22	07/18/24 14:23	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-25 0'

Date Collected: 07/12/24 10:00
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/17/24 11:22	07/19/24 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/17/24 11:22*	*07/19/24 20:20*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/19/24 20:20	1
Ethylbenzene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 20:20	1
Toluene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 20:20	1
Xylenes, Total	ND		0.097		mg/Kg		07/17/24 11:22	07/19/24 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/17/24 11:22*	*07/19/24 20:20*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/18/24 08:11	07/20/24 00:10	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 08:11	07/20/24 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*118*		*62 - 134*	*07/18/24 08:11*	*07/20/24 00:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 08:22	07/18/24 14:36	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-25 2'

Date Collected: 07/12/24 10:05
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-14

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/17/24 11:22	07/19/24 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/17/24 11:22*	*07/19/24 20:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/19/24 20:42	1
Ethylbenzene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 20:42	1
Toluene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 20:42	1
Xylenes, Total	ND		0.097		mg/Kg		07/17/24 11:22	07/19/24 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 11:22*	*07/19/24 20:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/18/24 08:11	07/20/24 00:21	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/18/24 08:11	07/20/24 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/18/24 08:11*	*07/20/24 00:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 08:22	07/18/24 14:48	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-25 4'

Date Collected: 07/12/24 09:05
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-15

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 11:22	07/19/24 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/17/24 11:22*	*07/19/24 21:04*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 11:22	07/19/24 21:04	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 21:04	1
Toluene	ND		0.049		mg/Kg		07/17/24 11:22	07/19/24 21:04	1
Xylenes, Total	ND		0.098		mg/Kg		07/17/24 11:22	07/19/24 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 11:22*	*07/19/24 21:04*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/18/24 08:11	07/20/24 00:33	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/18/24 08:11	07/20/24 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*121*		*62 - 134*	*07/18/24 08:11*	*07/20/24 00:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 08:22	07/18/24 15:00	20

Client Sample Results

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-26 0'
Lab Sample ID: 885-8087-16
Date Collected: 07/12/24 13:00
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/17/24 11:22	07/19/24 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/17/24 11:22*	*07/19/24 21:26*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/17/24 11:22	07/19/24 21:26	1
Ethylbenzene	ND		0.046		mg/Kg		07/17/24 11:22	07/19/24 21:26	1
Toluene	ND		0.046		mg/Kg		07/17/24 11:22	07/19/24 21:26	1
Xylenes, Total	ND		0.092		mg/Kg		07/17/24 11:22	07/19/24 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 11:22*	*07/19/24 21:26*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/18/24 08:11	07/20/24 00:44	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/20/24 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/18/24 08:11*	*07/20/24 00:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		07/18/24 08:22	07/18/24 15:13	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-26 2'

Date Collected: 07/12/24 13:05
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-17

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/17/24 11:22	07/19/24 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*07/17/24 11:22*	*07/19/24 21:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/17/24 11:22	07/19/24 21:47	1
Ethylbenzene	ND		0.047		mg/Kg		07/17/24 11:22	07/19/24 21:47	1
Toluene	ND		0.047		mg/Kg		07/17/24 11:22	07/19/24 21:47	1
Xylenes, Total	ND		0.093		mg/Kg		07/17/24 11:22	07/19/24 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/17/24 11:22*	*07/19/24 21:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/18/24 08:11	07/20/24 00:55	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 08:11	07/20/24 00:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/18/24 08:11*	*07/20/24 00:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/18/24 08:22	07/18/24 15:25	20

Client Sample Results

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-26 4'
Lab Sample ID: 885-8087-18
Date Collected: 07/12/24 13:10
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/17/24 11:22	07/19/24 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/17/24 11:22*	*07/19/24 22:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/19/24 22:09	1
Ethylbenzene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 22:09	1
Toluene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 22:09	1
Xylenes, Total	ND		0.096		mg/Kg		07/17/24 11:22	07/19/24 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 11:22*	*07/19/24 22:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/18/24 09:54	07/18/24 14:05	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 09:54	07/18/24 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*07/18/24 09:54*	*07/18/24 14:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 09:13	20

Client Sample Results

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-27 0'
Lab Sample ID: 885-8087-19
Date Collected: 07/12/24 13:15
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/17/24 11:22	07/19/24 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/17/24 11:22*	*07/19/24 22:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 11:22	07/19/24 22:31	1
Ethylbenzene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 22:31	1
Toluene	ND		0.048		mg/Kg		07/17/24 11:22	07/19/24 22:31	1
Xylenes, Total	ND		0.096		mg/Kg		07/17/24 11:22	07/19/24 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 11:22*	*07/19/24 22:31*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/18/24 09:54	07/18/24 14:16	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/18/24 09:54	07/18/24 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*07/18/24 09:54*	*07/18/24 14:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 09:26	20

Client Sample Results

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-27 2'
Lab Sample ID: 885-8087-20
Date Collected: 07/12/24 13:20
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/18/24 08:44	07/20/24 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/18/24 08:44*	*07/20/24 13:24*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/18/24 08:44	07/20/24 13:24	1
Ethylbenzene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 13:24	1
Toluene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 13:24	1
Xylenes, Total	ND		0.099		mg/Kg		07/18/24 08:44	07/20/24 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/18/24 08:44*	*07/20/24 13:24*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/18/24 14:33	07/20/24 02:35	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 14:33	07/20/24 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/18/24 14:33*	*07/20/24 02:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 09:39	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-27 4'

Date Collected: 07/12/24 13:25
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-21

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/18/24 08:44	07/20/24 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*07/18/24 08:44*	*07/20/24 14:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/18/24 08:44	07/20/24 14:34	1
Ethylbenzene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 14:34	1
Toluene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 14:34	1
Xylenes, Total	ND		0.10		mg/Kg		07/18/24 08:44	07/20/24 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/18/24 08:44*	*07/20/24 14:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/18/24 14:33	07/20/24 02:46	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 14:33	07/20/24 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*115*		*62 - 134*	*07/18/24 14:33*	*07/20/24 02:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 09:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Client Sample ID: BH24-16 6'

Date Collected: 07/12/24 13:30
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8087-22

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/18/24 08:44	07/20/24 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/18/24 08:44*	*07/20/24 15:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/18/24 08:44	07/20/24 15:45	1
Ethylbenzene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 15:45	1
Toluene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 15:45	1
Xylenes, Total	ND		0.099		mg/Kg		07/18/24 08:44	07/20/24 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*07/18/24 08:44*	*07/20/24 15:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/18/24 14:33	07/20/24 02:57	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 14:33	07/20/24 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*120*		*62 - 134*	*07/18/24 14:33*	*07/20/24 02:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**860**		60		mg/Kg		07/19/24 07:01	07/19/24 10:05	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8569/1-A
Matrix: Solid
Analysis Batch: 8846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8569

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 11:22	07/19/24 13:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*07/17/24 11:22*	*07/19/24 13:24*	*1*

Lab Sample ID: LCS 885-8569/2-A
Matrix: Solid
Analysis Batch: 8846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8569

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.0		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*197*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8633/1-A
Matrix: Solid
Analysis Batch: 8807

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8633

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/18/24 08:44	07/20/24 13:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/18/24 08:44*	*07/20/24 13:00*	*1*

Lab Sample ID: LCS 885-8633/2-A
Matrix: Solid
Analysis Batch: 8807

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8633

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.2		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*35 - 166*

Lab Sample ID: 885-8087-20 MS
Matrix: Solid
Analysis Batch: 8807

Client Sample ID: BH24-27 2'
Prep Type: Total/NA
Prep Batch: 8633

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.8	21.0		mg/Kg		85	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-8087-20 MSD
Matrix: Solid
Analysis Batch: 8807

Client Sample ID: BH24-27 2'
Prep Type: Total/NA
Prep Batch: 8633

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.8	21.4		mg/Kg		86	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*213*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8569/1-A
Matrix: Solid
Analysis Batch: 8979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8569

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 11:22	07/22/24 14:11	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 11:22	07/22/24 14:11	1
Toluene	ND		0.050		mg/Kg		07/17/24 11:22	07/22/24 14:11	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 11:22	07/22/24 14:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 11:22*	*07/22/24 14:11*	*1*

Lab Sample ID: LCS 885-8569/3-A
Matrix: Solid
Analysis Batch: 8979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8569

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.851		mg/Kg		85	70 - 130		
Ethylbenzene			1.00	0.870		mg/Kg		87	70 - 130		
m,p-Xylene			2.00	1.73		mg/Kg		86	70 - 130		
o-Xylene			1.00	0.868		mg/Kg		87	70 - 130		
Toluene			1.00	0.858		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

Lab Sample ID: 885-8087-1 MS
Matrix: Solid
Analysis Batch: 8979

Client Sample ID: BH24-21 0'
Prep Type: Total/NA
Prep Batch: 8569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.971	0.811		mg/Kg		83	70 - 130		
Ethylbenzene	ND		0.971	0.820		mg/Kg		84	70 - 130		
m,p-Xylene	ND		1.94	1.63		mg/Kg		84	70 - 130		
o-Xylene	ND		0.971	0.827		mg/Kg		85	70 - 130		
Toluene	ND		0.971	0.810		mg/Kg		83	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: 885-8087-1 MSD
Matrix: Solid
Analysis Batch: 8979

Client Sample ID: BH24-21 0'
Prep Type: Total/NA
Prep Batch: 8569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.973	0.799		mg/Kg		82	70 - 130	1	20
Ethylbenzene	ND		0.973	0.820		mg/Kg		84	70 - 130	0	20
m,p-Xylene	ND		1.95	1.62		mg/Kg		83	70 - 130	1	20
o-Xylene	ND		0.973	0.819		mg/Kg		84	70 - 130	1	20
Toluene	ND		0.973	0.804		mg/Kg		83	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: MB 885-8633/1-A
Matrix: Solid
Analysis Batch: 8808

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8633

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/18/24 08:44	07/20/24 13:00	1
Ethylbenzene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 13:00	1
Toluene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 13:00	1
Xylenes, Total	ND		0.10		mg/Kg		07/18/24 08:44	07/20/24 13:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/18/24 08:44*	*07/20/24 13:00*	*1*

Lab Sample ID: LCS 885-8633/3-A
Matrix: Solid
Analysis Batch: 8808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8633

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.812		mg/Kg		81	70 - 130		
Ethylbenzene			1.00	0.771		mg/Kg		77	70 - 130		
m,p-Xylene			2.00	1.55		mg/Kg		78	70 - 130		
o-Xylene			1.00	0.758		mg/Kg		76	70 - 130		
Toluene			1.00	0.769		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*

Lab Sample ID: 885-8087-21 MS
Matrix: Solid
Analysis Batch: 8808

Client Sample ID: BH24-27 4'
Prep Type: Total/NA
Prep Batch: 8633

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.999	0.870		mg/Kg		87	70 - 130		
Ethylbenzene	ND		0.999	0.849		mg/Kg		85	70 - 130		
m,p-Xylene	ND		2.00	1.71		mg/Kg		84	70 - 130		
o-Xylene	ND		0.999	0.839		mg/Kg		84	70 - 130		
Toluene	ND		0.999	0.846		mg/Kg		85	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-8087-21 MS
Matrix: Solid
Analysis Batch: 8808

Client Sample ID: BH24-27 4'
Prep Type: Total/NA
Prep Batch: 8633

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*

Lab Sample ID: 885-8087-21 MSD
Matrix: Solid
Analysis Batch: 8808

Client Sample ID: BH24-27 4'
Prep Type: Total/NA
Prep Batch: 8633

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.993	0.919		mg/Kg		93	70 - 130	5	20
Ethylbenzene	ND		0.993	0.883		mg/Kg		89	70 - 130	4	20
m,p-Xylene	ND		1.99	1.78		mg/Kg		88	70 - 130	4	20
o-Xylene	ND		0.993	0.860		mg/Kg		87	70 - 130	2	20
Toluene	ND		0.993	0.886		mg/Kg		89	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8624/1-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 08:11	07/19/24 10:31	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 08:11	07/19/24 10:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/18/24 08:11*	*07/19/24 10:31*	*1*

Lab Sample ID: LCS 885-8624/2-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8624

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	44.7		mg/Kg		89	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Lab Sample ID: 885-8087-17 MS
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: BH24-26 2'
Prep Type: Total/NA
Prep Batch: 8624

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		48.9	52.5		mg/Kg		107	44 - 136		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 885-8087-17 MS
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: BH24-26 2'
Prep Type: Total/NA
Prep Batch: 8624

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*

Lab Sample ID: 885-8087-17 MSD
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: BH24-26 2'
Prep Type: Total/NA
Prep Batch: 8624

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.5	47.5		mg/Kg		100	44 - 136	10	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*

Lab Sample ID: MB 885-8644/1-A
Matrix: Solid
Analysis Batch: 8655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8644

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 09:54	07/18/24 12:49	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 09:54	07/18/24 12:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/18/24 09:54*	*07/18/24 12:49*	*1*

Lab Sample ID: LCS 885-8644/2-A
Matrix: Solid
Analysis Batch: 8655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8644

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	43.8		mg/Kg		88	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Lab Sample ID: 885-8087-19 MS
Matrix: Solid
Analysis Batch: 8655

Client Sample ID: BH24-27 0'
Prep Type: Total/NA
Prep Batch: 8644

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		47.2	43.6		mg/Kg		92	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 885-8087-19 MSD
Matrix: Solid
Analysis Batch: 8655

Client Sample ID: BH24-27 0'
Prep Type: Total/NA
Prep Batch: 8644

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.9	57.9		mg/Kg		116	44 - 136	28	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*123*		*62 - 134*

Lab Sample ID: MB 885-8702/1-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8702

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 14:33	07/20/24 02:13	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 14:33	07/20/24 02:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*115*		*62 - 134*	*07/18/24 14:33*	*07/20/24 02:13*	*1*

Lab Sample ID: LCS 885-8702/2-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8702

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	55.1		mg/Kg		110	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-8628/1-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/18/24 08:22	07/18/24 09:20	1

Lab Sample ID: LCS 885-8628/2-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.3		mg/Kg		94	90 - 110		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-8642/1-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8642

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/18/24 09:40	07/18/24 16:02	1

Lab Sample ID: LCS 885-8642/2-A
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8642

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.4		mg/Kg		95	90 - 110		

Lab Sample ID: MB 885-8735/1-A
Matrix: Solid
Analysis Batch: 8833

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8735

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/19/24 07:01	07/19/24 07:49	1

Lab Sample ID: LCS 885-8735/2-A
Matrix: Solid
Analysis Batch: 8833

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8735

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	31.2		mg/Kg		104	90 - 110		

Lab Sample ID: MB 885-8749/101
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			07/18/24 22:37	1

Lab Sample ID: MRL 885-8749/100
Matrix: Solid
Analysis Batch: 8749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.523		mg/L		105	50 - 150		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

GC VOA

Prep Batch: 8569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-1	BH24-21 0'	Total/NA	Solid	5030C	
885-8087-2	BH24-21 2'	Total/NA	Solid	5030C	
885-8087-3	BH24-21 4'	Total/NA	Solid	5030C	
885-8087-4	BH24-22 0'	Total/NA	Solid	5030C	
885-8087-5	BH24-22 2'	Total/NA	Solid	5030C	
885-8087-6	BH24-22 4'	Total/NA	Solid	5030C	
885-8087-7	BH24-23 0'	Total/NA	Solid	5030C	
885-8087-8	BH24-23 2'	Total/NA	Solid	5030C	
885-8087-9	BH24-23 4'	Total/NA	Solid	5030C	
885-8087-10	BH24-24 0'	Total/NA	Solid	5030C	
885-8087-11	BH24-24 2'	Total/NA	Solid	5030C	
885-8087-12	BH24-24 4'	Total/NA	Solid	5030C	
885-8087-13	BH24-25 0'	Total/NA	Solid	5030C	
885-8087-14	BH24-25 2'	Total/NA	Solid	5030C	
885-8087-15	BH24-25 4'	Total/NA	Solid	5030C	
885-8087-16	BH24-26 0'	Total/NA	Solid	5030C	
885-8087-17	BH24-26 2'	Total/NA	Solid	5030C	
885-8087-18	BH24-26 4'	Total/NA	Solid	5030C	
885-8087-19	BH24-27 0'	Total/NA	Solid	5030C	
MB 885-8569/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8569/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8569/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8087-1 MS	BH24-21 0'	Total/NA	Solid	5030C	
885-8087-1 MSD	BH24-21 0'	Total/NA	Solid	5030C	

Prep Batch: 8633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-20	BH24-27 2'	Total/NA	Solid	5030C	
885-8087-21	BH24-27 4'	Total/NA	Solid	5030C	
885-8087-22	BH24-16 6'	Total/NA	Solid	5030C	
MB 885-8633/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8633/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8633/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8087-20 MS	BH24-27 2'	Total/NA	Solid	5030C	
885-8087-20 MSD	BH24-27 2'	Total/NA	Solid	5030C	
885-8087-21 MS	BH24-27 4'	Total/NA	Solid	5030C	
885-8087-21 MSD	BH24-27 4'	Total/NA	Solid	5030C	

Analysis Batch: 8807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-20	BH24-27 2'	Total/NA	Solid	8015M/D	8633
885-8087-21	BH24-27 4'	Total/NA	Solid	8015M/D	8633
885-8087-22	BH24-16 6'	Total/NA	Solid	8015M/D	8633
MB 885-8633/1-A	Method Blank	Total/NA	Solid	8015M/D	8633
LCS 885-8633/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8633
885-8087-20 MS	BH24-27 2'	Total/NA	Solid	8015M/D	8633
885-8087-20 MSD	BH24-27 2'	Total/NA	Solid	8015M/D	8633

Analysis Batch: 8808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-20	BH24-27 2'	Total/NA	Solid	8021B	8633

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

GC VOA (Continued)

Analysis Batch: 8808 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-21	BH24-27 4'	Total/NA	Solid	8021B	8633
885-8087-22	BH24-16 6'	Total/NA	Solid	8021B	8633
MB 885-8633/1-A	Method Blank	Total/NA	Solid	8021B	8633
LCS 885-8633/3-A	Lab Control Sample	Total/NA	Solid	8021B	8633
885-8087-21 MS	BH24-27 4'	Total/NA	Solid	8021B	8633
885-8087-21 MSD	BH24-27 4'	Total/NA	Solid	8021B	8633

Analysis Batch: 8846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-1	BH24-21 0'	Total/NA	Solid	8015M/D	8569
885-8087-2	BH24-21 2'	Total/NA	Solid	8015M/D	8569
885-8087-3	BH24-21 4'	Total/NA	Solid	8015M/D	8569
885-8087-4	BH24-22 0'	Total/NA	Solid	8015M/D	8569
885-8087-5	BH24-22 2'	Total/NA	Solid	8015M/D	8569
885-8087-6	BH24-22 4'	Total/NA	Solid	8015M/D	8569
885-8087-7	BH24-23 0'	Total/NA	Solid	8015M/D	8569
885-8087-8	BH24-23 2'	Total/NA	Solid	8015M/D	8569
885-8087-9	BH24-23 4'	Total/NA	Solid	8015M/D	8569
885-8087-10	BH24-24 0'	Total/NA	Solid	8015M/D	8569
885-8087-11	BH24-24 2'	Total/NA	Solid	8015M/D	8569
885-8087-12	BH24-24 4'	Total/NA	Solid	8015M/D	8569
885-8087-13	BH24-25 0'	Total/NA	Solid	8015M/D	8569
885-8087-14	BH24-25 2'	Total/NA	Solid	8015M/D	8569
885-8087-15	BH24-25 4'	Total/NA	Solid	8015M/D	8569
885-8087-16	BH24-26 0'	Total/NA	Solid	8015M/D	8569
885-8087-17	BH24-26 2'	Total/NA	Solid	8015M/D	8569
885-8087-18	BH24-26 4'	Total/NA	Solid	8015M/D	8569
885-8087-19	BH24-27 0'	Total/NA	Solid	8015M/D	8569
MB 885-8569/1-A	Method Blank	Total/NA	Solid	8015M/D	8569
LCS 885-8569/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8569

Analysis Batch: 8900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-10	BH24-24 0'	Total/NA	Solid	8021B	8569
885-8087-11	BH24-24 2'	Total/NA	Solid	8021B	8569
885-8087-12	BH24-24 4'	Total/NA	Solid	8021B	8569
885-8087-13	BH24-25 0'	Total/NA	Solid	8021B	8569
885-8087-14	BH24-25 2'	Total/NA	Solid	8021B	8569
885-8087-15	BH24-25 4'	Total/NA	Solid	8021B	8569
885-8087-16	BH24-26 0'	Total/NA	Solid	8021B	8569
885-8087-17	BH24-26 2'	Total/NA	Solid	8021B	8569
885-8087-18	BH24-26 4'	Total/NA	Solid	8021B	8569
885-8087-19	BH24-27 0'	Total/NA	Solid	8021B	8569

Analysis Batch: 8979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-1	BH24-21 0'	Total/NA	Solid	8021B	8569
885-8087-2	BH24-21 2'	Total/NA	Solid	8021B	8569
885-8087-3	BH24-21 4'	Total/NA	Solid	8021B	8569
885-8087-4	BH24-22 0'	Total/NA	Solid	8021B	8569
885-8087-5	BH24-22 2'	Total/NA	Solid	8021B	8569

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

GC VOA (Continued)

Analysis Batch: 8979 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-6	BH24-22 4'	Total/NA	Solid	8021B	8569
885-8087-7	BH24-23 0'	Total/NA	Solid	8021B	8569
885-8087-8	BH24-23 2'	Total/NA	Solid	8021B	8569
885-8087-9	BH24-23 4'	Total/NA	Solid	8021B	8569
MB 885-8569/1-A	Method Blank	Total/NA	Solid	8021B	8569
LCS 885-8569/3-A	Lab Control Sample	Total/NA	Solid	8021B	8569
885-8087-1 MS	BH24-21 0'	Total/NA	Solid	8021B	8569
885-8087-1 MSD	BH24-21 0'	Total/NA	Solid	8021B	8569

GC Semi VOA

Prep Batch: 8624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-1	BH24-21 0'	Total/NA	Solid	SHAKE	
885-8087-2	BH24-21 2'	Total/NA	Solid	SHAKE	
885-8087-3	BH24-21 4'	Total/NA	Solid	SHAKE	
885-8087-4	BH24-22 0'	Total/NA	Solid	SHAKE	
885-8087-5	BH24-22 2'	Total/NA	Solid	SHAKE	
885-8087-6	BH24-22 4'	Total/NA	Solid	SHAKE	
885-8087-7	BH24-23 0'	Total/NA	Solid	SHAKE	
885-8087-8	BH24-23 2'	Total/NA	Solid	SHAKE	
885-8087-9	BH24-23 4'	Total/NA	Solid	SHAKE	
885-8087-10	BH24-24 0'	Total/NA	Solid	SHAKE	
885-8087-11	BH24-24 2'	Total/NA	Solid	SHAKE	
885-8087-12	BH24-24 4'	Total/NA	Solid	SHAKE	
885-8087-13	BH24-25 0'	Total/NA	Solid	SHAKE	
885-8087-14	BH24-25 2'	Total/NA	Solid	SHAKE	
885-8087-15	BH24-25 4'	Total/NA	Solid	SHAKE	
885-8087-16	BH24-26 0'	Total/NA	Solid	SHAKE	
885-8087-17	BH24-26 2'	Total/NA	Solid	SHAKE	
MB 885-8624/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8624/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8087-17 MS	BH24-26 2'	Total/NA	Solid	SHAKE	
885-8087-17 MSD	BH24-26 2'	Total/NA	Solid	SHAKE	

Prep Batch: 8644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-18	BH24-26 4'	Total/NA	Solid	SHAKE	
885-8087-19	BH24-27 0'	Total/NA	Solid	SHAKE	
MB 885-8644/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8644/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8087-19 MS	BH24-27 0'	Total/NA	Solid	SHAKE	
885-8087-19 MSD	BH24-27 0'	Total/NA	Solid	SHAKE	

Analysis Batch: 8655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-18	BH24-26 4'	Total/NA	Solid	8015M/D	8644
885-8087-19	BH24-27 0'	Total/NA	Solid	8015M/D	8644
MB 885-8644/1-A	Method Blank	Total/NA	Solid	8015M/D	8644
LCS 885-8644/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8644
885-8087-19 MS	BH24-27 0'	Total/NA	Solid	8015M/D	8644

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

GC Semi VOA (Continued)

Analysis Batch: 8655 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-19 MSD	BH24-27 0'	Total/NA	Solid	8015M/D	8644

Prep Batch: 8702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-20	BH24-27 2'	Total/NA	Solid	SHAKE	
885-8087-21	BH24-27 4'	Total/NA	Solid	SHAKE	
885-8087-22	BH24-16 6'	Total/NA	Solid	SHAKE	
MB 885-8702/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8702/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 8751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-1	BH24-21 0'	Total/NA	Solid	8015M/D	8624
885-8087-2	BH24-21 2'	Total/NA	Solid	8015M/D	8624
885-8087-3	BH24-21 4'	Total/NA	Solid	8015M/D	8624
885-8087-4	BH24-22 0'	Total/NA	Solid	8015M/D	8624
885-8087-5	BH24-22 2'	Total/NA	Solid	8015M/D	8624
885-8087-6	BH24-22 4'	Total/NA	Solid	8015M/D	8624
885-8087-7	BH24-23 0'	Total/NA	Solid	8015M/D	8624
885-8087-8	BH24-23 2'	Total/NA	Solid	8015M/D	8624
885-8087-9	BH24-23 4'	Total/NA	Solid	8015M/D	8624
885-8087-10	BH24-24 0'	Total/NA	Solid	8015M/D	8624
885-8087-11	BH24-24 2'	Total/NA	Solid	8015M/D	8624
885-8087-12	BH24-24 4'	Total/NA	Solid	8015M/D	8624
885-8087-13	BH24-25 0'	Total/NA	Solid	8015M/D	8624
885-8087-14	BH24-25 2'	Total/NA	Solid	8015M/D	8624
885-8087-15	BH24-25 4'	Total/NA	Solid	8015M/D	8624
885-8087-16	BH24-26 0'	Total/NA	Solid	8015M/D	8624
885-8087-17	BH24-26 2'	Total/NA	Solid	8015M/D	8624
885-8087-20	BH24-27 2'	Total/NA	Solid	8015M/D	8702
885-8087-21	BH24-27 4'	Total/NA	Solid	8015M/D	8702
885-8087-22	BH24-16 6'	Total/NA	Solid	8015M/D	8702
MB 885-8624/1-A	Method Blank	Total/NA	Solid	8015M/D	8624
MB 885-8702/1-A	Method Blank	Total/NA	Solid	8015M/D	8702
LCS 885-8624/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8624
LCS 885-8702/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8702
885-8087-17 MS	BH24-26 2'	Total/NA	Solid	8015M/D	8624
885-8087-17 MSD	BH24-26 2'	Total/NA	Solid	8015M/D	8624

HPLC/IC

Prep Batch: 8628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-8	BH24-23 2'	Total/NA	Solid	300_Prep	
885-8087-9	BH24-23 4'	Total/NA	Solid	300_Prep	
885-8087-10	BH24-24 0'	Total/NA	Solid	300_Prep	
885-8087-11	BH24-24 2'	Total/NA	Solid	300_Prep	
885-8087-12	BH24-24 4'	Total/NA	Solid	300_Prep	
885-8087-13	BH24-25 0'	Total/NA	Solid	300_Prep	
885-8087-14	BH24-25 2'	Total/NA	Solid	300_Prep	
885-8087-15	BH24-25 4'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

HPLC/IC (Continued)

Prep Batch: 8628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-16	BH24-26 0'	Total/NA	Solid	300_Prep	
885-8087-17	BH24-26 2'	Total/NA	Solid	300_Prep	
MB 885-8628/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8628/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 8642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-1	BH24-21 0'	Total/NA	Solid	300_Prep	
885-8087-2	BH24-21 2'	Total/NA	Solid	300_Prep	
885-8087-3	BH24-21 4'	Total/NA	Solid	300_Prep	
885-8087-4	BH24-22 0'	Total/NA	Solid	300_Prep	
885-8087-5	BH24-22 2'	Total/NA	Solid	300_Prep	
885-8087-6	BH24-22 4'	Total/NA	Solid	300_Prep	
885-8087-7	BH24-23 0'	Total/NA	Solid	300_Prep	
MB 885-8642/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8642/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 8735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-18	BH24-26 4'	Total/NA	Solid	300_Prep	
885-8087-19	BH24-27 0'	Total/NA	Solid	300_Prep	
885-8087-20	BH24-27 2'	Total/NA	Solid	300_Prep	
885-8087-21	BH24-27 4'	Total/NA	Solid	300_Prep	
885-8087-22	BH24-16 6'	Total/NA	Solid	300_Prep	
MB 885-8735/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8735/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 8749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-1	BH24-21 0'	Total/NA	Solid	300.0	8642
885-8087-2	BH24-21 2'	Total/NA	Solid	300.0	8642
885-8087-3	BH24-21 4'	Total/NA	Solid	300.0	8642
885-8087-4	BH24-22 0'	Total/NA	Solid	300.0	8642
885-8087-5	BH24-22 2'	Total/NA	Solid	300.0	8642
885-8087-6	BH24-22 4'	Total/NA	Solid	300.0	8642
885-8087-7	BH24-23 0'	Total/NA	Solid	300.0	8642
885-8087-8	BH24-23 2'	Total/NA	Solid	300.0	8628
885-8087-9	BH24-23 4'	Total/NA	Solid	300.0	8628
885-8087-10	BH24-24 0'	Total/NA	Solid	300.0	8628
885-8087-11	BH24-24 2'	Total/NA	Solid	300.0	8628
885-8087-12	BH24-24 4'	Total/NA	Solid	300.0	8628
885-8087-13	BH24-25 0'	Total/NA	Solid	300.0	8628
885-8087-14	BH24-25 2'	Total/NA	Solid	300.0	8628
885-8087-15	BH24-25 4'	Total/NA	Solid	300.0	8628
885-8087-16	BH24-26 0'	Total/NA	Solid	300.0	8628
885-8087-17	BH24-26 2'	Total/NA	Solid	300.0	8628
MB 885-8628/1-A	Method Blank	Total/NA	Solid	300.0	8628
MB 885-8642/1-A	Method Blank	Total/NA	Solid	300.0	8642
MB 885-8749/101	Method Blank	Total/NA	Solid	300.0	
LCS 885-8628/2-A	Lab Control Sample	Total/NA	Solid	300.0	8628
LCS 885-8642/2-A	Lab Control Sample	Total/NA	Solid	300.0	8642

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8087-1

HPLC/IC (Continued)

Analysis Batch: 8749 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 885-8749/100	Lab Control Sample	Total/NA	Solid	300.0	

Analysis Batch: 8833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8087-18	BH24-26 4'	Total/NA	Solid	300.0	8735
885-8087-19	BH24-27 0'	Total/NA	Solid	300.0	8735
885-8087-20	BH24-27 2'	Total/NA	Solid	300.0	8735
885-8087-21	BH24-27 4'	Total/NA	Solid	300.0	8735
885-8087-22	BH24-16 6'	Total/NA	Solid	300.0	8735
MB 885-8735/1-A	Method Blank	Total/NA	Solid	300.0	8735
LCS 885-8735/2-A	Lab Control Sample	Total/NA	Solid	300.0	8735

Lab Chronicle

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-21 0'
Lab Sample ID: 885-8087-1
Date Collected: 07/12/24 08:55
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 14:52
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 14:54
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 21:46
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 17:29

Client Sample ID: BH24-21 2'
Lab Sample ID: 885-8087-2
Date Collected: 07/12/24 09:00
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 15:58
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 16:00
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 21:57
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 17:41

Client Sample ID: BH24-21 4'
Lab Sample ID: 885-8087-3
Date Collected: 07/12/24 09:05
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 16:19
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 16:22
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 22:08
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 17:53

Client Sample ID: BH24-22 0'
Lab Sample ID: 885-8087-4
Date Collected: 07/12/24 09:10
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 16:41

Lab Chronicle

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-22 0'
Lab Sample ID: 885-8087-4
Date Collected: 07/12/24 09:10
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 16:43
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 22:19
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 18:30

Client Sample ID: BH24-22 2'
Lab Sample ID: 885-8087-5
Date Collected: 07/12/24 09:15
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 17:03
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 17:05
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 22:30
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 18:43

Client Sample ID: BH24-22 4'
Lab Sample ID: 885-8087-6
Date Collected: 07/12/24 09:20
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 17:25
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 17:27
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 22:53
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 18:55

Client Sample ID: BH24-23 0'
Lab Sample ID: 885-8087-7
Date Collected: 07/12/24 09:25
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 17:47
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 17:49

Lab Chronicle

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-23 0'
Lab Sample ID: 885-8087-7
Date Collected: 07/12/24 09:25
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 23:04
Total/NA	Prep	300_Prep			8642	EH	EET ALB	07/18/24 09:40
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 19:07

Client Sample ID: BH24-23 2'
Lab Sample ID: 885-8087-8
Date Collected: 07/12/24 09:30
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 18:09
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 18:32
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 23:15
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 13:34

Client Sample ID: BH24-23 4'
Lab Sample ID: 885-8087-9
Date Collected: 07/12/24 09:35
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 18:31
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8979	RA	EET ALB	07/22/24 18:54
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 23:26
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 13:46

Client Sample ID: BH24-24 0'
Lab Sample ID: 885-8087-10
Date Collected: 07/12/24 09:40
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 19:15
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 19:15
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 23:37

Lab Chronicle

Client: Vertex Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-24 0' Lab Sample ID: 885-8087-10

Date Collected: 07/12/24 09:40 **Matrix: Solid**
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 13:59

Client Sample ID: BH24-24 2' Lab Sample ID: 885-8087-11

Date Collected: 07/12/24 09:45 **Matrix: Solid**
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 19:37
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 19:37
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 23:48
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 14:11

Client Sample ID: BH24-24 4' Lab Sample ID: 885-8087-12

Date Collected: 07/12/24 09:50 **Matrix: Solid**
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 19:58
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 19:58
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/19/24 23:59
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 14:23

Client Sample ID: BH24-25 0' Lab Sample ID: 885-8087-13

Date Collected: 07/12/24 10:00 **Matrix: Solid**
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 20:20
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 20:20
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 00:10
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 14:36

Lab Chronicle

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-25 2'
Lab Sample ID: 885-8087-14
Date Collected: 07/12/24 10:05
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 20:42
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 20:42
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 00:21
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 14:48

Client Sample ID: BH24-25 4'
Lab Sample ID: 885-8087-15
Date Collected: 07/12/24 09:05
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 21:04
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 21:04
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 00:33
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 15:00

Client Sample ID: BH24-26 0'
Lab Sample ID: 885-8087-16
Date Collected: 07/12/24 13:00
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 21:26
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 21:26
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 00:44
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 15:13

Client Sample ID: BH24-26 2'
Lab Sample ID: 885-8087-17
Date Collected: 07/12/24 13:05
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 21:47

Lab Chronicle

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-26 2'
Lab Sample ID: 885-8087-17
Date Collected: 07/12/24 13:05
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 21:47
Total/NA	Prep	SHAKE			8624	KR	EET ALB	07/18/24 08:11
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 00:55
Total/NA	Prep	300_Prep			8628	RC	EET ALB	07/18/24 08:22
Total/NA	Analysis	300.0		20	8749	JT	EET ALB	07/18/24 15:25

Client Sample ID: BH24-26 4'
Lab Sample ID: 885-8087-18
Date Collected: 07/12/24 13:10
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 22:09
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 22:09
Total/NA	Prep	SHAKE			8644	KR	EET ALB	07/18/24 09:54
Total/NA	Analysis	8015M/D		1	8655	KR	EET ALB	07/18/24 14:05
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 09:13

Client Sample ID: BH24-27 0'
Lab Sample ID: 885-8087-19
Date Collected: 07/12/24 13:15
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8015M/D		1	8846	AT	EET ALB	07/19/24 22:31
Total/NA	Prep	5030C			8569	JP	EET ALB	07/17/24 11:22
Total/NA	Analysis	8021B		1	8900	AT	EET ALB	07/19/24 22:31
Total/NA	Prep	SHAKE			8644	KR	EET ALB	07/18/24 09:54
Total/NA	Analysis	8015M/D		1	8655	KR	EET ALB	07/18/24 14:16
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 09:26

Client Sample ID: BH24-27 2'
Lab Sample ID: 885-8087-20
Date Collected: 07/12/24 13:20
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 13:24
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 13:24

Lab Chronicle

Client: Vertex
Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-27 2'
Lab Sample ID: 885-8087-20
Date Collected: 07/12/24 13:20
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 02:35
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 09:39

Client Sample ID: BH24-27 4'
Lab Sample ID: 885-8087-21
Date Collected: 07/12/24 13:25
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 14:34
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 14:34
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 02:46
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 09:52

Client Sample ID: BH24-16 6'
Lab Sample ID: 885-8087-22
Date Collected: 07/12/24 13:30
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 15:45
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 15:45
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 02:57
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 10:05

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8087-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 Days

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No yes
# of Coolers: 1
Cooler Temp(including CF): 0.8 ± 0 = 0.8 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-8087 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
7.12.24	8:55	Soil	BH24-21 0'	4oz Jar	ICE	1	x	x					x								
7.12.24	9:00	Soil	BH24-21 2'	4oz Jar	ICE	2	x	x					x								
7.12.24	9:05	Soil	BH24-21 4'	4oz Jar	ICE	3	x	x					x								
7.12.24	9:10	Soil	BH24-22 0'	4oz Jar	ICE	4	x	x					x								
7.12.24	9:15	Soil	BH24-22 2'	4oz Jar	ICE	5	x	x					x								
7.12.24	9:20	Soil	BH24-22 4'	4oz Jar	ICE	6	x	x					x								
7.12.24	9:25	Soil	BH24-23 0'	4oz Jar	ICE	7	x	x					x								
7.12.24	9:30	Soil	BH24-23 2'	4oz Jar	ICE	8	x	x					x								
7.12.24	9:35	Soil	BH24-23 4'	4oz Jar	ICE	9	x	x					x								
7.12.24	9:40	Soil	BH24-24 0'	4oz Jar	ICE	10	x	x					x								
7.12.24	9:45	Soil	BH24-24 2'	4oz Jar	ICE	11	x	x					x								
7.12.24	9:50	Soil	BH24-24 4'	4oz Jar	ICE	12	x	x					x								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7.12.24	0706	John Rewis				
7/16/24	1900			courier	7/16/24	0700
					7/17/24	7:10

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 Day

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No Yes
# of Coolers: 1
Cooler Temp(including CF): 0.8 + 0 = 0.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
7.12.24	10:00	Soil	BH24-25 0'	4oz Jar	ICE	13	x	x					x									
7.12.24	10:05	Soil	BH24-25 2'	4oz Jar	ICE	14	x	x					x									
7.12.24	9:05	Soil	BH24-25 4'	4oz Jar	ICE	15	x	x					x									
7.12.24	13:00	Soil	BH24-26 0'	4oz Jar	ICE	16	x	x					x									
7.12.24	13:05	Soil	BH24-26 2'	4oz Jar	ICE	17	x	x					x									
7.12.24	13:10	Soil	BH24-26 4'	4oz Jar	ICE	18	x	x					x									
7.12.24	13:15	Soil	BH24-27 0'	4oz Jar	ICE	19	x	x					x									
7.12.24	13:20	Soil	BH24-27 2'	4oz Jar	ICE	20	x	x					x									
7.12.24	13:25	Soil	BH24-27 4'	4oz Jar	ICE	21	x	x					x									
7.12.24	13:30	Soil	BH24-16 6'	4oz Jar	ICE	22	x	x					x									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7.15.24	0700	John Rewis			7/16/24	0700
7/16/24	1900			Courier	7/17/24	7:10

Remarks:
Direct Bill to Mack Energy,

CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8087-1

Login Number: 8087 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/24/2024 3:18:48 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8088-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/24/2024 3:18:48 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8088-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 21
QC Association Summary 26
Lab Chronicle 30
Certification Summary 35
Chain of Custody 36
Receipt Checklists 40

Definitions/Glossary

Client: Vertex Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8088-1
Project: Dawson Creek State #2

Job ID: 885-8088-1 Eurofins Albuquerque

Job Narrative
885-8088-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/17/2024 7:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-29 0.0'

Date Collected: 07/15/24 10:15
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 16:10	07/20/24 06:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/17/24 16:10*	*07/20/24 06:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 06:51	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 06:51	1
Toluene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 06:51	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 16:10	07/20/24 06:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 16:10*	*07/20/24 06:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.6		mg/Kg		07/18/24 12:18	07/19/24 03:03	1
Motor Oil Range Organics [C28-C40]	ND		43		mg/Kg		07/18/24 12:18	07/19/24 03:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/18/24 12:18*	*07/19/24 03:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 10:18	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-29 2.0'

Date Collected: 07/15/24 10:20
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 16:10	07/20/24 07:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/17/24 16:10*	*07/20/24 07:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 07:13	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 07:13	1
Toluene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 07:13	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 16:10	07/20/24 07:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/17/24 16:10*	*07/20/24 07:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/18/24 12:18	07/19/24 03:28	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 12:18	07/19/24 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/18/24 12:18*	*07/19/24 03:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 11:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-29 4.0'

Date Collected: 07/15/24 10:25
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 16:10	07/20/24 07:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*07/17/24 16:10*	*07/20/24 07:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 07:35	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 07:35	1
Toluene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 07:35	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 16:10	07/20/24 07:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/17/24 16:10*	*07/20/24 07:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/18/24 12:18	07/19/24 03:52	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 12:18	07/19/24 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/18/24 12:18*	*07/19/24 03:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		60		mg/Kg		07/19/24 07:01	07/19/24 11:21	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-30 0.0'

Date Collected: 07/15/24 10:45
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 16:10	07/20/24 07:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/17/24 16:10*	*07/20/24 07:57*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 07:57	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 07:57	1
Toluene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 07:57	1
Xylenes, Total	ND		0.099		mg/Kg		07/17/24 16:10	07/20/24 07:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/17/24 16:10*	*07/20/24 07:57*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/18/24 12:18	07/19/24 04:16	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 12:18	07/19/24 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/18/24 12:18*	*07/19/24 04:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 11:33	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-30 2.0'

Date Collected: 07/15/24 10:50
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 16:10	07/20/24 08:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/17/24 16:10*	*07/20/24 08:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 08:18	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 16:10	07/20/24 08:18	1
Toluene	ND		0.049		mg/Kg		07/17/24 16:10	07/20/24 08:18	1
Xylenes, Total	ND		0.099		mg/Kg		07/17/24 16:10	07/20/24 08:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/17/24 16:10*	*07/20/24 08:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/18/24 12:18	07/19/24 04:41	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 12:18	07/19/24 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/18/24 12:18*	*07/19/24 04:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 11:46	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-30 4.0'

Date Collected: 07/15/24 10:55
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/17/24 16:10	07/20/24 08:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/17/24 16:10*	*07/20/24 08:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 08:40	1
Ethylbenzene	ND		0.049		mg/Kg		07/17/24 16:10	07/20/24 08:40	1
Toluene	ND		0.049		mg/Kg		07/17/24 16:10	07/20/24 08:40	1
Xylenes, Total	ND		0.098		mg/Kg		07/17/24 16:10	07/20/24 08:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/17/24 16:10*	*07/20/24 08:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/18/24 12:18	07/19/24 05:05	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 12:18	07/19/24 05:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/18/24 12:18*	*07/19/24 05:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60**		60		mg/Kg		07/19/24 07:01	07/19/24 11:59	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-31 0.0'

Date Collected: 07/15/24 11:15
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 16:10	07/20/24 09:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/17/24 16:10*	*07/20/24 09:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 09:02	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 09:02	1
Toluene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 09:02	1
Xylenes, Total	ND		0.099		mg/Kg		07/17/24 16:10	07/20/24 09:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/17/24 16:10*	*07/20/24 09:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/18/24 12:18	07/19/24 05:29	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 12:18	07/19/24 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*112*		*62 - 134*	*07/18/24 12:18*	*07/19/24 05:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 12:12	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-31 2.0'

Date Collected: 07/15/24 11:20
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/17/24 16:10	07/20/24 09:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/17/24 16:10*	*07/20/24 09:24*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/17/24 16:10	07/20/24 09:24	1
Ethylbenzene	ND		0.048		mg/Kg		07/17/24 16:10	07/20/24 09:24	1
Toluene	ND		0.048		mg/Kg		07/17/24 16:10	07/20/24 09:24	1
Xylenes, Total	ND		0.096		mg/Kg		07/17/24 16:10	07/20/24 09:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/17/24 16:10*	*07/20/24 09:24*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/18/24 12:18	07/19/24 05:53	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 12:18	07/19/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*07/18/24 12:18*	*07/19/24 05:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 12:25	20

Client Sample Results

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-31 4.0'
Lab Sample ID: 885-8088-9
Date Collected: 07/15/24 11:30
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/18/24 08:44	07/20/24 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/18/24 08:44*	*07/20/24 16:32*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/18/24 08:44	07/20/24 16:32	1
Ethylbenzene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 16:32	1
Toluene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 16:32	1
Xylenes, Total	ND		0.098		mg/Kg		07/18/24 08:44	07/20/24 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/18/24 08:44*	*07/20/24 16:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/18/24 14:33	07/20/24 03:08	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/18/24 14:33	07/20/24 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*128*		*62 - 134*	*07/18/24 14:33*	*07/20/24 03:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 12:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-32 0.0'

Date Collected: 07/15/24 11:45
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-10

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/18/24 08:44	07/20/24 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/18/24 08:44*	*07/20/24 16:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/18/24 08:44	07/20/24 16:55	1
Ethylbenzene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 16:55	1
Toluene	ND		0.050		mg/Kg		07/18/24 08:44	07/20/24 16:55	1
Xylenes, Total	ND		0.10		mg/Kg		07/18/24 08:44	07/20/24 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/18/24 08:44*	*07/20/24 16:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 14:33	07/20/24 03:30	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 14:33	07/20/24 03:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*07/18/24 14:33*	*07/20/24 03:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61		mg/Kg		07/19/24 07:01	07/19/24 12:51	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-32 2.0'

Date Collected: 07/15/24 11:50
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-11

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/18/24 08:44	07/20/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*07/18/24 08:44*	*07/20/24 17:19*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/18/24 08:44	07/20/24 17:19	1
Ethylbenzene	ND		0.048		mg/Kg		07/18/24 08:44	07/20/24 17:19	1
Toluene	ND		0.048		mg/Kg		07/18/24 08:44	07/20/24 17:19	1
Xylenes, Total	ND		0.096		mg/Kg		07/18/24 08:44	07/20/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*07/18/24 08:44*	*07/20/24 17:19*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/18/24 14:33	07/20/24 03:42	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/18/24 14:33	07/20/24 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*	*07/18/24 14:33*	*07/20/24 03:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 13:04	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Client Sample ID: BH24-32 4.0'

Date Collected: 07/15/24 11:55
Date Received: 07/17/24 07:18

Lab Sample ID: 885-8088-12

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/18/24 08:44	07/20/24 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/18/24 08:44*	*07/20/24 17:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/18/24 08:44	07/20/24 17:42	1
Ethylbenzene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 17:42	1
Toluene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 17:42	1
Xylenes, Total	ND		0.098		mg/Kg		07/18/24 08:44	07/20/24 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/18/24 08:44*	*07/20/24 17:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/18/24 14:33	07/20/24 03:53	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/18/24 14:33	07/20/24 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*115*		*62 - 134*	*07/18/24 14:33*	*07/20/24 03:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		07/19/24 07:01	07/19/24 13:42	20

Client Sample Results

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-33 0.0'
Lab Sample ID: 885-8088-13
Date Collected: 07/15/24 12:15
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/18/24 08:44	07/20/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/18/24 08:44*	*07/20/24 18:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/18/24 08:44	07/20/24 18:06	1
Ethylbenzene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 18:06	1
Toluene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 18:06	1
Xylenes, Total	ND		0.097		mg/Kg		07/18/24 08:44	07/20/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/18/24 08:44*	*07/20/24 18:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/18/24 14:33	07/20/24 04:04	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 14:33	07/20/24 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*118*		*62 - 134*	*07/18/24 14:33*	*07/20/24 04:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:01	07/19/24 14:21	20

Client Sample Results

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-33 2.0'
Lab Sample ID: 885-8088-14
Date Collected: 07/15/24 12:25
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/18/24 08:44	07/20/24 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/18/24 08:44*	*07/20/24 18:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/18/24 08:44	07/20/24 18:29	1
Ethylbenzene	ND		0.048		mg/Kg		07/18/24 08:44	07/20/24 18:29	1
Toluene	ND		0.048		mg/Kg		07/18/24 08:44	07/20/24 18:29	1
Xylenes, Total	ND		0.096		mg/Kg		07/18/24 08:44	07/20/24 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/18/24 08:44*	*07/20/24 18:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/18/24 14:33	07/20/24 04:15	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 14:33	07/20/24 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*117*		*62 - 134*	*07/18/24 14:33*	*07/20/24 04:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/19/24 07:51	07/19/24 09:00	20

Client Sample Results

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-33 4.0'
Lab Sample ID: 885-8088-15
Date Collected: 07/15/24 12:35
Matrix: Solid
Date Received: 07/17/24 07:18

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/18/24 08:44	07/20/24 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/18/24 08:44*	*07/20/24 18:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/18/24 08:44	07/20/24 18:52	1
Ethylbenzene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 18:52	1
Toluene	ND		0.049		mg/Kg		07/18/24 08:44	07/20/24 18:52	1
Xylenes, Total	ND		0.099		mg/Kg		07/18/24 08:44	07/20/24 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/18/24 08:44*	*07/20/24 18:52*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/18/24 14:33	07/20/24 04:27	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/18/24 14:33	07/20/24 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*112*		*62 - 134*	*07/18/24 14:33*	*07/20/24 04:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		07/19/24 07:51	07/19/24 09:15	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8604/1-A
Matrix: Solid
Analysis Batch: 8847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8604

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/17/24 16:10	07/20/24 00:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/17/24 16:10*	*07/20/24 00:20*	*1*

Lab Sample ID: LCS 885-8604/2-A
Matrix: Solid
Analysis Batch: 8847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8604

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.8		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8633/1-A
Matrix: Solid
Analysis Batch: 8807

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8633

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/18/24 08:44	07/20/24 13:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/18/24 08:44*	*07/20/24 13:00*	*1*

Lab Sample ID: LCS 885-8633/2-A
Matrix: Solid
Analysis Batch: 8807

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8633

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.2		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8604/1-A
Matrix: Solid
Analysis Batch: 8848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8604

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/17/24 16:10	07/20/24 00:20	1
Ethylbenzene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 00:20	1
Toluene	ND		0.050		mg/Kg		07/17/24 16:10	07/20/24 00:20	1
Xylenes, Total	ND		0.10		mg/Kg		07/17/24 16:10	07/20/24 00:20	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-8604/1-A
Matrix: Solid
Analysis Batch: 8848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8604

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		48 - 145	07/17/24 16:10	07/20/24 00:20	1

Lab Sample ID: LCS 885-8604/3-A
Matrix: Solid
Analysis Batch: 8848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8604

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.818		mg/Kg		82	70 - 130
Ethylbenzene	1.00	0.830		mg/Kg		83	70 - 130
m,p-Xylene	2.00	1.65		mg/Kg		83	70 - 130
o-Xylene	1.00	0.833		mg/Kg		83	70 - 130
Toluene	1.00	0.822		mg/Kg		82	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		48 - 145

Lab Sample ID: MB 885-8633/1-A
Matrix: Solid
Analysis Batch: 8808

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8633

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/18/24 08:44	07/20/24 13:00	1
Ethylbenzene	ND		0.050	mg/Kg		07/18/24 08:44	07/20/24 13:00	1
Toluene	ND		0.050	mg/Kg		07/18/24 08:44	07/20/24 13:00	1
Xylenes, Total	ND		0.10	mg/Kg		07/18/24 08:44	07/20/24 13:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		48 - 145	07/18/24 08:44	07/20/24 13:00	1

Lab Sample ID: LCS 885-8633/3-A
Matrix: Solid
Analysis Batch: 8808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.812		mg/Kg		81	70 - 130
Ethylbenzene	1.00	0.771		mg/Kg		77	70 - 130
m,p-Xylene	2.00	1.55		mg/Kg		78	70 - 130
o-Xylene	1.00	0.758		mg/Kg		76	70 - 130
Toluene	1.00	0.769		mg/Kg		77	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		48 - 145

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8671/1-A
Matrix: Solid
Analysis Batch: 8691

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8671

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 12:18	07/18/24 17:37	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 12:18	07/18/24 17:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*123*		*62 - 134*	*07/18/24 12:18*	*07/18/24 17:37*	*1*

Lab Sample ID: LCS 885-8671/2-A
Matrix: Solid
Analysis Batch: 8691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8671

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	50.6		mg/Kg		101	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*

Lab Sample ID: 885-8088-8 MS
Matrix: Solid
Analysis Batch: 8691

Client Sample ID: BH24-31 2.0'
Prep Type: Total/NA
Prep Batch: 8671

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		47.4	53.5		mg/Kg		113	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*

Lab Sample ID: 885-8088-8 MSD
Matrix: Solid
Analysis Batch: 8691

Client Sample ID: BH24-31 2.0'
Prep Type: Total/NA
Prep Batch: 8671

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.5	54.2		mg/Kg		114	44 - 136	1	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*

Lab Sample ID: MB 885-8702/1-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8702

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/18/24 14:33	07/20/24 02:13	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/18/24 14:33	07/20/24 02:13	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-8702/1-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8702

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	115		62 - 134	07/18/24 14:33	07/20/24 02:13	1

Lab Sample ID: LCS 885-8702/2-A
Matrix: Solid
Analysis Batch: 8751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8702

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	55.1		mg/Kg		110	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	105		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-8735/1-A
Matrix: Solid
Analysis Batch: 8833

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		07/19/24 07:01	07/19/24 07:49	1

Lab Sample ID: LCS 885-8735/2-A
Matrix: Solid
Analysis Batch: 8833

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	31.2		mg/Kg		104	90 - 110

Lab Sample ID: 885-8088-12 MS
Matrix: Solid
Analysis Batch: 8833

Client Sample ID: BH24-32 4.0'
Prep Type: Total/NA
Prep Batch: 8735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	150		30.2	181	4	mg/Kg		95	50 - 150

Lab Sample ID: 885-8088-12 MSD
Matrix: Solid
Analysis Batch: 8833

Client Sample ID: BH24-32 4.0'
Prep Type: Total/NA
Prep Batch: 8735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	150		30.0	182	4	mg/Kg		98	50 - 150	1	20

Lab Sample ID: MB 885-8739/1-A
Matrix: Solid
Analysis Batch: 8813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8739

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		07/19/24 07:51	07/19/24 08:16	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-8739/2-A
Matrix: Solid
Analysis Batch: 8813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8739

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.3		mg/Kg		98	90 - 110		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

GC VOA

Prep Batch: 8604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-1	BH24-29 0.0'	Total/NA	Solid	5030C	
885-8088-2	BH24-29 2.0'	Total/NA	Solid	5030C	
885-8088-3	BH24-29 4.0'	Total/NA	Solid	5030C	
885-8088-4	BH24-30 0.0'	Total/NA	Solid	5030C	
885-8088-5	BH24-30 2.0'	Total/NA	Solid	5030C	
885-8088-6	BH24-30 4.0'	Total/NA	Solid	5030C	
885-8088-7	BH24-31 0.0'	Total/NA	Solid	5030C	
885-8088-8	BH24-31 2.0'	Total/NA	Solid	5030C	
MB 885-8604/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8604/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8604/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 8633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-9	BH24-31 4.0'	Total/NA	Solid	5030C	
885-8088-10	BH24-32 0.0'	Total/NA	Solid	5030C	
885-8088-11	BH24-32 2.0'	Total/NA	Solid	5030C	
885-8088-12	BH24-32 4.0'	Total/NA	Solid	5030C	
885-8088-13	BH24-33 0.0'	Total/NA	Solid	5030C	
885-8088-14	BH24-33 2.0'	Total/NA	Solid	5030C	
885-8088-15	BH24-33 4.0'	Total/NA	Solid	5030C	
MB 885-8633/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8633/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8633/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 8807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-9	BH24-31 4.0'	Total/NA	Solid	8015M/D	8633
885-8088-10	BH24-32 0.0'	Total/NA	Solid	8015M/D	8633
885-8088-11	BH24-32 2.0'	Total/NA	Solid	8015M/D	8633
885-8088-12	BH24-32 4.0'	Total/NA	Solid	8015M/D	8633
885-8088-13	BH24-33 0.0'	Total/NA	Solid	8015M/D	8633
885-8088-14	BH24-33 2.0'	Total/NA	Solid	8015M/D	8633
885-8088-15	BH24-33 4.0'	Total/NA	Solid	8015M/D	8633
MB 885-8633/1-A	Method Blank	Total/NA	Solid	8015M/D	8633
LCS 885-8633/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8633

Analysis Batch: 8808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-9	BH24-31 4.0'	Total/NA	Solid	8021B	8633
885-8088-10	BH24-32 0.0'	Total/NA	Solid	8021B	8633
885-8088-11	BH24-32 2.0'	Total/NA	Solid	8021B	8633
885-8088-12	BH24-32 4.0'	Total/NA	Solid	8021B	8633
885-8088-13	BH24-33 0.0'	Total/NA	Solid	8021B	8633
885-8088-14	BH24-33 2.0'	Total/NA	Solid	8021B	8633
885-8088-15	BH24-33 4.0'	Total/NA	Solid	8021B	8633
MB 885-8633/1-A	Method Blank	Total/NA	Solid	8021B	8633
LCS 885-8633/3-A	Lab Control Sample	Total/NA	Solid	8021B	8633

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

GC VOA

Analysis Batch: 8847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-1	BH24-29 0.0'	Total/NA	Solid	8015M/D	8604
885-8088-2	BH24-29 2.0'	Total/NA	Solid	8015M/D	8604
885-8088-3	BH24-29 4.0'	Total/NA	Solid	8015M/D	8604
885-8088-4	BH24-30 0.0'	Total/NA	Solid	8015M/D	8604
885-8088-5	BH24-30 2.0'	Total/NA	Solid	8015M/D	8604
885-8088-6	BH24-30 4.0'	Total/NA	Solid	8015M/D	8604
885-8088-7	BH24-31 0.0'	Total/NA	Solid	8015M/D	8604
885-8088-8	BH24-31 2.0'	Total/NA	Solid	8015M/D	8604
MB 885-8604/1-A	Method Blank	Total/NA	Solid	8015M/D	8604
LCS 885-8604/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8604

Analysis Batch: 8848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-1	BH24-29 0.0'	Total/NA	Solid	8021B	8604
885-8088-2	BH24-29 2.0'	Total/NA	Solid	8021B	8604
885-8088-3	BH24-29 4.0'	Total/NA	Solid	8021B	8604
885-8088-4	BH24-30 0.0'	Total/NA	Solid	8021B	8604
885-8088-5	BH24-30 2.0'	Total/NA	Solid	8021B	8604
885-8088-6	BH24-30 4.0'	Total/NA	Solid	8021B	8604
885-8088-7	BH24-31 0.0'	Total/NA	Solid	8021B	8604
885-8088-8	BH24-31 2.0'	Total/NA	Solid	8021B	8604
MB 885-8604/1-A	Method Blank	Total/NA	Solid	8021B	8604
LCS 885-8604/3-A	Lab Control Sample	Total/NA	Solid	8021B	8604

GC Semi VOA

Prep Batch: 8671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-1	BH24-29 0.0'	Total/NA	Solid	SHAKE	
885-8088-2	BH24-29 2.0'	Total/NA	Solid	SHAKE	
885-8088-3	BH24-29 4.0'	Total/NA	Solid	SHAKE	
885-8088-4	BH24-30 0.0'	Total/NA	Solid	SHAKE	
885-8088-5	BH24-30 2.0'	Total/NA	Solid	SHAKE	
885-8088-6	BH24-30 4.0'	Total/NA	Solid	SHAKE	
885-8088-7	BH24-31 0.0'	Total/NA	Solid	SHAKE	
885-8088-8	BH24-31 2.0'	Total/NA	Solid	SHAKE	
MB 885-8671/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8671/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8088-8 MS	BH24-31 2.0'	Total/NA	Solid	SHAKE	
885-8088-8 MSD	BH24-31 2.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 8691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-1	BH24-29 0.0'	Total/NA	Solid	8015M/D	8671
885-8088-2	BH24-29 2.0'	Total/NA	Solid	8015M/D	8671
885-8088-3	BH24-29 4.0'	Total/NA	Solid	8015M/D	8671
885-8088-4	BH24-30 0.0'	Total/NA	Solid	8015M/D	8671
885-8088-5	BH24-30 2.0'	Total/NA	Solid	8015M/D	8671
885-8088-6	BH24-30 4.0'	Total/NA	Solid	8015M/D	8671
885-8088-7	BH24-31 0.0'	Total/NA	Solid	8015M/D	8671
885-8088-8	BH24-31 2.0'	Total/NA	Solid	8015M/D	8671

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

GC Semi VOA (Continued)

Analysis Batch: 8691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-8671/1-A	Method Blank	Total/NA	Solid	8015M/D	8671
LCS 885-8671/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8671
885-8088-8 MS	BH24-31 2.0'	Total/NA	Solid	8015M/D	8671
885-8088-8 MSD	BH24-31 2.0'	Total/NA	Solid	8015M/D	8671

Prep Batch: 8702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-9	BH24-31 4.0'	Total/NA	Solid	SHAKE	
885-8088-10	BH24-32 0.0'	Total/NA	Solid	SHAKE	
885-8088-11	BH24-32 2.0'	Total/NA	Solid	SHAKE	
885-8088-12	BH24-32 4.0'	Total/NA	Solid	SHAKE	
885-8088-13	BH24-33 0.0'	Total/NA	Solid	SHAKE	
885-8088-14	BH24-33 2.0'	Total/NA	Solid	SHAKE	
885-8088-15	BH24-33 4.0'	Total/NA	Solid	SHAKE	
MB 885-8702/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8702/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 8751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-9	BH24-31 4.0'	Total/NA	Solid	8015M/D	8702
885-8088-10	BH24-32 0.0'	Total/NA	Solid	8015M/D	8702
885-8088-11	BH24-32 2.0'	Total/NA	Solid	8015M/D	8702
885-8088-12	BH24-32 4.0'	Total/NA	Solid	8015M/D	8702
885-8088-13	BH24-33 0.0'	Total/NA	Solid	8015M/D	8702
885-8088-14	BH24-33 2.0'	Total/NA	Solid	8015M/D	8702
885-8088-15	BH24-33 4.0'	Total/NA	Solid	8015M/D	8702
MB 885-8702/1-A	Method Blank	Total/NA	Solid	8015M/D	8702
LCS 885-8702/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8702

HPLC/IC

Prep Batch: 8735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-1	BH24-29 0.0'	Total/NA	Solid	300_Prep	
885-8088-2	BH24-29 2.0'	Total/NA	Solid	300_Prep	
885-8088-3	BH24-29 4.0'	Total/NA	Solid	300_Prep	
885-8088-4	BH24-30 0.0'	Total/NA	Solid	300_Prep	
885-8088-5	BH24-30 2.0'	Total/NA	Solid	300_Prep	
885-8088-6	BH24-30 4.0'	Total/NA	Solid	300_Prep	
885-8088-7	BH24-31 0.0'	Total/NA	Solid	300_Prep	
885-8088-8	BH24-31 2.0'	Total/NA	Solid	300_Prep	
885-8088-9	BH24-31 4.0'	Total/NA	Solid	300_Prep	
885-8088-10	BH24-32 0.0'	Total/NA	Solid	300_Prep	
885-8088-11	BH24-32 2.0'	Total/NA	Solid	300_Prep	
885-8088-12	BH24-32 4.0'	Total/NA	Solid	300_Prep	
885-8088-13	BH24-33 0.0'	Total/NA	Solid	300_Prep	
MB 885-8735/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8735/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-8088-12 MS	BH24-32 4.0'	Total/NA	Solid	300_Prep	
885-8088-12 MSD	BH24-32 4.0'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8088-1

HPLC/IC

Prep Batch: 8739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-14	BH24-33 2.0'	Total/NA	Solid	300_Prep	
885-8088-15	BH24-33 4.0'	Total/NA	Solid	300_Prep	
MB 885-8739/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8739/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 8813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-14	BH24-33 2.0'	Total/NA	Solid	300.0	8739
885-8088-15	BH24-33 4.0'	Total/NA	Solid	300.0	8739
MB 885-8739/1-A	Method Blank	Total/NA	Solid	300.0	8739
LCS 885-8739/2-A	Lab Control Sample	Total/NA	Solid	300.0	8739

Analysis Batch: 8833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8088-1	BH24-29 0.0'	Total/NA	Solid	300.0	8735
885-8088-2	BH24-29 2.0'	Total/NA	Solid	300.0	8735
885-8088-3	BH24-29 4.0'	Total/NA	Solid	300.0	8735
885-8088-4	BH24-30 0.0'	Total/NA	Solid	300.0	8735
885-8088-5	BH24-30 2.0'	Total/NA	Solid	300.0	8735
885-8088-6	BH24-30 4.0'	Total/NA	Solid	300.0	8735
885-8088-7	BH24-31 0.0'	Total/NA	Solid	300.0	8735
885-8088-8	BH24-31 2.0'	Total/NA	Solid	300.0	8735
885-8088-9	BH24-31 4.0'	Total/NA	Solid	300.0	8735
885-8088-10	BH24-32 0.0'	Total/NA	Solid	300.0	8735
885-8088-11	BH24-32 2.0'	Total/NA	Solid	300.0	8735
885-8088-12	BH24-32 4.0'	Total/NA	Solid	300.0	8735
885-8088-13	BH24-33 0.0'	Total/NA	Solid	300.0	8735
MB 885-8735/1-A	Method Blank	Total/NA	Solid	300.0	8735
LCS 885-8735/2-A	Lab Control Sample	Total/NA	Solid	300.0	8735
885-8088-12 MS	BH24-32 4.0'	Total/NA	Solid	300.0	8735
885-8088-12 MSD	BH24-32 4.0'	Total/NA	Solid	300.0	8735

Lab Chronicle

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-29 0.0'
Lab Sample ID: 885-8088-1
Date Collected: 07/15/24 10:15
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 06:51
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 06:51
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 03:03
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 10:18

Client Sample ID: BH24-29 2.0'
Lab Sample ID: 885-8088-2
Date Collected: 07/15/24 10:20
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 07:13
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 07:13
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 03:28
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 11:08

Client Sample ID: BH24-29 4.0'
Lab Sample ID: 885-8088-3
Date Collected: 07/15/24 10:25
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 07:35
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 07:35
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 03:52
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 11:21

Client Sample ID: BH24-30 0.0'
Lab Sample ID: 885-8088-4
Date Collected: 07/15/24 10:45
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 07:57

Lab Chronicle

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-30 0.0'
Lab Sample ID: 885-8088-4
Date Collected: 07/15/24 10:45
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 07:57
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 04:16
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 11:33

Client Sample ID: BH24-30 2.0'
Lab Sample ID: 885-8088-5
Date Collected: 07/15/24 10:50
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 08:18
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 08:18
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 04:41
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 11:46

Client Sample ID: BH24-30 4.0'
Lab Sample ID: 885-8088-6
Date Collected: 07/15/24 10:55
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 08:40
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 08:40
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 05:05
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 11:59

Client Sample ID: BH24-31 0.0'
Lab Sample ID: 885-8088-7
Date Collected: 07/15/24 11:15
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 09:02
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 09:02

Lab Chronicle

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-31 0.0'
Lab Sample ID: 885-8088-7
Date Collected: 07/15/24 11:15
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 05:29
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 12:12

Client Sample ID: BH24-31 2.0'
Lab Sample ID: 885-8088-8
Date Collected: 07/15/24 11:20
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8015M/D		1	8847	AT	EET ALB	07/20/24 09:24
Total/NA	Prep	5030C			8604	AT	EET ALB	07/17/24 16:10
Total/NA	Analysis	8021B		1	8848	AT	EET ALB	07/20/24 09:24
Total/NA	Prep	SHAKE			8671	KR	EET ALB	07/18/24 12:18
Total/NA	Analysis	8015M/D		1	8691	DH	EET ALB	07/19/24 05:53
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 12:25

Client Sample ID: BH24-31 4.0'
Lab Sample ID: 885-8088-9
Date Collected: 07/15/24 11:30
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 16:32
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 16:32
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 03:08
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 12:38

Client Sample ID: BH24-32 0.0'
Lab Sample ID: 885-8088-10
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 16:55
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 16:55
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 03:30

Lab Chronicle

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-32 0.0'
Lab Sample ID: 885-8088-10
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 12:51

Client Sample ID: BH24-32 2.0'
Lab Sample ID: 885-8088-11
Date Collected: 07/15/24 11:50
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 17:19
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 17:19
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 03:42
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 13:04

Client Sample ID: BH24-32 4.0'
Lab Sample ID: 885-8088-12
Date Collected: 07/15/24 11:55
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 17:42
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 17:42
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 03:53
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 13:42

Client Sample ID: BH24-33 0.0'
Lab Sample ID: 885-8088-13
Date Collected: 07/15/24 12:15
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 18:06
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 18:06
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 04:04
Total/NA	Prep	300_Prep			8735	JT	EET ALB	07/19/24 07:01
Total/NA	Analysis	300.0		20	8833	RC	EET ALB	07/19/24 14:21

Lab Chronicle

Client: Vertex
Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-33 2.0'
Lab Sample ID: 885-8088-14

Date Collected: 07/15/24 12:25
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 18:29
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 18:29
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 04:15
Total/NA	Prep	300_Prep			8739	JT	EET ALB	07/19/24 07:51
Total/NA	Analysis	300.0		20	8813	RC	EET ALB	07/19/24 09:00

Client Sample ID: BH24-33 4.0'
Lab Sample ID: 885-8088-15

Date Collected: 07/15/24 12:35
Matrix: Solid
Date Received: 07/17/24 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8015M/D		1	8807	JP	EET ALB	07/20/24 18:52
Total/NA	Prep	5030C			8633	AT	EET ALB	07/18/24 08:44
Total/NA	Analysis	8021B		1	8808	JP	EET ALB	07/20/24 18:52
Total/NA	Prep	SHAKE			8702	KR	EET ALB	07/18/24 14:33
Total/NA	Analysis	8015M/D		1	8751	DH	EET ALB	07/20/24 04:27
Total/NA	Prep	300_Prep			8739	JT	EET ALB	07/19/24 07:51
Total/NA	Analysis	300.0		20	8813	RC	EET ALB	07/19/24 09:15

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8088-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: On File

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No Yogi

# of Coolers:

Cooler Temp(including CF): 0.8 ± 0 = 0.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109 885-8088 COC
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.15.24	1015	Soil	BH24-29	0.0'	4oz	ICE	1										
	1020		BH24-29	2.0'			2										
	1025		BH24-29	4.0'			3										
	1045		BH24-30	0.0'			4										
	1050		BH24-30	2.0'			5										
	1055		BH24-30	4.0'			6										
	1115		BH24-31	0.0'			7										
	1120		BH24-31	2.0'			8										
	1130		BH24-31	4.0'			9										
	1145		BH24-32	0.0'			10										
	1150		BH24-32	2.0'			11										
	1155		BH24-32	4.0'			12										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/16/24	0900
7/16/24	1900			courier	7/17/24	7:18

Remarks: Bill to Mack
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: On File

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No yog

# of Coolers: 1

Cooler Temp(including CF): 0.8 +Ø = 0.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.15.24	1215	Soil	BH24-33 0.0'	4 oz	ICE	13	✓	✓					✓			
↓	1225	↓	BH24-33 2.0'	↓	↓	14										
↓	1235	↓	BH24-33 4.0'	↓	↓	15										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/16/24	900
7/16/24	1900			Courier	7/17/24	7:18

Remarks: Bill to Mack

cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: On File

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 0.8 ± 0 = 0.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORA

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109 885-8088 COC

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.15.24	1015	Soil	BH24-29	0.0'	4oz	ICE	1										
	1020		BH24-29	2.0'			2										
	1025		BH24-29	4.0'			3										
	1045		BH24-30	0.0'			4										
	1050		BH24-30	2.0'			5										
	1055		BH24-30	4.0'			6										
	1115		BH24-31	0.0'			7										
	1120		BH24-31	2.0'			8										
	1130		BH24-31	4.0'			9										
	1145		BH24-32	0.0'			10										
	1150		BH24-32	2.0'			11										
	1155		BH24-32	4.0'			12										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/16/24	0900
7/16/24	1900			courier	7/17/24	7:18

Remarks: Bill to Mack
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Page 407 of 1201

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: On File

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No yog

# of Coolers: 1

Cooler Temp(including CF): 0.8 +- 0 = 0.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

7/24/2024

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.15.24	1215	Soil	BH24-33 0.0'	4 oz	ICE	13										
	1225		BH24-33 2.0'			14										
	1235		BH24-33 4.0'			15										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			[signature]		7/16/24	900
7/16/24	1900	[signature]	[signature]	Courier	7/17/24	7:18

Remarks: Bill to Mack
cc: SCarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Received by OCD: 12/11/2024 12:00:41 AM

Released to Imaging: 2/19/2025 2:59:10 PM

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8088-1

Login Number: 8088 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/29/2024 9:53:52 AM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8372-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/29/2024 9:53:52 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8372-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 15
QC Association Summary 18
Lab Chronicle 21
Certification Summary 24
Chain of Custody 25
Receipt Checklists 26

Definitions/Glossary

Client: Vertex Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8372-1
Project: Dawson Creek State #2

Job ID: 885-8372-1 Eurofins Albuquerque

Job Narrative
885-8372-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/20/2024 7:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: BH24-34 0.0' (885-8372-1), (MB 885-8970/1-A) and (885-8373-A-7-B). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Client Sample ID: BH24-34 0.0'

Date Collected: 07/16/24 09:45
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8372-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/22/24 11:56	07/23/24 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/22/24 11:56*	*07/23/24 17:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 11:56	07/23/24 17:33	1
Ethylbenzene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 17:33	1
Toluene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 17:33	1
Xylenes, Total	ND		0.098		mg/Kg		07/22/24 11:56	07/23/24 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/22/24 11:56*	*07/23/24 17:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 11:11	07/24/24 02:55	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 11:11	07/24/24 02:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*148*	*S1+*	*62 - 134*	*07/23/24 11:11*	*07/24/24 02:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**88**		60		mg/Kg		07/23/24 13:56	07/24/24 01:06	20

Client Sample Results

Client: Vertex
Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-34 2.0'
Lab Sample ID: 885-8372-2
Date Collected: 07/16/24 09:50
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 11:56	07/23/24 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/22/24 11:56*	*07/23/24 17:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 11:56	07/23/24 17:55	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 11:56	07/23/24 17:55	1
Toluene	ND		0.047		mg/Kg		07/22/24 11:56	07/23/24 17:55	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 11:56	07/23/24 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/22/24 11:56*	*07/23/24 17:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/23/24 11:11	07/24/24 03:06	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 11:11	07/24/24 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*129*		*62 - 134*	*07/23/24 11:11*	*07/24/24 03:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 13:56	07/24/24 01:19	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Client Sample ID: BH24-34 4.0'

Date Collected: 07/16/24 09:55
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8372-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/22/24 11:56	07/23/24 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/22/24 11:56*	*07/23/24 18:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 11:56	07/23/24 18:17	1
Ethylbenzene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 18:17	1
Toluene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 18:17	1
Xylenes, Total	ND		0.098		mg/Kg		07/22/24 11:56	07/23/24 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/22/24 11:56*	*07/23/24 18:17*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/23/24 11:11	07/24/24 03:17	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 11:11	07/24/24 03:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*121*		*62 - 134*	*07/23/24 11:11*	*07/24/24 03:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 13:56	07/24/24 01:31	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Client Sample ID: BH24-35 0.0'
Date Collected: 07/16/24 10:30
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8372-4
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/22/24 11:56	07/23/24 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/22/24 11:56*	*07/23/24 19:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 11:56	07/23/24 19:00	1
Ethylbenzene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 19:00	1
Toluene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 19:00	1
Xylenes, Total	ND		0.098		mg/Kg		07/22/24 11:56	07/23/24 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/22/24 11:56*	*07/23/24 19:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/23/24 11:11	07/24/24 03:28	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 11:11	07/24/24 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*07/23/24 11:11*	*07/24/24 03:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1000**		60		mg/Kg		07/23/24 13:56	07/24/24 01:43	20

Client Sample Results

Client: Vertex
Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-35 2.0'
Lab Sample ID: 885-8372-5
Date Collected: 07/16/24 10:35
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 11:56	07/23/24 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*35 - 166*	*07/22/24 11:56*	*07/23/24 19:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 11:56	07/23/24 19:22	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 11:56	07/23/24 19:22	1
Toluene	ND		0.047		mg/Kg		07/22/24 11:56	07/23/24 19:22	1
Xylenes, Total	ND		0.095		mg/Kg		07/22/24 11:56	07/23/24 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/22/24 11:56*	*07/23/24 19:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/23/24 11:11	07/24/24 03:40	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 11:11	07/24/24 03:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*123*		*62 - 134*	*07/23/24 11:11*	*07/24/24 03:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**400**		60		mg/Kg		07/23/24 13:56	07/24/24 01:56	20

Client Sample Results

Client: Vertex
Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-35 4.0'
Lab Sample ID: 885-8372-6
Date Collected: 07/16/24 10:40
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/22/24 11:56	07/23/24 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/22/24 11:56*	*07/23/24 19:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 11:56	07/23/24 19:44	1
Ethylbenzene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 19:44	1
Toluene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 19:44	1
Xylenes, Total	ND		0.097		mg/Kg		07/22/24 11:56	07/23/24 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/22/24 11:56*	*07/23/24 19:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/23/24 11:11	07/24/24 04:02	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 11:11	07/24/24 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*126*		*62 - 134*	*07/23/24 11:11*	*07/24/24 04:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82**		60		mg/Kg		07/23/24 13:56	07/24/24 02:33	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Client Sample ID: BH24-36 0.0'

Date Collected: 07/16/24 10:55
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8372-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/22/24 11:56	07/23/24 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*07/22/24 11:56*	*07/23/24 20:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 11:56	07/23/24 20:05	1
Ethylbenzene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 20:05	1
Toluene	ND		0.049		mg/Kg		07/22/24 11:56	07/23/24 20:05	1
Xylenes, Total	ND		0.099		mg/Kg		07/22/24 11:56	07/23/24 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/22/24 11:56*	*07/23/24 20:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/23/24 11:11	07/24/24 04:13	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/23/24 11:11	07/24/24 04:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*130*		*62 - 134*	*07/23/24 11:11*	*07/24/24 04:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1800**		60		mg/Kg		07/23/24 13:56	07/24/24 02:45	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Client Sample ID: BH24-36 2.0'

Date Collected: 07/16/24 11:00
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8372-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/22/24 11:56	07/23/24 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*07/22/24 11:56*	*07/23/24 20:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 11:56	07/23/24 20:27	1
Ethylbenzene	ND		0.048		mg/Kg		07/22/24 11:56	07/23/24 20:27	1
Toluene	ND		0.048		mg/Kg		07/22/24 11:56	07/23/24 20:27	1
Xylenes, Total	ND		0.095		mg/Kg		07/22/24 11:56	07/23/24 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/22/24 11:56*	*07/23/24 20:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/23/24 11:11	07/24/24 04:24	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/23/24 11:11	07/24/24 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*123*		*62 - 134*	*07/23/24 11:11*	*07/24/24 04:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		07/23/24 16:11	07/24/24 01:08	20

Client Sample Results

Client: Vertex
Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-36 4.0'
Lab Sample ID: 885-8372-9
Date Collected: 07/16/24 11:05
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 11:56	07/23/24 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/22/24 11:56*	*07/23/24 20:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 11:56	07/23/24 20:49	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 11:56	07/23/24 20:49	1
Toluene	ND		0.047		mg/Kg		07/22/24 11:56	07/23/24 20:49	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 11:56	07/23/24 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/22/24 11:56*	*07/23/24 20:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/23/24 11:11	07/24/24 04:35	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 11:11	07/24/24 04:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*124*		*62 - 134*	*07/23/24 11:11*	*07/24/24 04:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66**		60		mg/Kg		07/23/24 16:11	07/24/24 01:45	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8908/1-A
Matrix: Solid
Analysis Batch: 9046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8908

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/22/24 11:56	07/23/24 13:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/22/24 11:56*	*07/23/24 13:11*	*1*

Lab Sample ID: LCS 885-8908/2-A
Matrix: Solid
Analysis Batch: 9046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8908

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.5		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*207*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8908/1-A
Matrix: Solid
Analysis Batch: 9048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8908

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 11:56	07/23/24 13:11	1
Ethylbenzene	ND		0.050		mg/Kg		07/22/24 11:56	07/23/24 13:11	1
Toluene	ND		0.050		mg/Kg		07/22/24 11:56	07/23/24 13:11	1
Xylenes, Total	ND		0.10		mg/Kg		07/22/24 11:56	07/23/24 13:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/22/24 11:56*	*07/23/24 13:11*	*1*

Lab Sample ID: LCS 885-8908/3-A
Matrix: Solid
Analysis Batch: 9048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8908

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.907		mg/Kg		91	70 - 130		
Ethylbenzene			1.00	0.920		mg/Kg		92	70 - 130		
m,p-Xylene			2.00	1.84		mg/Kg		92	70 - 130		
o-Xylene			1.00	0.912		mg/Kg		91	70 - 130		
Toluene			1.00	0.916		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8970/1-A
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8970

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 11:11	07/24/24 01:46	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 11:11	07/24/24 01:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*137*	*S1+*	*62 - 134*	*07/23/24 11:11*	*07/24/24 01:46*	*1*

Lab Sample ID: LCS 885-8970/2-A
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8970

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	46.1		mg/Kg		92	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-8993/1-A
Matrix: Solid
Analysis Batch: 9019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8993

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		07/23/24 13:56	07/23/24 20:22	1

Lab Sample ID: LCS 885-8993/2-A
Matrix: Solid
Analysis Batch: 9019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8993

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.0		mg/Kg		93	90 - 110		

Lab Sample ID: MB 885-9004/1-A
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9004

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		07/23/24 16:11	07/24/24 00:43	1

Lab Sample ID: LCS 885-9004/2-A
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9004

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.2		mg/Kg		95	90 - 110		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-8372-8 MS
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: BH24-36 2.0'
Prep Type: Total/NA
Prep Batch: 9004

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	120		30.0	147		mg/Kg		104	50 - 150		

Lab Sample ID: 885-8372-8 MSD
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: BH24-36 2.0'
Prep Type: Total/NA
Prep Batch: 9004

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	120		30.2	148		mg/Kg		106	50 - 150	1	20

Lab Sample ID: MB 885-9021/24
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			07/23/24 08:59	1

Lab Sample ID: MRL 885-9021/23
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.522		mg/L		104	50 - 150		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

GC VOA

Prep Batch: 8908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-1	BH24-34 0.0'	Total/NA	Solid	5030C	
885-8372-2	BH24-34 2.0'	Total/NA	Solid	5030C	
885-8372-3	BH24-34 4.0'	Total/NA	Solid	5030C	
885-8372-4	BH24-35 0.0'	Total/NA	Solid	5030C	
885-8372-5	BH24-35 2.0'	Total/NA	Solid	5030C	
885-8372-6	BH24-35 4.0'	Total/NA	Solid	5030C	
885-8372-7	BH24-36 0.0'	Total/NA	Solid	5030C	
885-8372-8	BH24-36 2.0'	Total/NA	Solid	5030C	
885-8372-9	BH24-36 4.0'	Total/NA	Solid	5030C	
MB 885-8908/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8908/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8908/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 9046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-1	BH24-34 0.0'	Total/NA	Solid	8015M/D	8908
885-8372-2	BH24-34 2.0'	Total/NA	Solid	8015M/D	8908
885-8372-3	BH24-34 4.0'	Total/NA	Solid	8015M/D	8908
885-8372-4	BH24-35 0.0'	Total/NA	Solid	8015M/D	8908
885-8372-5	BH24-35 2.0'	Total/NA	Solid	8015M/D	8908
885-8372-6	BH24-35 4.0'	Total/NA	Solid	8015M/D	8908
885-8372-7	BH24-36 0.0'	Total/NA	Solid	8015M/D	8908
885-8372-8	BH24-36 2.0'	Total/NA	Solid	8015M/D	8908
885-8372-9	BH24-36 4.0'	Total/NA	Solid	8015M/D	8908
MB 885-8908/1-A	Method Blank	Total/NA	Solid	8015M/D	8908
LCS 885-8908/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8908

Analysis Batch: 9048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-1	BH24-34 0.0'	Total/NA	Solid	8021B	8908
885-8372-2	BH24-34 2.0'	Total/NA	Solid	8021B	8908
885-8372-3	BH24-34 4.0'	Total/NA	Solid	8021B	8908
885-8372-4	BH24-35 0.0'	Total/NA	Solid	8021B	8908
885-8372-5	BH24-35 2.0'	Total/NA	Solid	8021B	8908
885-8372-6	BH24-35 4.0'	Total/NA	Solid	8021B	8908
885-8372-7	BH24-36 0.0'	Total/NA	Solid	8021B	8908
885-8372-8	BH24-36 2.0'	Total/NA	Solid	8021B	8908
885-8372-9	BH24-36 4.0'	Total/NA	Solid	8021B	8908
MB 885-8908/1-A	Method Blank	Total/NA	Solid	8021B	8908
LCS 885-8908/3-A	Lab Control Sample	Total/NA	Solid	8021B	8908

GC Semi VOA

Analysis Batch: 8962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-1	BH24-34 0.0'	Total/NA	Solid	8015M/D	8970
885-8372-2	BH24-34 2.0'	Total/NA	Solid	8015M/D	8970
885-8372-3	BH24-34 4.0'	Total/NA	Solid	8015M/D	8970
885-8372-4	BH24-35 0.0'	Total/NA	Solid	8015M/D	8970
885-8372-5	BH24-35 2.0'	Total/NA	Solid	8015M/D	8970
885-8372-6	BH24-35 4.0'	Total/NA	Solid	8015M/D	8970

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

GC Semi VOA (Continued)

Analysis Batch: 8962 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-7	BH24-36 0.0'	Total/NA	Solid	8015M/D	8970
885-8372-8	BH24-36 2.0'	Total/NA	Solid	8015M/D	8970
885-8372-9	BH24-36 4.0'	Total/NA	Solid	8015M/D	8970
MB 885-8970/1-A	Method Blank	Total/NA	Solid	8015M/D	8970
LCS 885-8970/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8970

Prep Batch: 8970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-1	BH24-34 0.0'	Total/NA	Solid	SHAKE	
885-8372-2	BH24-34 2.0'	Total/NA	Solid	SHAKE	
885-8372-3	BH24-34 4.0'	Total/NA	Solid	SHAKE	
885-8372-4	BH24-35 0.0'	Total/NA	Solid	SHAKE	
885-8372-5	BH24-35 2.0'	Total/NA	Solid	SHAKE	
885-8372-6	BH24-35 4.0'	Total/NA	Solid	SHAKE	
885-8372-7	BH24-36 0.0'	Total/NA	Solid	SHAKE	
885-8372-8	BH24-36 2.0'	Total/NA	Solid	SHAKE	
885-8372-9	BH24-36 4.0'	Total/NA	Solid	SHAKE	
MB 885-8970/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8970/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 8993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-1	BH24-34 0.0'	Total/NA	Solid	300_Prep	
885-8372-2	BH24-34 2.0'	Total/NA	Solid	300_Prep	
885-8372-3	BH24-34 4.0'	Total/NA	Solid	300_Prep	
885-8372-4	BH24-35 0.0'	Total/NA	Solid	300_Prep	
885-8372-5	BH24-35 2.0'	Total/NA	Solid	300_Prep	
885-8372-6	BH24-35 4.0'	Total/NA	Solid	300_Prep	
885-8372-7	BH24-36 0.0'	Total/NA	Solid	300_Prep	
MB 885-8993/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-8993/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 9004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-8	BH24-36 2.0'	Total/NA	Solid	300_Prep	
885-8372-9	BH24-36 4.0'	Total/NA	Solid	300_Prep	
MB 885-9004/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9004/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-8372-8 MS	BH24-36 2.0'	Total/NA	Solid	300_Prep	
885-8372-8 MSD	BH24-36 2.0'	Total/NA	Solid	300_Prep	

Analysis Batch: 9019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-1	BH24-34 0.0'	Total/NA	Solid	300.0	8993
885-8372-2	BH24-34 2.0'	Total/NA	Solid	300.0	8993
885-8372-3	BH24-34 4.0'	Total/NA	Solid	300.0	8993
885-8372-4	BH24-35 0.0'	Total/NA	Solid	300.0	8993
885-8372-5	BH24-35 2.0'	Total/NA	Solid	300.0	8993
885-8372-6	BH24-35 4.0'	Total/NA	Solid	300.0	8993

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8372-1

HPLC/IC (Continued)

Analysis Batch: 9019 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-7	BH24-36 0.0'	Total/NA	Solid	300.0	8993
MB 885-8993/1-A	Method Blank	Total/NA	Solid	300.0	8993
LCS 885-8993/2-A	Lab Control Sample	Total/NA	Solid	300.0	8993

Analysis Batch: 9021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8372-8	BH24-36 2.0'	Total/NA	Solid	300.0	9004
885-8372-9	BH24-36 4.0'	Total/NA	Solid	300.0	9004
MB 885-9004/1-A	Method Blank	Total/NA	Solid	300.0	9004
MB 885-9021/24	Method Blank	Total/NA	Solid	300.0	
LCS 885-9004/2-A	Lab Control Sample	Total/NA	Solid	300.0	9004
MRL 885-9021/23	Lab Control Sample	Total/NA	Solid	300.0	
885-8372-8 MS	BH24-36 2.0'	Total/NA	Solid	300.0	9004
885-8372-8 MSD	BH24-36 2.0'	Total/NA	Solid	300.0	9004

Lab Chronicle

Client: Vertex
Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-34 0.0'
Lab Sample ID: 885-8372-1
Date Collected: 07/16/24 09:45
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 17:33
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 17:33
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 02:55
Total/NA	Prep	300_Prep			8993	KB	EET ALB	07/23/24 13:56
Total/NA	Analysis	300.0		20	9019	EH	EET ALB	07/24/24 01:06

Client Sample ID: BH24-34 2.0'
Lab Sample ID: 885-8372-2
Date Collected: 07/16/24 09:50
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 17:55
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 17:55
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 03:06
Total/NA	Prep	300_Prep			8993	KB	EET ALB	07/23/24 13:56
Total/NA	Analysis	300.0		20	9019	EH	EET ALB	07/24/24 01:19

Client Sample ID: BH24-34 4.0'
Lab Sample ID: 885-8372-3
Date Collected: 07/16/24 09:55
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 18:17
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 18:17
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 03:17
Total/NA	Prep	300_Prep			8993	KB	EET ALB	07/23/24 13:56
Total/NA	Analysis	300.0		20	9019	EH	EET ALB	07/24/24 01:31

Client Sample ID: BH24-35 0.0'
Lab Sample ID: 885-8372-4
Date Collected: 07/16/24 10:30
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 19:00

Lab Chronicle

Client: Vertex
Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-35 0.0'
Lab Sample ID: 885-8372-4
Date Collected: 07/16/24 10:30
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 19:00
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 03:28
Total/NA	Prep	300_Prep			8993	KB	EET ALB	07/23/24 13:56
Total/NA	Analysis	300.0		20	9019	EH	EET ALB	07/24/24 01:43

Client Sample ID: BH24-35 2.0'
Lab Sample ID: 885-8372-5
Date Collected: 07/16/24 10:35
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 19:22
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 19:22
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 03:40
Total/NA	Prep	300_Prep			8993	KB	EET ALB	07/23/24 13:56
Total/NA	Analysis	300.0		20	9019	EH	EET ALB	07/24/24 01:56

Client Sample ID: BH24-35 4.0'
Lab Sample ID: 885-8372-6
Date Collected: 07/16/24 10:40
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 19:44
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 19:44
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 04:02
Total/NA	Prep	300_Prep			8993	KB	EET ALB	07/23/24 13:56
Total/NA	Analysis	300.0		20	9019	EH	EET ALB	07/24/24 02:33

Client Sample ID: BH24-36 0.0'
Lab Sample ID: 885-8372-7
Date Collected: 07/16/24 10:55
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 20:05
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 20:05

Lab Chronicle

Client: Vertex
Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-36 0.0'
Lab Sample ID: 885-8372-7
Date Collected: 07/16/24 10:55
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 04:13
Total/NA	Prep	300_Prep			8993	KB	EET ALB	07/23/24 13:56
Total/NA	Analysis	300.0		20	9019	EH	EET ALB	07/24/24 02:45

Client Sample ID: BH24-36 2.0'
Lab Sample ID: 885-8372-8
Date Collected: 07/16/24 11:00
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 20:27
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 20:27
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 04:24
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 01:08

Client Sample ID: BH24-36 4.0'
Lab Sample ID: 885-8372-9
Date Collected: 07/16/24 11:05
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8015M/D		1	9046	RA	EET ALB	07/23/24 20:49
Total/NA	Prep	5030C			8908	JP	EET ALB	07/22/24 11:56
Total/NA	Analysis	8021B		1	9048	RA	EET ALB	07/23/24 20:49
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 04:35
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 01:45

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8372-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Drive, Carlsbad NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No Yes

# of Coolers: 1

Cooler Temp(including CF): 0.3+0.1=0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-8372 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.16.24	0945	Soil	BH24-34 0.0'	4oz	ICE	1										
	0950		BH24-34 2.0'			2										
	0955		BH24-34 4.0'			3										
	1030		BH24-35 0.0'			4										
	1035		BH24-35 2.0'			5										
	1040		BH24-35 4.0'			6										
	1055		BH24-36 0.0'			7										
	1100		BH24-36 2.0'			8										
↓	1105	↓	BH24-36 4.0'	↓	↓	9	↓	↓					↓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/19/24	0900				7/19/24	0700
7/19/24	1900			Courier	7/20/24	7:30

Remarks: Bill to Mack Energy
cc: Scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8372-1

Login Number: 8372 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 8/1/2024 11:29:37 AM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8373-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
8/1/2024 11:29:37 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8373-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 42
QC Association Summary 51
Lab Chronicle 59
Certification Summary 71
Chain of Custody 72
Receipt Checklists 78

Definitions/Glossary

Client: Vertex Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8373-1
Project: Dawson Creek State #2

Job ID: 885-8373-1 Eurofins Albuquerque

Job Narrative
885-8373-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/20/2024 7:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: BH24-38 2.0' (885-8373-5), BH24-38 4.0' (885-8373-6), BH24-39 0.0' (885-8373-7), BH24-39 2.0' (885-8373-8), BH24-39 4.0' (885-8373-9), BH24-40 0.0' (885-8373-10), (MB 885-8970/1-A) and (MB 885-8995/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: BH24-47 4.0' (885-8373-33) and (885-8376-A-6-B). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_DRO: Surrogate recovery for the following CCV is outside the lower control limit: (CCV 885-9050/22). Samples with failing low surrogate will be re-ran.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-37 0.0'

Date Collected: 07/17/24 09:45
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/24/24 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/22/24 16:43*	*07/24/24 23:07*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/24/24 23:07	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/24/24 23:07	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/24/24 23:07	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 16:43	07/24/24 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/22/24 16:43*	*07/24/24 23:07*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/23/24 11:11	07/24/24 04:45	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/23/24 11:11	07/24/24 04:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*126*		*62 - 134*	*07/23/24 11:11*	*07/24/24 04:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 02:22	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-37 20'

Date Collected: 07/17/24 09:50
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/22/24 16:43	07/25/24 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/22/24 16:43*	*07/25/24 00:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 00:17	1
Ethylbenzene	ND		0.048		mg/Kg		07/22/24 16:43	07/25/24 00:17	1
Toluene	ND		0.048		mg/Kg		07/22/24 16:43	07/25/24 00:17	1
Xylenes, Total	ND		0.097		mg/Kg		07/22/24 16:43	07/25/24 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/22/24 16:43*	*07/25/24 00:17*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 11:11	07/24/24 04:56	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 11:11	07/24/24 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*123*		*62 - 134*	*07/23/24 11:11*	*07/24/24 04:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 02:59	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-37 4.0'

Date Collected: 07/17/24 09:55
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/22/24 16:43	07/25/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/22/24 16:43*	*07/25/24 01:04*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 16:43	07/25/24 01:04	1
Ethylbenzene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 01:04	1
Toluene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 01:04	1
Xylenes, Total	ND		0.093		mg/Kg		07/22/24 16:43	07/25/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/22/24 16:43*	*07/25/24 01:04*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 11:11	07/24/24 05:07	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 11:11	07/24/24 05:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*129*		*62 - 134*	*07/23/24 11:11*	*07/24/24 05:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 03:11	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-38 0.0'

Date Collected: 07/17/24 10:00
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/25/24 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/22/24 16:43*	*07/25/24 01:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 16:43	07/25/24 01:28	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 01:28	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 01:28	1
Xylenes, Total	ND		0.093		mg/Kg		07/22/24 16:43	07/25/24 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/22/24 16:43*	*07/25/24 01:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/23/24 11:11	07/24/24 05:17	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/23/24 11:11	07/24/24 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*128*		*62 - 134*	*07/23/24 11:11*	*07/24/24 05:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 03:24	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-38 2.0'

Date Collected: 07/17/24 10:05
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/22/24 16:43	07/25/24 01:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/22/24 16:43*	*07/25/24 01:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 01:51	1
Ethylbenzene	ND		0.049		mg/Kg		07/22/24 16:43	07/25/24 01:51	1
Toluene	ND		0.049		mg/Kg		07/22/24 16:43	07/25/24 01:51	1
Xylenes, Total	ND		0.097		mg/Kg		07/22/24 16:43	07/25/24 01:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/22/24 16:43*	*07/25/24 01:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 11:11	07/24/24 05:28	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 11:11	07/24/24 05:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*272*	*S1+*	*62 - 134*	*07/23/24 11:11*	*07/24/24 05:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 03:36	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-38 4.0'

Date Collected: 07/17/24 10:10
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/22/24 16:43	07/25/24 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*07/22/24 16:43*	*07/25/24 02:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 02:14	1
Ethylbenzene	ND		0.048		mg/Kg		07/22/24 16:43	07/25/24 02:14	1
Toluene	ND		0.048		mg/Kg		07/22/24 16:43	07/25/24 02:14	1
Xylenes, Total	ND		0.097		mg/Kg		07/22/24 16:43	07/25/24 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/22/24 16:43*	*07/25/24 02:14*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 11:11	07/24/24 05:39	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 11:11	07/24/24 05:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*228*	*S1+*	*62 - 134*	*07/23/24 11:11*	*07/24/24 05:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 03:48	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-39 0.0'

Date Collected: 07/17/24 10:15
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/25/24 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*35 - 166*	*07/22/24 16:43*	*07/25/24 02:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 02:38	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 02:38	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 02:38	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 16:43	07/25/24 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/22/24 16:43*	*07/25/24 02:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/23/24 11:11	07/24/24 05:49	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/23/24 11:11	07/24/24 05:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*233*	*S1+*	*62 - 134*	*07/23/24 11:11*	*07/24/24 05:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 04:01	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-39 2.0'

Date Collected: 07/17/24 10:20
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/22/24 16:43	07/25/24 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/22/24 16:43*	*07/25/24 03:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 03:01	1
Ethylbenzene	ND		0.048		mg/Kg		07/22/24 16:43	07/25/24 03:01	1
Toluene	ND		0.048		mg/Kg		07/22/24 16:43	07/25/24 03:01	1
Xylenes, Total	ND		0.096		mg/Kg		07/22/24 16:43	07/25/24 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/22/24 16:43*	*07/25/24 03:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 14:22	07/23/24 21:18	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/23/24 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*246*	*S1+*	*62 - 134*	*07/23/24 14:22*	*07/23/24 21:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 04:13	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-39 4.0'

Date Collected: 07/17/24 10:25
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/22/24 16:43	07/25/24 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/22/24 16:43*	*07/25/24 03:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 16:43	07/25/24 03:25	1
Ethylbenzene	ND		0.050		mg/Kg		07/22/24 16:43	07/25/24 03:25	1
Toluene	ND		0.050		mg/Kg		07/22/24 16:43	07/25/24 03:25	1
Xylenes, Total	ND		0.099		mg/Kg		07/22/24 16:43	07/25/24 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/22/24 16:43*	*07/25/24 03:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/23/24 14:22	07/23/24 21:29	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/23/24 14:22	07/23/24 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*251*	*S1+*	*62 - 134*	*07/23/24 14:22*	*07/23/24 21:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 04:50	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-40 0.0'

Date Collected: 07/17/24 10:35
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-10

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/25/24 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/22/24 16:43*	*07/25/24 03:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 16:43	07/25/24 03:48	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 03:48	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 03:48	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 16:43	07/25/24 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/22/24 16:43*	*07/25/24 03:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/23/24 14:22	07/23/24 21:40	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/23/24 14:22	07/23/24 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*141*	*S1+*	*62 - 134*	*07/23/24 14:22*	*07/23/24 21:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		60		mg/Kg		07/23/24 16:11	07/24/24 05:02	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-40 2.0'

Date Collected: 07/17/24 10:40
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-11

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/22/24 16:43	07/25/24 04:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/22/24 16:43*	*07/25/24 04:11*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 16:43	07/25/24 04:11	1
Ethylbenzene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 04:11	1
Toluene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 04:11	1
Xylenes, Total	ND		0.091		mg/Kg		07/22/24 16:43	07/25/24 04:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/22/24 16:43*	*07/25/24 04:11*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 14:22	07/23/24 21:51	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/23/24 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*07/23/24 14:22*	*07/23/24 21:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 05:15	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-40 4.0'
Lab Sample ID: 885-8373-12
Date Collected: 07/17/24 10:45
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/25/24 04:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/22/24 16:43*	*07/25/24 04:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 04:35	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 04:35	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 04:35	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 16:43	07/25/24 04:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/22/24 16:43*	*07/25/24 04:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 14:22	07/23/24 22:02	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/23/24 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/23/24 14:22*	*07/23/24 22:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 05:27	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-41 0.0'
Lab Sample ID: 885-8373-13
Date Collected: 07/17/24 11:05
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/25/24 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/22/24 16:43*	*07/25/24 05:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 05:22	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 05:22	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 05:22	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 16:43	07/25/24 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/22/24 16:43*	*07/25/24 05:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/23/24 14:22	07/23/24 22:14	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 14:22	07/23/24 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*07/23/24 14:22*	*07/23/24 22:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63**		60		mg/Kg		07/23/24 16:11	07/24/24 05:39	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-41 2.0'
Lab Sample ID: 885-8373-14
Date Collected: 07/17/24 11:10
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/22/24 16:43	07/25/24 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*07/22/24 16:43*	*07/25/24 05:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 16:43	07/25/24 05:45	1
Ethylbenzene	ND		0.050		mg/Kg		07/22/24 16:43	07/25/24 05:45	1
Toluene	ND		0.050		mg/Kg		07/22/24 16:43	07/25/24 05:45	1
Xylenes, Total	ND		0.10		mg/Kg		07/22/24 16:43	07/25/24 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/22/24 16:43*	*07/25/24 05:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/23/24 14:22	07/23/24 22:25	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/23/24 14:22	07/23/24 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/23/24 14:22*	*07/23/24 22:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 05:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-41 4.0'

Date Collected: 07/17/24 11:20
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-15

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/22/24 16:43	07/25/24 06:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/22/24 16:43*	*07/25/24 06:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 16:43	07/25/24 06:08	1
Ethylbenzene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 06:08	1
Toluene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 06:08	1
Xylenes, Total	ND		0.092		mg/Kg		07/22/24 16:43	07/25/24 06:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/22/24 16:43*	*07/25/24 06:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 14:22	07/23/24 22:36	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 14:22	07/23/24 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/23/24 14:22*	*07/23/24 22:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 06:04	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-42 0.0'
Lab Sample ID: 885-8373-16
Date Collected: 07/17/24 11:30
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/22/24 16:43	07/25/24 06:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/22/24 16:43*	*07/25/24 06:32*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 16:43	07/25/24 06:32	1
Ethylbenzene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 06:32	1
Toluene	ND		0.046		mg/Kg		07/22/24 16:43	07/25/24 06:32	1
Xylenes, Total	ND		0.093		mg/Kg		07/22/24 16:43	07/25/24 06:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/22/24 16:43*	*07/25/24 06:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 14:22	07/23/24 22:47	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 14:22	07/23/24 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/23/24 14:22*	*07/23/24 22:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/23/24 16:11	07/24/24 06:17	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-42 2.0'

Date Collected: 07/17/24 11:35
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-17

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/22/24 16:43	07/25/24 06:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*07/22/24 16:43*	*07/25/24 06:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 16:43	07/25/24 06:55	1
Ethylbenzene	ND		0.050		mg/Kg		07/22/24 16:43	07/25/24 06:55	1
Toluene	ND		0.050		mg/Kg		07/22/24 16:43	07/25/24 06:55	1
Xylenes, Total	ND		0.10		mg/Kg		07/22/24 16:43	07/25/24 06:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/22/24 16:43*	*07/25/24 06:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 14:22	07/23/24 23:09	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/23/24 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/23/24 14:22*	*07/23/24 23:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		07/23/24 16:11	07/24/24 06:29	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-42 4.0'
Lab Sample ID: 885-8373-18
Date Collected: 07/17/24 11:40
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/25/24 07:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/22/24 16:43*	*07/25/24 07:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/22/24 16:43	07/25/24 07:18	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 07:18	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 07:18	1
Xylenes, Total	ND		0.094		mg/Kg		07/22/24 16:43	07/25/24 07:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/22/24 16:43*	*07/25/24 07:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 14:22	07/23/24 23:20	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 14:22	07/23/24 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/23/24 14:22*	*07/23/24 23:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94**		60		mg/Kg		07/23/24 16:11	07/24/24 06:41	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-43 0.0'

Date Collected: 07/18/24 09:30
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-19

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/22/24 16:43	07/25/24 07:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/22/24 16:43*	*07/25/24 07:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/22/24 16:43	07/25/24 07:42	1
Ethylbenzene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 07:42	1
Toluene	ND		0.047		mg/Kg		07/22/24 16:43	07/25/24 07:42	1
Xylenes, Total	ND		0.093		mg/Kg		07/22/24 16:43	07/25/24 07:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/22/24 16:43*	*07/25/24 07:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 14:22	07/23/24 23:32	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 14:22	07/23/24 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/23/24 14:22*	*07/23/24 23:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 10:38	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-43 2.0'
Lab Sample ID: 885-8373-20
Date Collected: 07/18/24 09:35
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/23/24 10:56	07/24/24 12:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/23/24 10:56*	*07/24/24 12:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/23/24 10:56	07/24/24 12:08	1
Ethylbenzene	ND		0.050		mg/Kg		07/23/24 10:56	07/24/24 12:08	1
Toluene	ND		0.050		mg/Kg		07/23/24 10:56	07/24/24 12:08	1
Xylenes, Total	ND		0.099		mg/Kg		07/23/24 10:56	07/24/24 12:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/23/24 10:56*	*07/24/24 12:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/23/24 14:22	07/23/24 23:43	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/23/24 14:22	07/23/24 23:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/23/24 14:22*	*07/23/24 23:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 11:17	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-43 4.0'
Lab Sample ID: 885-8373-21
Date Collected: 07/18/24 09:40
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/23/24 10:56	07/24/24 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/23/24 10:56*	*07/24/24 13:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 13:18	1
Ethylbenzene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 13:18	1
Toluene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 13:18	1
Xylenes, Total	ND		0.097		mg/Kg		07/23/24 10:56	07/24/24 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/23/24 10:56*	*07/24/24 13:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 14:22	07/23/24 23:54	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/23/24 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/23/24 14:22*	*07/23/24 23:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**96**		60		mg/Kg		07/24/24 08:19	07/24/24 11:55	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-44 0.0'

Date Collected: 07/18/24 09:55
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-22

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/23/24 10:56	07/24/24 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/23/24 10:56*	*07/24/24 14:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 14:29	1
Ethylbenzene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 14:29	1
Toluene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 14:29	1
Xylenes, Total	ND		0.098		mg/Kg		07/23/24 10:56	07/24/24 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/23/24 10:56*	*07/24/24 14:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/23/24 14:22	07/24/24 00:05	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/23/24 14:22	07/24/24 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*07/23/24 14:22*	*07/24/24 00:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 12:08	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-44 2.0'
Lab Sample ID: 885-8373-23
Date Collected: 07/18/24 10:00
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/23/24 10:56	07/24/24 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/23/24 10:56*	*07/24/24 14:53*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/23/24 10:56	07/24/24 14:53	1
Ethylbenzene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 14:53	1
Toluene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 14:53	1
Xylenes, Total	ND		0.099		mg/Kg		07/23/24 10:56	07/24/24 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/23/24 10:56*	*07/24/24 14:53*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 14:22	07/24/24 00:16	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/24/24 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/23/24 14:22*	*07/24/24 00:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76**		60		mg/Kg		07/24/24 08:19	07/24/24 12:47	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-44 4.0'

Date Collected: 07/18/24 10:05
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-24

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/23/24 10:56	07/24/24 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/23/24 10:56*	*07/24/24 15:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 15:16	1
Ethylbenzene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 15:16	1
Toluene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 15:16	1
Xylenes, Total	ND		0.097		mg/Kg		07/23/24 10:56	07/24/24 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/23/24 10:56*	*07/24/24 15:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/23/24 14:22	07/24/24 00:27	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 14:22	07/24/24 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/23/24 14:22*	*07/24/24 00:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 13:00	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-45 0.0'
Lab Sample ID: 885-8373-25
Date Collected: 07/18/24 10:15
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/23/24 10:56	07/24/24 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/23/24 10:56*	*07/24/24 15:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 15:40	1
Ethylbenzene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 15:40	1
Toluene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 15:40	1
Xylenes, Total	ND		0.097		mg/Kg		07/23/24 10:56	07/24/24 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/23/24 10:56*	*07/24/24 15:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 14:22	07/24/24 00:39	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/24/24 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*07/23/24 14:22*	*07/24/24 00:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 13:13	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-45 2.0'
Lab Sample ID: 885-8373-26
Date Collected: 07/18/24 10:20
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/23/24 10:56	07/24/24 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/23/24 10:56*	*07/24/24 16:04*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 16:04	1
Ethylbenzene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 16:04	1
Toluene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 16:04	1
Xylenes, Total	ND		0.097		mg/Kg		07/23/24 10:56	07/24/24 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/23/24 10:56*	*07/24/24 16:04*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 14:22	07/24/24 00:50	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 14:22	07/24/24 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/23/24 14:22*	*07/24/24 00:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 13:25	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-45 4.0'

Date Collected: 07/18/24 10:25
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-27

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/23/24 10:56	07/24/24 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/23/24 10:56*	*07/24/24 16:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/23/24 10:56	07/24/24 16:27	1
Ethylbenzene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 16:27	1
Toluene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 16:27	1
Xylenes, Total	ND		0.094		mg/Kg		07/23/24 10:56	07/24/24 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/23/24 10:56*	*07/24/24 16:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/23/24 14:22	07/24/24 01:01	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 14:22	07/24/24 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/23/24 14:22*	*07/24/24 01:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 13:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-46 0.0'

Date Collected: 07/18/24 10:40
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-28

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/23/24 10:56	07/24/24 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/23/24 10:56*	*07/24/24 16:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/23/24 10:56	07/24/24 16:51	1
Ethylbenzene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 16:51	1
Toluene	ND		0.049		mg/Kg		07/23/24 10:56	07/24/24 16:51	1
Xylenes, Total	ND		0.099		mg/Kg		07/23/24 10:56	07/24/24 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/23/24 10:56*	*07/24/24 16:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/23/24 15:16	07/24/24 15:35	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 15:16	07/24/24 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*07/23/24 15:16*	*07/24/24 15:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 13:51	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-46 2.0'
Lab Sample ID: 885-8373-29
Date Collected: 07/18/24 10:45
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/23/24 10:56	07/24/24 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/23/24 10:56*	*07/24/24 17:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 17:38	1
Ethylbenzene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 17:38	1
Toluene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 17:38	1
Xylenes, Total	ND		0.097		mg/Kg		07/23/24 10:56	07/24/24 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/23/24 10:56*	*07/24/24 17:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		07/23/24 15:16	07/24/24 15:46	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/23/24 15:16	07/24/24 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*07/23/24 15:16*	*07/24/24 15:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 14:04	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-46 4.0'
Lab Sample ID: 885-8373-30
Date Collected: 07/18/24 10:50
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/23/24 10:56	07/24/24 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/23/24 10:56*	*07/24/24 18:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 18:02	1
Ethylbenzene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 18:02	1
Toluene	ND		0.048		mg/Kg		07/23/24 10:56	07/24/24 18:02	1
Xylenes, Total	ND		0.095		mg/Kg		07/23/24 10:56	07/24/24 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/23/24 10:56*	*07/24/24 18:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 15:16	07/24/24 15:57	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 15:16	07/24/24 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*128*		*62 - 134*	*07/23/24 15:16*	*07/24/24 15:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 14:17	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-47 0.0'
Lab Sample ID: 885-8373-31
Date Collected: 07/18/24 11:05
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/23/24 10:56	07/24/24 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/23/24 10:56*	*07/24/24 18:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 18:25	1
Ethylbenzene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 18:25	1
Toluene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 18:25	1
Xylenes, Total	ND		0.094		mg/Kg		07/23/24 10:56	07/24/24 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/23/24 10:56*	*07/24/24 18:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 15:16	07/24/24 16:07	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 15:16	07/24/24 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*120*		*62 - 134*	*07/23/24 15:16*	*07/24/24 16:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 14:30	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-47 2.0'
Lab Sample ID: 885-8373-32
Date Collected: 07/18/24 11:10
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/23/24 10:56	07/24/24 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/23/24 10:56*	*07/24/24 18:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/23/24 10:56	07/24/24 18:49	1
Ethylbenzene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 18:49	1
Toluene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 18:49	1
Xylenes, Total	ND		0.095		mg/Kg		07/23/24 10:56	07/24/24 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/23/24 10:56*	*07/24/24 18:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 15:16	07/24/24 16:18	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 15:16	07/24/24 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*07/23/24 15:16*	*07/24/24 16:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 14:43	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-47 4.0'

Date Collected: 07/18/24 11:15
Date Received: 07/20/24 07:30

Lab Sample ID: 885-8373-33

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/23/24 10:56	07/24/24 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/23/24 10:56*	*07/24/24 19:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/23/24 10:56	07/24/24 19:12	1
Ethylbenzene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 19:12	1
Toluene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 19:12	1
Xylenes, Total	ND		0.094		mg/Kg		07/23/24 10:56	07/24/24 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/23/24 10:56*	*07/24/24 19:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/23/24 15:16	07/24/24 16:49	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 15:16	07/24/24 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*136*	*S1+*	*62 - 134*	*07/23/24 15:16*	*07/24/24 16:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61		mg/Kg		07/24/24 08:19	07/24/24 15:21	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-48 0.0'
Lab Sample ID: 885-8373-34
Date Collected: 07/18/24 11:25
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/23/24 10:56	07/24/24 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/23/24 10:56*	*07/24/24 19:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/23/24 10:56	07/24/24 19:36	1
Ethylbenzene	ND		0.050		mg/Kg		07/23/24 10:56	07/24/24 19:36	1
Toluene	ND		0.050		mg/Kg		07/23/24 10:56	07/24/24 19:36	1
Xylenes, Total	ND		0.099		mg/Kg		07/23/24 10:56	07/24/24 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/23/24 10:56*	*07/24/24 19:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 15:16	07/24/24 16:59	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 15:16	07/24/24 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*110*		*62 - 134*	*07/23/24 15:16*	*07/24/24 16:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 15:34	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-48 2.0'
Lab Sample ID: 885-8373-35
Date Collected: 07/18/24 11:30
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/23/24 10:56	07/24/24 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/23/24 10:56*	*07/24/24 19:59*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/23/24 10:56	07/24/24 19:59	1
Ethylbenzene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 19:59	1
Toluene	ND		0.047		mg/Kg		07/23/24 10:56	07/24/24 19:59	1
Xylenes, Total	ND		0.094		mg/Kg		07/23/24 10:56	07/24/24 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/23/24 10:56*	*07/24/24 19:59*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/23/24 15:16	07/24/24 17:10	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/23/24 15:16	07/24/24 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*07/23/24 15:16*	*07/24/24 17:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 15:47	20

Client Sample Results

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-48 4.0'
Lab Sample ID: 885-8373-36
Date Collected: 07/18/24 11:35
Matrix: Solid
Date Received: 07/20/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/23/24 13:05	07/24/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/23/24 13:05*	*07/24/24 14:50*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/23/24 13:05	07/24/24 14:50	1
Ethylbenzene	ND		0.049		mg/Kg		07/23/24 13:05	07/24/24 14:50	1
Toluene	ND		0.049		mg/Kg		07/23/24 13:05	07/24/24 14:50	1
Xylenes, Total	ND		0.098		mg/Kg		07/23/24 13:05	07/24/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*07/23/24 13:05*	*07/24/24 14:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/23/24 15:16	07/24/24 17:21	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/23/24 15:16	07/24/24 17:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*110*		*62 - 134*	*07/23/24 15:16*	*07/24/24 17:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 08:19	07/24/24 16:00	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-8943/1-A
Matrix: Solid
Analysis Batch: 9058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8943

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/22/24 16:43	07/24/24 21:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/22/24 16:43*	*07/24/24 21:33*	*1*

Lab Sample ID: LCS 885-8943/2-A
Matrix: Solid
Analysis Batch: 9058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8943

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.7		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*202*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8969/1-A
Matrix: Solid
Analysis Batch: 9058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8969

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/23/24 10:56	07/24/24 10:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/23/24 10:56*	*07/24/24 10:34*	*1*

Lab Sample ID: LCS 885-8969/3-A
Matrix: Solid
Analysis Batch: 9058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8969

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	23.0		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*194*	*S1+*	*35 - 166*

Lab Sample ID: 885-8373-20 MS
Matrix: Solid
Analysis Batch: 9058

Client Sample ID: BH24-43 2.0'
Prep Type: Total/NA
Prep Batch: 8969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.7	22.7		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*204*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-8373-20 MSD
Matrix: Solid
Analysis Batch: 9058

Client Sample ID: BH24-43 2.0'
Prep Type: Total/NA
Prep Batch: 8969

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.8	24.8		mg/Kg		100	70 - 130	9	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-8985/1-A
Matrix: Solid
Analysis Batch: 9162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8985

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/23/24 13:05	07/24/24 14:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/23/24 13:05*	*07/24/24 14:28*	*1*

Lab Sample ID: LCS 885-8985/2-A
Matrix: Solid
Analysis Batch: 9162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8985

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.6		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*212*	*S1+*	*35 - 166*

Lab Sample ID: 885-8373-36 MS
Matrix: Solid
Analysis Batch: 9162

Client Sample ID: BH24-48 4.0'
Prep Type: Total/NA
Prep Batch: 8985

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.6	25.1		mg/Kg		102	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*230*	*S1+*	*35 - 166*

Lab Sample ID: 885-8373-36 MSD
Matrix: Solid
Analysis Batch: 9162

Client Sample ID: BH24-48 4.0'
Prep Type: Total/NA
Prep Batch: 8985

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.4	23.0		mg/Kg		94	70 - 130	9	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*209*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-8943/1-A
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8943

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/22/24 16:43	07/24/24 21:33	1
Ethylbenzene	ND		0.050		mg/Kg		07/22/24 16:43	07/24/24 21:33	1
Toluene	ND		0.050		mg/Kg		07/22/24 16:43	07/24/24 21:33	1
Xylenes, Total	ND		0.10		mg/Kg		07/22/24 16:43	07/24/24 21:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/22/24 16:43*	*07/24/24 21:33*	*1*

Lab Sample ID: LCS 885-8943/3-A
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8943

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.945		mg/Kg		94	70 - 130		
Ethylbenzene			1.00	0.867		mg/Kg		87	70 - 130		
m,p-Xylene			2.00	1.76		mg/Kg		88	70 - 130		
o-Xylene			1.00	0.855		mg/Kg		86	70 - 130		
Toluene			1.00	0.893		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: 885-8373-1 MS
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: BH24-37 0.0'
Prep Type: Total/NA
Prep Batch: 8943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.935	0.857		mg/Kg		92	70 - 130		
Ethylbenzene	ND		0.935	0.806		mg/Kg		86	70 - 130		
m,p-Xylene	ND		1.87	1.60		mg/Kg		84	70 - 130		
o-Xylene	ND		0.935	0.796		mg/Kg		85	70 - 130		
Toluene	ND		0.935	0.805		mg/Kg		85	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*

Lab Sample ID: 885-8373-1 MSD
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: BH24-37 0.0'
Prep Type: Total/NA
Prep Batch: 8943

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.939	0.915		mg/Kg		97	70 - 130	7	20
Ethylbenzene	ND		0.939	0.852		mg/Kg		91	70 - 130	5	20
m,p-Xylene	ND		1.88	1.71		mg/Kg		90	70 - 130	7	20
o-Xylene	ND		0.939	0.842		mg/Kg		90	70 - 130	6	20
Toluene	ND		0.939	0.869		mg/Kg		91	70 - 130	8	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-8373-1 MSD
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: BH24-37 0.0'
Prep Type: Total/NA
Prep Batch: 8943

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

Lab Sample ID: MB 885-8969/1-A
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8969

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/23/24 10:56	07/24/24 10:34	1
Ethylbenzene	ND		0.050		mg/Kg		07/23/24 10:56	07/24/24 10:34	1
Toluene	ND		0.050		mg/Kg		07/23/24 10:56	07/24/24 10:34	1
Xylenes, Total	ND		0.10		mg/Kg		07/23/24 10:56	07/24/24 10:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/23/24 10:56*	*07/24/24 10:34*	*1*

Lab Sample ID: LCS 885-8969/4-A
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8969

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.902		mg/Kg		90	70 - 130		
Ethylbenzene			1.00	0.834		mg/Kg		83	70 - 130		
m,p-Xylene			2.00	1.68		mg/Kg		84	70 - 130		
o-Xylene			1.00	0.811		mg/Kg		81	70 - 130		
Toluene			1.00	0.838		mg/Kg		84	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*

Lab Sample ID: 885-8373-21 MS
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: BH24-43 4.0'
Prep Type: Total/NA
Prep Batch: 8969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.971	0.960		mg/Kg		99	70 - 130		
Ethylbenzene	ND		0.971	0.911		mg/Kg		94	70 - 130		
m,p-Xylene	ND		1.94	1.81		mg/Kg		92	70 - 130		
o-Xylene	ND		0.971	0.883		mg/Kg		91	70 - 130		
Toluene	ND		0.971	0.913		mg/Kg		93	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-8373-21 MSD
Matrix: Solid
Analysis Batch: 9059

Client Sample ID: BH24-43 4.0'
Prep Type: Total/NA
Prep Batch: 8969

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.970	0.955		mg/Kg		99	70 - 130	1	20
Ethylbenzene	ND		0.970	0.904		mg/Kg		93	70 - 130	1	20
m,p-Xylene	ND		1.94	1.82		mg/Kg		93	70 - 130	1	20
o-Xylene	ND		0.970	0.895		mg/Kg		92	70 - 130	1	20
Toluene	ND		0.970	0.898		mg/Kg		91	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*

Lab Sample ID: MB 885-8985/1-A
Matrix: Solid
Analysis Batch: 9163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8985

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/23/24 13:05	07/24/24 14:28	1
Ethylbenzene	ND		0.050		mg/Kg		07/23/24 13:05	07/24/24 14:28	1
Toluene	ND		0.050		mg/Kg		07/23/24 13:05	07/24/24 14:28	1
Xylenes, Total	ND		0.10		mg/Kg		07/23/24 13:05	07/24/24 14:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*07/23/24 13:05*	*07/24/24 14:28*	*1*

Lab Sample ID: LCS 885-8985/3-A
Matrix: Solid
Analysis Batch: 9163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8985

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.913		mg/Kg		91	70 - 130		
Ethylbenzene			1.00	0.913		mg/Kg		91	70 - 130		
m,p-Xylene			2.00	1.82		mg/Kg		91	70 - 130		
o-Xylene			1.00	0.909		mg/Kg		91	70 - 130		
Toluene			1.00	0.914		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-8970/1-A
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8970

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 11:11	07/24/24 01:46	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 11:11	07/24/24 01:46	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-8970/1-A
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8970

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	137	S1+	62 - 134	07/23/24 11:11	07/24/24 01:46	1

Lab Sample ID: LCS 885-8970/2-A
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8970

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	46.1		mg/Kg		92	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	94		62 - 134

Lab Sample ID: 885-8373-7 MS
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: BH24-39 0.0'
Prep Type: Total/NA
Prep Batch: 8970

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		46.3	42.9		mg/Kg		93	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	100		62 - 134

Lab Sample ID: 885-8373-7 MSD
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: BH24-39 0.0'
Prep Type: Total/NA
Prep Batch: 8970

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		45.3	41.1		mg/Kg		91	44 - 136	4	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Lab Sample ID: MB 885-8995/1-A
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8995

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 14:22	07/23/24 20:55	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 14:22	07/23/24 20:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	246	S1+	62 - 134	07/23/24 14:22	07/23/24 20:55	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-8995/2-A
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8995

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	46.1		mg/Kg		92	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*

Lab Sample ID: 885-8373-27 MS
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: BH24-45 4.0'
Prep Type: Total/NA
Prep Batch: 8995

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		48.1	46.1		mg/Kg		96	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*

Lab Sample ID: 885-8373-27 MSD
Matrix: Solid
Analysis Batch: 8962

Client Sample ID: BH24-45 4.0'
Prep Type: Total/NA
Prep Batch: 8995

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.1	44.6		mg/Kg		95	44 - 136	3	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*

Lab Sample ID: MB 885-8999/1-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8999

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/23/24 15:16	07/24/24 15:14	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/23/24 15:16	07/24/24 15:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/23/24 15:16*	*07/24/24 15:14*	*1*

Lab Sample ID: LCS 885-8999/2-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8999

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	45.4		mg/Kg		91	60 - 135		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-8999/2-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8999

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	94		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9004/1-A
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9004

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		07/23/24 16:11	07/24/24 00:43	1

Lab Sample ID: LCS 885-9004/2-A
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9004

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.2		mg/Kg		95	90 - 110		

Lab Sample ID: 885-8373-1 MS
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: BH24-37 0.0'
Prep Type: Total/NA
Prep Batch: 9004

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		30.0	ND		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-8373-1 MSD
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: BH24-37 0.0'
Prep Type: Total/NA
Prep Batch: 9004

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		29.8	ND		mg/Kg		NC	50 - 150	NC	20

Lab Sample ID: MB 885-9021/24
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			07/23/24 08:59	1

Lab Sample ID: MRL 885-9021/23
Matrix: Solid
Analysis Batch: 9021

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.522		mg/L		104	50 - 150		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-9028/1-A
Matrix: Solid
Analysis Batch: 9034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9028

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/24/24 08:19	07/24/24 10:13	1

Lab Sample ID: LCS 885-9028/2-A
Matrix: Solid
Analysis Batch: 9034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9028

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.1		mg/Kg		94	90 - 110		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

GC VOA

Prep Batch: 8943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-1	BH24-37 0.0'	Total/NA	Solid	5030C	
885-8373-2	BH24-37 20'	Total/NA	Solid	5030C	
885-8373-3	BH24-37 4.0'	Total/NA	Solid	5030C	
885-8373-4	BH24-38 0.0'	Total/NA	Solid	5030C	
885-8373-5	BH24-38 2.0'	Total/NA	Solid	5030C	
885-8373-6	BH24-38 4.0'	Total/NA	Solid	5030C	
885-8373-7	BH24-39 0.0'	Total/NA	Solid	5030C	
885-8373-8	BH24-39 2.0'	Total/NA	Solid	5030C	
885-8373-9	BH24-39 4.0'	Total/NA	Solid	5030C	
885-8373-10	BH24-40 0.0'	Total/NA	Solid	5030C	
885-8373-11	BH24-40 2.0'	Total/NA	Solid	5030C	
885-8373-12	BH24-40 4.0'	Total/NA	Solid	5030C	
885-8373-13	BH24-41 0.0'	Total/NA	Solid	5030C	
885-8373-14	BH24-41 2.0'	Total/NA	Solid	5030C	
885-8373-15	BH24-41 4.0'	Total/NA	Solid	5030C	
885-8373-16	BH24-42 0.0'	Total/NA	Solid	5030C	
885-8373-17	BH24-42 2.0'	Total/NA	Solid	5030C	
885-8373-18	BH24-42 4.0'	Total/NA	Solid	5030C	
885-8373-19	BH24-43 0.0'	Total/NA	Solid	5030C	
MB 885-8943/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8943/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8943/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8373-1 MS	BH24-37 0.0'	Total/NA	Solid	5030C	
885-8373-1 MSD	BH24-37 0.0'	Total/NA	Solid	5030C	

Prep Batch: 8969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-20	BH24-43 2.0'	Total/NA	Solid	5030C	
885-8373-21	BH24-43 4.0'	Total/NA	Solid	5030C	
885-8373-22	BH24-44 0.0'	Total/NA	Solid	5030C	
885-8373-23	BH24-44 2.0'	Total/NA	Solid	5030C	
885-8373-24	BH24-44 4.0'	Total/NA	Solid	5030C	
885-8373-25	BH24-45 0.0'	Total/NA	Solid	5030C	
885-8373-26	BH24-45 2.0'	Total/NA	Solid	5030C	
885-8373-27	BH24-45 4.0'	Total/NA	Solid	5030C	
885-8373-28	BH24-46 0.0'	Total/NA	Solid	5030C	
885-8373-29	BH24-46 2.0'	Total/NA	Solid	5030C	
885-8373-30	BH24-46 4.0'	Total/NA	Solid	5030C	
885-8373-31	BH24-47 0.0'	Total/NA	Solid	5030C	
885-8373-32	BH24-47 2.0'	Total/NA	Solid	5030C	
885-8373-33	BH24-47 4.0'	Total/NA	Solid	5030C	
885-8373-34	BH24-48 0.0'	Total/NA	Solid	5030C	
885-8373-35	BH24-48 2.0'	Total/NA	Solid	5030C	
MB 885-8969/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8969/3-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8969/4-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8373-20 MS	BH24-43 2.0'	Total/NA	Solid	5030C	
885-8373-20 MSD	BH24-43 2.0'	Total/NA	Solid	5030C	
885-8373-21 MS	BH24-43 4.0'	Total/NA	Solid	5030C	
885-8373-21 MSD	BH24-43 4.0'	Total/NA	Solid	5030C	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

GC VOA

Prep Batch: 8985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-36	BH24-48 4.0'	Total/NA	Solid	5030C	
MB 885-8985/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-8985/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-8985/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8373-36 MS	BH24-48 4.0'	Total/NA	Solid	5030C	
885-8373-36 MSD	BH24-48 4.0'	Total/NA	Solid	5030C	

Analysis Batch: 9058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-1	BH24-37 0.0'	Total/NA	Solid	8015M/D	8943
885-8373-2	BH24-37 20'	Total/NA	Solid	8015M/D	8943
885-8373-3	BH24-37 4.0'	Total/NA	Solid	8015M/D	8943
885-8373-4	BH24-38 0.0'	Total/NA	Solid	8015M/D	8943
885-8373-5	BH24-38 2.0'	Total/NA	Solid	8015M/D	8943
885-8373-6	BH24-38 4.0'	Total/NA	Solid	8015M/D	8943
885-8373-7	BH24-39 0.0'	Total/NA	Solid	8015M/D	8943
885-8373-8	BH24-39 2.0'	Total/NA	Solid	8015M/D	8943
885-8373-9	BH24-39 4.0'	Total/NA	Solid	8015M/D	8943
885-8373-10	BH24-40 0.0'	Total/NA	Solid	8015M/D	8943
885-8373-11	BH24-40 2.0'	Total/NA	Solid	8015M/D	8943
885-8373-12	BH24-40 4.0'	Total/NA	Solid	8015M/D	8943
885-8373-13	BH24-41 0.0'	Total/NA	Solid	8015M/D	8943
885-8373-14	BH24-41 2.0'	Total/NA	Solid	8015M/D	8943
885-8373-15	BH24-41 4.0'	Total/NA	Solid	8015M/D	8943
885-8373-16	BH24-42 0.0'	Total/NA	Solid	8015M/D	8943
885-8373-17	BH24-42 2.0'	Total/NA	Solid	8015M/D	8943
885-8373-18	BH24-42 4.0'	Total/NA	Solid	8015M/D	8943
885-8373-19	BH24-43 0.0'	Total/NA	Solid	8015M/D	8943
885-8373-20	BH24-43 2.0'	Total/NA	Solid	8015M/D	8969
885-8373-21	BH24-43 4.0'	Total/NA	Solid	8015M/D	8969
885-8373-22	BH24-44 0.0'	Total/NA	Solid	8015M/D	8969
885-8373-23	BH24-44 2.0'	Total/NA	Solid	8015M/D	8969
885-8373-24	BH24-44 4.0'	Total/NA	Solid	8015M/D	8969
885-8373-25	BH24-45 0.0'	Total/NA	Solid	8015M/D	8969
885-8373-26	BH24-45 2.0'	Total/NA	Solid	8015M/D	8969
885-8373-27	BH24-45 4.0'	Total/NA	Solid	8015M/D	8969
885-8373-28	BH24-46 0.0'	Total/NA	Solid	8015M/D	8969
885-8373-29	BH24-46 2.0'	Total/NA	Solid	8015M/D	8969
885-8373-30	BH24-46 4.0'	Total/NA	Solid	8015M/D	8969
885-8373-31	BH24-47 0.0'	Total/NA	Solid	8015M/D	8969
885-8373-32	BH24-47 2.0'	Total/NA	Solid	8015M/D	8969
885-8373-33	BH24-47 4.0'	Total/NA	Solid	8015M/D	8969
885-8373-34	BH24-48 0.0'	Total/NA	Solid	8015M/D	8969
885-8373-35	BH24-48 2.0'	Total/NA	Solid	8015M/D	8969
MB 885-8943/1-A	Method Blank	Total/NA	Solid	8015M/D	8943
MB 885-8969/1-A	Method Blank	Total/NA	Solid	8015M/D	8969
LCS 885-8943/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8943
LCS 885-8969/3-A	Lab Control Sample	Total/NA	Solid	8015M/D	8969
885-8373-20 MS	BH24-43 2.0'	Total/NA	Solid	8015M/D	8969
885-8373-20 MSD	BH24-43 2.0'	Total/NA	Solid	8015M/D	8969

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

GC VOA

Analysis Batch: 9059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-1	BH24-37 0.0'	Total/NA	Solid	8021B	8943
885-8373-2	BH24-37 20'	Total/NA	Solid	8021B	8943
885-8373-3	BH24-37 4.0'	Total/NA	Solid	8021B	8943
885-8373-4	BH24-38 0.0'	Total/NA	Solid	8021B	8943
885-8373-5	BH24-38 2.0'	Total/NA	Solid	8021B	8943
885-8373-6	BH24-38 4.0'	Total/NA	Solid	8021B	8943
885-8373-7	BH24-39 0.0'	Total/NA	Solid	8021B	8943
885-8373-8	BH24-39 2.0'	Total/NA	Solid	8021B	8943
885-8373-9	BH24-39 4.0'	Total/NA	Solid	8021B	8943
885-8373-10	BH24-40 0.0'	Total/NA	Solid	8021B	8943
885-8373-11	BH24-40 2.0'	Total/NA	Solid	8021B	8943
885-8373-12	BH24-40 4.0'	Total/NA	Solid	8021B	8943
885-8373-13	BH24-41 0.0'	Total/NA	Solid	8021B	8943
885-8373-14	BH24-41 2.0'	Total/NA	Solid	8021B	8943
885-8373-15	BH24-41 4.0'	Total/NA	Solid	8021B	8943
885-8373-16	BH24-42 0.0'	Total/NA	Solid	8021B	8943
885-8373-17	BH24-42 2.0'	Total/NA	Solid	8021B	8943
885-8373-18	BH24-42 4.0'	Total/NA	Solid	8021B	8943
885-8373-19	BH24-43 0.0'	Total/NA	Solid	8021B	8943
885-8373-20	BH24-43 2.0'	Total/NA	Solid	8021B	8969
885-8373-21	BH24-43 4.0'	Total/NA	Solid	8021B	8969
885-8373-22	BH24-44 0.0'	Total/NA	Solid	8021B	8969
885-8373-23	BH24-44 2.0'	Total/NA	Solid	8021B	8969
885-8373-24	BH24-44 4.0'	Total/NA	Solid	8021B	8969
885-8373-25	BH24-45 0.0'	Total/NA	Solid	8021B	8969
885-8373-26	BH24-45 2.0'	Total/NA	Solid	8021B	8969
885-8373-27	BH24-45 4.0'	Total/NA	Solid	8021B	8969
885-8373-28	BH24-46 0.0'	Total/NA	Solid	8021B	8969
885-8373-29	BH24-46 2.0'	Total/NA	Solid	8021B	8969
885-8373-30	BH24-46 4.0'	Total/NA	Solid	8021B	8969
885-8373-31	BH24-47 0.0'	Total/NA	Solid	8021B	8969
885-8373-32	BH24-47 2.0'	Total/NA	Solid	8021B	8969
885-8373-33	BH24-47 4.0'	Total/NA	Solid	8021B	8969
885-8373-34	BH24-48 0.0'	Total/NA	Solid	8021B	8969
885-8373-35	BH24-48 2.0'	Total/NA	Solid	8021B	8969
MB 885-8943/1-A	Method Blank	Total/NA	Solid	8021B	8943
MB 885-8969/1-A	Method Blank	Total/NA	Solid	8021B	8969
LCS 885-8943/3-A	Lab Control Sample	Total/NA	Solid	8021B	8943
LCS 885-8969/4-A	Lab Control Sample	Total/NA	Solid	8021B	8969
885-8373-1 MS	BH24-37 0.0'	Total/NA	Solid	8021B	8943
885-8373-1 MSD	BH24-37 0.0'	Total/NA	Solid	8021B	8943
885-8373-21 MS	BH24-43 4.0'	Total/NA	Solid	8021B	8969
885-8373-21 MSD	BH24-43 4.0'	Total/NA	Solid	8021B	8969

Analysis Batch: 9162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-36	BH24-48 4.0'	Total/NA	Solid	8015M/D	8985
MB 885-8985/1-A	Method Blank	Total/NA	Solid	8015M/D	8985
LCS 885-8985/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8985
885-8373-36 MS	BH24-48 4.0'	Total/NA	Solid	8015M/D	8985
885-8373-36 MSD	BH24-48 4.0'	Total/NA	Solid	8015M/D	8985

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

GC VOA

Analysis Batch: 9163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-36	BH24-48 4.0'	Total/NA	Solid	8021B	8985
MB 885-8985/1-A	Method Blank	Total/NA	Solid	8021B	8985
LCS 885-8985/3-A	Lab Control Sample	Total/NA	Solid	8021B	8985

GC Semi VOA

Analysis Batch: 8962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-1	BH24-37 0.0'	Total/NA	Solid	8015M/D	8970
885-8373-2	BH24-37 20'	Total/NA	Solid	8015M/D	8970
885-8373-3	BH24-37 4.0'	Total/NA	Solid	8015M/D	8970
885-8373-4	BH24-38 0.0'	Total/NA	Solid	8015M/D	8970
885-8373-5	BH24-38 2.0'	Total/NA	Solid	8015M/D	8970
885-8373-6	BH24-38 4.0'	Total/NA	Solid	8015M/D	8970
885-8373-7	BH24-39 0.0'	Total/NA	Solid	8015M/D	8970
885-8373-8	BH24-39 2.0'	Total/NA	Solid	8015M/D	8995
885-8373-9	BH24-39 4.0'	Total/NA	Solid	8015M/D	8995
885-8373-10	BH24-40 0.0'	Total/NA	Solid	8015M/D	8995
885-8373-11	BH24-40 2.0'	Total/NA	Solid	8015M/D	8995
885-8373-12	BH24-40 4.0'	Total/NA	Solid	8015M/D	8995
885-8373-13	BH24-41 0.0'	Total/NA	Solid	8015M/D	8995
885-8373-14	BH24-41 2.0'	Total/NA	Solid	8015M/D	8995
885-8373-15	BH24-41 4.0'	Total/NA	Solid	8015M/D	8995
885-8373-16	BH24-42 0.0'	Total/NA	Solid	8015M/D	8995
885-8373-17	BH24-42 2.0'	Total/NA	Solid	8015M/D	8995
885-8373-18	BH24-42 4.0'	Total/NA	Solid	8015M/D	8995
885-8373-19	BH24-43 0.0'	Total/NA	Solid	8015M/D	8995
885-8373-20	BH24-43 2.0'	Total/NA	Solid	8015M/D	8995
885-8373-21	BH24-43 4.0'	Total/NA	Solid	8015M/D	8995
885-8373-22	BH24-44 0.0'	Total/NA	Solid	8015M/D	8995
885-8373-23	BH24-44 2.0'	Total/NA	Solid	8015M/D	8995
885-8373-24	BH24-44 4.0'	Total/NA	Solid	8015M/D	8995
885-8373-25	BH24-45 0.0'	Total/NA	Solid	8015M/D	8995
885-8373-26	BH24-45 2.0'	Total/NA	Solid	8015M/D	8995
885-8373-27	BH24-45 4.0'	Total/NA	Solid	8015M/D	8995
MB 885-8970/1-A	Method Blank	Total/NA	Solid	8015M/D	8970
MB 885-8995/1-A	Method Blank	Total/NA	Solid	8015M/D	8995
LCS 885-8970/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8970
LCS 885-8995/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8995
885-8373-7 MS	BH24-39 0.0'	Total/NA	Solid	8015M/D	8970
885-8373-7 MSD	BH24-39 0.0'	Total/NA	Solid	8015M/D	8970
885-8373-27 MS	BH24-45 4.0'	Total/NA	Solid	8015M/D	8995
885-8373-27 MSD	BH24-45 4.0'	Total/NA	Solid	8015M/D	8995

Prep Batch: 8970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-1	BH24-37 0.0'	Total/NA	Solid	SHAKE	
885-8373-2	BH24-37 20'	Total/NA	Solid	SHAKE	
885-8373-3	BH24-37 4.0'	Total/NA	Solid	SHAKE	
885-8373-4	BH24-38 0.0'	Total/NA	Solid	SHAKE	
885-8373-5	BH24-38 2.0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

GC Semi VOA (Continued)

Prep Batch: 8970 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-6	BH24-38 4.0'	Total/NA	Solid	SHAKE	
885-8373-7	BH24-39 0.0'	Total/NA	Solid	SHAKE	
MB 885-8970/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8970/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8373-7 MS	BH24-39 0.0'	Total/NA	Solid	SHAKE	
885-8373-7 MSD	BH24-39 0.0'	Total/NA	Solid	SHAKE	

Prep Batch: 8995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-8	BH24-39 2.0'	Total/NA	Solid	SHAKE	
885-8373-9	BH24-39 4.0'	Total/NA	Solid	SHAKE	
885-8373-10	BH24-40 0.0'	Total/NA	Solid	SHAKE	
885-8373-11	BH24-40 2.0'	Total/NA	Solid	SHAKE	
885-8373-12	BH24-40 4.0'	Total/NA	Solid	SHAKE	
885-8373-13	BH24-41 0.0'	Total/NA	Solid	SHAKE	
885-8373-14	BH24-41 2.0'	Total/NA	Solid	SHAKE	
885-8373-15	BH24-41 4.0'	Total/NA	Solid	SHAKE	
885-8373-16	BH24-42 0.0'	Total/NA	Solid	SHAKE	
885-8373-17	BH24-42 2.0'	Total/NA	Solid	SHAKE	
885-8373-18	BH24-42 4.0'	Total/NA	Solid	SHAKE	
885-8373-19	BH24-43 0.0'	Total/NA	Solid	SHAKE	
885-8373-20	BH24-43 2.0'	Total/NA	Solid	SHAKE	
885-8373-21	BH24-43 4.0'	Total/NA	Solid	SHAKE	
885-8373-22	BH24-44 0.0'	Total/NA	Solid	SHAKE	
885-8373-23	BH24-44 2.0'	Total/NA	Solid	SHAKE	
885-8373-24	BH24-44 4.0'	Total/NA	Solid	SHAKE	
885-8373-25	BH24-45 0.0'	Total/NA	Solid	SHAKE	
885-8373-26	BH24-45 2.0'	Total/NA	Solid	SHAKE	
885-8373-27	BH24-45 4.0'	Total/NA	Solid	SHAKE	
MB 885-8995/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8995/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8373-27 MS	BH24-45 4.0'	Total/NA	Solid	SHAKE	
885-8373-27 MSD	BH24-45 4.0'	Total/NA	Solid	SHAKE	

Prep Batch: 8999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-28	BH24-46 0.0'	Total/NA	Solid	SHAKE	
885-8373-29	BH24-46 2.0'	Total/NA	Solid	SHAKE	
885-8373-30	BH24-46 4.0'	Total/NA	Solid	SHAKE	
885-8373-31	BH24-47 0.0'	Total/NA	Solid	SHAKE	
885-8373-32	BH24-47 2.0'	Total/NA	Solid	SHAKE	
885-8373-33	BH24-47 4.0'	Total/NA	Solid	SHAKE	
885-8373-34	BH24-48 0.0'	Total/NA	Solid	SHAKE	
885-8373-35	BH24-48 2.0'	Total/NA	Solid	SHAKE	
885-8373-36	BH24-48 4.0'	Total/NA	Solid	SHAKE	
MB 885-8999/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-8999/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 9050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-28	BH24-46 0.0'	Total/NA	Solid	8015M/D	8999

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

GC Semi VOA (Continued)

Analysis Batch: 9050 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-29	BH24-46 2.0'	Total/NA	Solid	8015M/D	8999
885-8373-30	BH24-46 4.0'	Total/NA	Solid	8015M/D	8999
885-8373-31	BH24-47 0.0'	Total/NA	Solid	8015M/D	8999
885-8373-32	BH24-47 2.0'	Total/NA	Solid	8015M/D	8999
885-8373-33	BH24-47 4.0'	Total/NA	Solid	8015M/D	8999
885-8373-34	BH24-48 0.0'	Total/NA	Solid	8015M/D	8999
885-8373-35	BH24-48 2.0'	Total/NA	Solid	8015M/D	8999
885-8373-36	BH24-48 4.0'	Total/NA	Solid	8015M/D	8999
MB 885-8999/1-A	Method Blank	Total/NA	Solid	8015M/D	8999
LCS 885-8999/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	8999

HPLC/IC

Prep Batch: 9004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-1	BH24-37 0.0'	Total/NA	Solid	300_Prep	
885-8373-2	BH24-37 20'	Total/NA	Solid	300_Prep	
885-8373-3	BH24-37 4.0'	Total/NA	Solid	300_Prep	
885-8373-4	BH24-38 0.0'	Total/NA	Solid	300_Prep	
885-8373-5	BH24-38 2.0'	Total/NA	Solid	300_Prep	
885-8373-6	BH24-38 4.0'	Total/NA	Solid	300_Prep	
885-8373-7	BH24-39 0.0'	Total/NA	Solid	300_Prep	
885-8373-8	BH24-39 2.0'	Total/NA	Solid	300_Prep	
885-8373-9	BH24-39 4.0'	Total/NA	Solid	300_Prep	
885-8373-10	BH24-40 0.0'	Total/NA	Solid	300_Prep	
885-8373-11	BH24-40 2.0'	Total/NA	Solid	300_Prep	
885-8373-12	BH24-40 4.0'	Total/NA	Solid	300_Prep	
885-8373-13	BH24-41 0.0'	Total/NA	Solid	300_Prep	
885-8373-14	BH24-41 2.0'	Total/NA	Solid	300_Prep	
885-8373-15	BH24-41 4.0'	Total/NA	Solid	300_Prep	
885-8373-16	BH24-42 0.0'	Total/NA	Solid	300_Prep	
885-8373-17	BH24-42 2.0'	Total/NA	Solid	300_Prep	
885-8373-18	BH24-42 4.0'	Total/NA	Solid	300_Prep	
MB 885-9004/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9004/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-8373-1 MS	BH24-37 0.0'	Total/NA	Solid	300_Prep	
885-8373-1 MSD	BH24-37 0.0'	Total/NA	Solid	300_Prep	

Analysis Batch: 9021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-1	BH24-37 0.0'	Total/NA	Solid	300.0	9004
885-8373-2	BH24-37 20'	Total/NA	Solid	300.0	9004
885-8373-3	BH24-37 4.0'	Total/NA	Solid	300.0	9004
885-8373-4	BH24-38 0.0'	Total/NA	Solid	300.0	9004
885-8373-5	BH24-38 2.0'	Total/NA	Solid	300.0	9004
885-8373-6	BH24-38 4.0'	Total/NA	Solid	300.0	9004
885-8373-7	BH24-39 0.0'	Total/NA	Solid	300.0	9004
885-8373-8	BH24-39 2.0'	Total/NA	Solid	300.0	9004
885-8373-9	BH24-39 4.0'	Total/NA	Solid	300.0	9004
885-8373-10	BH24-40 0.0'	Total/NA	Solid	300.0	9004
885-8373-11	BH24-40 2.0'	Total/NA	Solid	300.0	9004

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

HPLC/IC (Continued)

Analysis Batch: 9021 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-12	BH24-40 4.0'	Total/NA	Solid	300.0	9004
885-8373-13	BH24-41 0.0'	Total/NA	Solid	300.0	9004
885-8373-14	BH24-41 2.0'	Total/NA	Solid	300.0	9004
885-8373-15	BH24-41 4.0'	Total/NA	Solid	300.0	9004
885-8373-16	BH24-42 0.0'	Total/NA	Solid	300.0	9004
885-8373-17	BH24-42 2.0'	Total/NA	Solid	300.0	9004
885-8373-18	BH24-42 4.0'	Total/NA	Solid	300.0	9004
MB 885-9004/1-A	Method Blank	Total/NA	Solid	300.0	9004
MB 885-9021/24	Method Blank	Total/NA	Solid	300.0	
LCS 885-9004/2-A	Lab Control Sample	Total/NA	Solid	300.0	9004
MRL 885-9021/23	Lab Control Sample	Total/NA	Solid	300.0	
885-8373-1 MS	BH24-37 0.0'	Total/NA	Solid	300.0	9004
885-8373-1 MSD	BH24-37 0.0'	Total/NA	Solid	300.0	9004

Prep Batch: 9028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-19	BH24-43 0.0'	Total/NA	Solid	300_Prep	
885-8373-20	BH24-43 2.0'	Total/NA	Solid	300_Prep	
885-8373-21	BH24-43 4.0'	Total/NA	Solid	300_Prep	
885-8373-22	BH24-44 0.0'	Total/NA	Solid	300_Prep	
885-8373-23	BH24-44 2.0'	Total/NA	Solid	300_Prep	
885-8373-24	BH24-44 4.0'	Total/NA	Solid	300_Prep	
885-8373-25	BH24-45 0.0'	Total/NA	Solid	300_Prep	
885-8373-26	BH24-45 2.0'	Total/NA	Solid	300_Prep	
885-8373-27	BH24-45 4.0'	Total/NA	Solid	300_Prep	
885-8373-28	BH24-46 0.0'	Total/NA	Solid	300_Prep	
885-8373-29	BH24-46 2.0'	Total/NA	Solid	300_Prep	
885-8373-30	BH24-46 4.0'	Total/NA	Solid	300_Prep	
885-8373-31	BH24-47 0.0'	Total/NA	Solid	300_Prep	
885-8373-32	BH24-47 2.0'	Total/NA	Solid	300_Prep	
885-8373-33	BH24-47 4.0'	Total/NA	Solid	300_Prep	
885-8373-34	BH24-48 0.0'	Total/NA	Solid	300_Prep	
885-8373-35	BH24-48 2.0'	Total/NA	Solid	300_Prep	
885-8373-36	BH24-48 4.0'	Total/NA	Solid	300_Prep	
MB 885-9028/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9028/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-19	BH24-43 0.0'	Total/NA	Solid	300.0	9028
885-8373-20	BH24-43 2.0'	Total/NA	Solid	300.0	9028
885-8373-21	BH24-43 4.0'	Total/NA	Solid	300.0	9028
885-8373-22	BH24-44 0.0'	Total/NA	Solid	300.0	9028
885-8373-23	BH24-44 2.0'	Total/NA	Solid	300.0	9028
885-8373-24	BH24-44 4.0'	Total/NA	Solid	300.0	9028
885-8373-25	BH24-45 0.0'	Total/NA	Solid	300.0	9028
885-8373-26	BH24-45 2.0'	Total/NA	Solid	300.0	9028
885-8373-27	BH24-45 4.0'	Total/NA	Solid	300.0	9028
885-8373-28	BH24-46 0.0'	Total/NA	Solid	300.0	9028
885-8373-29	BH24-46 2.0'	Total/NA	Solid	300.0	9028
885-8373-30	BH24-46 4.0'	Total/NA	Solid	300.0	9028

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

HPLC/IC (Continued)

Analysis Batch: 9034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8373-31	BH24-47 0.0'	Total/NA	Solid	300.0	9028
885-8373-32	BH24-47 2.0'	Total/NA	Solid	300.0	9028
885-8373-33	BH24-47 4.0'	Total/NA	Solid	300.0	9028
885-8373-34	BH24-48 0.0'	Total/NA	Solid	300.0	9028
885-8373-35	BH24-48 2.0'	Total/NA	Solid	300.0	9028
885-8373-36	BH24-48 4.0'	Total/NA	Solid	300.0	9028
MB 885-9028/1-A	Method Blank	Total/NA	Solid	300.0	9028
LCS 885-9028/2-A	Lab Control Sample	Total/NA	Solid	300.0	9028

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-37 0.0'
Lab Sample ID: 885-8373-1
Date Collected: 07/17/24 09:45
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 23:07
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 23:07
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 04:45
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 02:22

Client Sample ID: BH24-37 20'
Lab Sample ID: 885-8373-2
Date Collected: 07/17/24 09:50
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 00:17
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 00:17
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 04:56
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 02:59

Client Sample ID: BH24-37 4.0'
Lab Sample ID: 885-8373-3
Date Collected: 07/17/24 09:55
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 01:04
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 01:04
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 05:07
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 03:11

Client Sample ID: BH24-38 0.0'
Lab Sample ID: 885-8373-4
Date Collected: 07/17/24 10:00
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 01:28

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-38 0.0'
Lab Sample ID: 885-8373-4
Date Collected: 07/17/24 10:00
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 01:28
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 05:17
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 03:24

Client Sample ID: BH24-38 2.0'
Lab Sample ID: 885-8373-5
Date Collected: 07/17/24 10:05
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 01:51
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 01:51
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 05:28
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 03:36

Client Sample ID: BH24-38 4.0'
Lab Sample ID: 885-8373-6
Date Collected: 07/17/24 10:10
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 02:14
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 02:14
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 05:39
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 03:48

Client Sample ID: BH24-39 0.0'
Lab Sample ID: 885-8373-7
Date Collected: 07/17/24 10:15
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 02:38
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 02:38

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-39 0.0'
Lab Sample ID: 885-8373-7
Date Collected: 07/17/24 10:15
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8970	KR	EET ALB	07/23/24 11:11
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 05:49
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 04:01

Client Sample ID: BH24-39 2.0'
Lab Sample ID: 885-8373-8
Date Collected: 07/17/24 10:20
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 03:01
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 03:01
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 21:18
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 04:13

Client Sample ID: BH24-39 4.0'
Lab Sample ID: 885-8373-9
Date Collected: 07/17/24 10:25
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 03:25
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 03:25
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 21:29
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 04:50

Client Sample ID: BH24-40 0.0'
Lab Sample ID: 885-8373-10
Date Collected: 07/17/24 10:35
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 03:48
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 03:48
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 21:40

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-40 0.0'
Lab Sample ID: 885-8373-10
Date Collected: 07/17/24 10:35
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 05:02

Client Sample ID: BH24-40 2.0'
Lab Sample ID: 885-8373-11
Date Collected: 07/17/24 10:40
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 04:11
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 04:11
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 21:51
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 05:15

Client Sample ID: BH24-40 4.0'
Lab Sample ID: 885-8373-12
Date Collected: 07/17/24 10:45
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 04:35
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 04:35
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 22:02
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 05:27

Client Sample ID: BH24-41 0.0'
Lab Sample ID: 885-8373-13
Date Collected: 07/17/24 11:05
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 05:22
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 05:22
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 22:14
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 05:39

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-41 2.0'
Lab Sample ID: 885-8373-14
Date Collected: 07/17/24 11:10
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 05:45
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 05:45
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 22:25
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 05:52

Client Sample ID: BH24-41 4.0'
Lab Sample ID: 885-8373-15
Date Collected: 07/17/24 11:20
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 06:08
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 06:08
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 22:36
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 06:04

Client Sample ID: BH24-42 0.0'
Lab Sample ID: 885-8373-16
Date Collected: 07/17/24 11:30
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 06:32
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 06:32
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 22:47
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 06:17

Client Sample ID: BH24-42 2.0'
Lab Sample ID: 885-8373-17
Date Collected: 07/17/24 11:35
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 06:55

Lab Chronicle

Client: Vertex Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-42 2.0' Lab Sample ID: 885-8373-17

Date Collected: 07/17/24 11:35 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 06:55
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 23:09
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 06:29

Client Sample ID: BH24-42 4.0' Lab Sample ID: 885-8373-18

Date Collected: 07/17/24 11:40 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 07:18
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 07:18
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 23:20
Total/NA	Prep	300_Prep			9004	KB	EET ALB	07/23/24 16:11
Total/NA	Analysis	300.0		20	9021	JT	EET ALB	07/24/24 06:41

Client Sample ID: BH24-43 0.0' Lab Sample ID: 885-8373-19

Date Collected: 07/18/24 09:30 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/25/24 07:42
Total/NA	Prep	5030C			8943	JR	EET ALB	07/22/24 16:43
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/25/24 07:42
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 23:32
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 10:38

Client Sample ID: BH24-43 2.0' Lab Sample ID: 885-8373-20

Date Collected: 07/18/24 09:35 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 12:08
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 12:08

Lab Chronicle

Client: Vertex Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-43 2.0' Lab Sample ID: 885-8373-20

Date Collected: 07/18/24 09:35 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 23:43
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 11:17

Client Sample ID: BH24-43 4.0' Lab Sample ID: 885-8373-21

Date Collected: 07/18/24 09:40 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 13:18
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 13:18
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/23/24 23:54
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 11:55

Client Sample ID: BH24-44 0.0' Lab Sample ID: 885-8373-22

Date Collected: 07/18/24 09:55 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 14:29
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 14:29
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 00:05
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 12:08

Client Sample ID: BH24-44 2.0' Lab Sample ID: 885-8373-23

Date Collected: 07/18/24 10:00 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 14:53
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 14:53
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 00:16

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8373-1

Client Sample ID: BH24-44 2.0'

Lab Sample ID: 885-8373-23
Matrix: Solid
Date Collected: 07/18/24 10:00
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 12:47

Client Sample ID: BH24-44 4.0'

Lab Sample ID: 885-8373-24
Matrix: Solid
Date Collected: 07/18/24 10:05
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 15:16
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 15:16
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 00:27
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 13:00

Client Sample ID: BH24-45 0.0'

Lab Sample ID: 885-8373-25
Matrix: Solid
Date Collected: 07/18/24 10:15
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 15:40
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 15:40
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 00:39
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 13:13

Client Sample ID: BH24-45 2.0'

Lab Sample ID: 885-8373-26
Matrix: Solid
Date Collected: 07/18/24 10:20
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 16:04
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 16:04
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 00:50
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 13:25

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-45 4.0'
Lab Sample ID: 885-8373-27
Date Collected: 07/18/24 10:25
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 16:27
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 16:27
Total/NA	Prep	SHAKE			8995	KR	EET ALB	07/23/24 14:22
Total/NA	Analysis	8015M/D		1	8962	KR	EET ALB	07/24/24 01:01
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 13:38

Client Sample ID: BH24-46 0.0'
Lab Sample ID: 885-8373-28
Date Collected: 07/18/24 10:40
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 16:51
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 16:51
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 15:35
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 13:51

Client Sample ID: BH24-46 2.0'
Lab Sample ID: 885-8373-29
Date Collected: 07/18/24 10:45
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 17:38
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 17:38
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 15:46
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 14:04

Client Sample ID: BH24-46 4.0'
Lab Sample ID: 885-8373-30
Date Collected: 07/18/24 10:50
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 18:02

Lab Chronicle

Client: Vertex Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-46 4.0' Lab Sample ID: 885-8373-30

Date Collected: 07/18/24 10:50 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 18:02
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 15:57
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 14:17

Client Sample ID: BH24-47 0.0' Lab Sample ID: 885-8373-31

Date Collected: 07/18/24 11:05 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 18:25
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 18:25
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 16:07
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 14:30

Client Sample ID: BH24-47 2.0' Lab Sample ID: 885-8373-32

Date Collected: 07/18/24 11:10 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 18:49
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 18:49
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 16:18
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 14:43

Client Sample ID: BH24-47 4.0' Lab Sample ID: 885-8373-33

Date Collected: 07/18/24 11:15 **Matrix: Solid**
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 19:12
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 19:12

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-47 4.0'
Lab Sample ID: 885-8373-33
Date Collected: 07/18/24 11:15
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 16:49
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 15:21

Client Sample ID: BH24-48 0.0'
Lab Sample ID: 885-8373-34
Date Collected: 07/18/24 11:25
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 19:36
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 19:36
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 16:59
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 15:34

Client Sample ID: BH24-48 2.0'
Lab Sample ID: 885-8373-35
Date Collected: 07/18/24 11:30
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8015M/D		1	9058	JP	EET ALB	07/24/24 19:59
Total/NA	Prep	5030C			8969	JP	EET ALB	07/23/24 10:56
Total/NA	Analysis	8021B		1	9059	JP	EET ALB	07/24/24 19:59
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 17:10
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 15:47

Client Sample ID: BH24-48 4.0'
Lab Sample ID: 885-8373-36
Date Collected: 07/18/24 11:35
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			8985	JP	EET ALB	07/23/24 13:05
Total/NA	Analysis	8015M/D		1	9162	RA	EET ALB	07/24/24 14:50
Total/NA	Prep	5030C			8985	JP	EET ALB	07/23/24 13:05
Total/NA	Analysis	8021B		1	9163	RA	EET ALB	07/24/24 14:50
Total/NA	Prep	SHAKE			8999	KR	EET ALB	07/23/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 17:21

Lab Chronicle

Client: Vertex
Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-48 4.0'
Lab Sample ID: 885-8373-36
Date Collected: 07/18/24 11:35
Matrix: Solid
Date Received: 07/20/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9028	JT	EET ALB	07/24/24 08:19
Total/NA	Analysis	300.0		20	9034	RC	EET ALB	07/24/24 16:00

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8373-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Drive, Carlsbad NM, 88220

Phone #: On File

email or Fax#:

QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 0.3+0.1=0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-8373 COC

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.17.24	0945	Soil	BH24-37	0.0'	4 oz	ICE	1										
	0950		BH24-37	2.0'			2										
	0955		BH24-37	4.0'			3										
	1000		BH24-38	0.0'			4										
	1005		BH24-38	2.0'			5										
	1010		BH24-38	4.0'			6										
	1015		BH24-39	0.0'			7										
	1020		BH24-39	2.0'			8										
	1025		BH24-39	4.0'			9										
	1035		BH24-40	0.0'			10										
	1040		BH24-40	2.0'			11										
	1045		BH24-40	4.0'			12										

Date	Time	Relinquished by	Received by	Via	Date	Time
7/19/24	0700				7/19/24	0700
7/19/24	1900			courier	7/20/24	7:30

Remarks: Bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: Vertex
(Mack Energy
Mailing Address: Vertex Resources Services Inc.
3101 Boyd Drive, Carlsbad NM, 88220
Phone #: On File
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☒ Rush 5-day
Project Name: Dawson Creek State #2
Project #: 24E-03166
Project Manager: Sally Carttar
Sampler: AL
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 0.3+0.1= 0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.17.24	1105	Soil	BH24-41 0.0'	4oz	ICE	13										
	1110		BH24-41 2.0'			14										
	1120		BH24-41 4.0' ~~5.0'~~ AL 7-18-24			15										
	1130		BH24-42 0.0'			16										
	1135		BH24-42 2.0'			17										
↓	1140		BH24-42 4.0'			18										
7.18.24	0930		BH24-43 0.0'			19										
	0935		BH24-43 2.0'			20										
	0940		BH24-43 4.0'			21										
	0955		BH24-44 0.0'			22										
	1000		BH24-44 2.0'			23										
↓	1005	↓	BH24-44 4.0'	↓	↓	24	↓	↓					↓			

Date	Time	Relinquished by	Received by	Via	Date	Time
7/19/24	0700				7/19/24	0700
7/19/24	1910			courier	7/20/24	7:30

Remarks: Bill to Mack Energy
cc: Scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc 3101 Boyd Drive, Carlsbad NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.3 +0.1=0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.18.24	1015	soil	BH24-45	0.0'	4 oz	ICE	25										
	1020		BH24-45	2.0'			26										
	1025		BH24-45	4.0'			27										
	1040		BH24-46	0.0'			28										
	1045		BH24-46	2.0'			29										
	1050		BH24-46	4.0'			30										
	1105		BH24-47	0.0'			31										
	1110		BH24-47	2.0'			32										
	1115		BH24-47	4.0'			33										
	1125		BH24-48	0.0'			34										
	1130		BH24-48	2.0'			35										
↓	1135	↓	BH24-48	4.0'	↓	↓	36	↓	↓					↓			

Date	Time	Relinquished by	Received by	Via	Date	Time
					7/19/24	0700
7/19/24	1910			courier	7/20/24	7:30

Remarks: Bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Drive, Carlsbad NM, 88220

Phone #: on file

email or Fax#:

QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No yes

# of Coolers: 1

Cooler Temp(including CF): 0.3+0.1=0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710[illegible] 885-8373 COC
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.17.24	0945	Soil	BH24-37 0.0'	4 oz	ICE	1										
	0950		BH24-37 2.0'			2										
	0955		BH24-37 4.0'			3										
	1000		BH24-38 0.0'			4										
	1005		BH24-38 2.0'			5										
	1010		BH24-38 4.0'			6										
	1015		BH24-39 0.0'			7										
	1020		BH24-39 2.0'			8										
	1025		BH24-39 4.0'			9										
	1035		BH24-40 0.0'			10										
	1040		BH24-40 2.0'			11										
	1045		BH24-40 4.0'			12										

Date	Time	Relinquished by	Received by	Via	Date	Time
7/19/24	0700				7/19/24	0700
7/19/24	1910			courier	7/20/24	7:30

Remarks: Bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex
(Mack Energy
Mailing Address: Vertex Resources Services Inc.
3101 Boyd Drive, Carlsbad NM, 88220
Phone #: On File
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☒ Rush 5-day
Project Name: Dawson Creek State #2
Project #: 24E-03166
Project Manager: Sally Carttar
Sampler: AL
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 0.3+0.1= 0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	(TPH)8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.17.24	1105	Soil	BH24-41 0.0'	4oz	ICE	13										
	1110		BH24-41 2.0'			14										
	1120		BH24-41 4.0' ~~5.0'~~ AL 7-18-24			15										
	1130		BH24-42 0.0'			16										
	1135		BH24-42 2.0'			17										
	1140		BH24-42 4.0'			18										
7.18.24	0930		BH24-43 0.0'			19										
	0935		BH24-43 2.0'			20										
	0940		BH24-43 4.0'			21										
	0955		BH24-44 0.0'			22										
	1000		BH24-44 2.0'			23										
	1005		BH24-44 4.0'			24										

Date	Time	Relinquished by	Received by	Via	Date	Time
7/19/24	0700				7/19/24	0700
7/19/24	1910			courier	7/20/24	7:30

Remarks: Bill to Mack Energy
cc: Scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories * This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report

Page 510 of 1201

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc 3101 Boyd Drive, Carlsbad NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.3 +0.1 = 0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.18.24	1015	soil	BH24-45 0.0'	4oz	ICE	25										
	1020		BH24-45 2.0'			26										
	1025		BH24-45 4.0'			27										
	1040		BH24-46 0.0'			28										
	1045		BH24-46 2.0'			29										
	1050		BH24-46 4.0'			30										
	1105		BH24-47 0.0'			31										
	1110		BH24-47 2.0'			32										
	1115		BH24-47 4.0'			33										
	1125		BH24-48 0.0'			34										
	1130		BH24-48 2.0'			35										
↓	1135	↓	BH24-48 4.0'	↓	↓	36	↓	↓					↓			

Date	Time	Relinquished by	Received by	Via	Date	Time
					7/19/24	0700
7/19/24	1910			courier	7/20/24	7:30

Remarks: Bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8373-1

Login Number: 8373 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 8/1/2024 12:59:29 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8504-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
8/1/2024 12:59:29 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8504-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 39
QC Association Summary 48
Lab Chronicle 56
Certification Summary 67
Chain of Custody 68
Receipt Checklists 71

Definitions/Glossary

Client: Vertex Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8504-1
Project: Dawson Creek State #2

Job ID: 885-8504-1 **Eurofins Albuquerque**

Job Narrative
885-8504-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/24/2024 6:54 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following sample was outside the upper control limit: BH24-54 0.0' (885-8504-16). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_DRO: Surrogate recovery for the following sample was outside the upper control limit: (CCV 885-9115/42). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: BH24-58 4.0' (885-8504-30), BH24-59 0.0' (885-8504-31), BH24-59 2.0' (885-8504-32), BH24-59 4.0' (885-8504-33) and (MB 885-9157/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-49 0.0'

Date Collected: 07/19/24 10:30
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 10:36	07/25/24 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 10:36*	*07/25/24 21:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/25/24 21:29	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 10:36	07/25/24 21:29	1
Toluene	ND		0.048		mg/Kg		07/24/24 10:36	07/25/24 21:29	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 10:36	07/25/24 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/24/24 10:36*	*07/25/24 21:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		07/24/24 12:14	07/25/24 05:10	1
Motor Oil Range Organics [C28-C40]	ND		43		mg/Kg		07/24/24 12:14	07/25/24 05:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*07/24/24 12:14*	*07/25/24 05:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 14:31	07/24/24 23:32	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-49 2.0'

Date Collected: 07/19/24 10:35
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 10:36	07/25/24 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 10:36*	*07/25/24 22:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/25/24 22:39	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 10:36	07/25/24 22:39	1
Toluene	ND		0.049		mg/Kg		07/24/24 10:36	07/25/24 22:39	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 10:36	07/25/24 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 10:36*	*07/25/24 22:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/24/24 12:14	07/25/24 05:21	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/24/24 12:14	07/25/24 05:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*07/24/24 12:14*	*07/25/24 05:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 14:31	07/24/24 23:44	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-49 4.0'

Date Collected: 07/19/24 10:40
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 10:36	07/25/24 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 10:36*	*07/25/24 23:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/25/24 23:49	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 10:36	07/25/24 23:49	1
Toluene	ND		0.048		mg/Kg		07/24/24 10:36	07/25/24 23:49	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 10:36	07/25/24 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/24/24 10:36*	*07/25/24 23:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.4		mg/Kg		07/24/24 12:14	07/25/24 05:32	1
Motor Oil Range Organics [C28-C40]	ND		42		mg/Kg		07/24/24 12:14	07/25/24 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/24/24 12:14*	*07/25/24 05:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 14:31	07/24/24 23:56	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-50 0.0'

Date Collected: 07/19/24 10:50
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 10:36	07/26/24 00:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 10:36*	*07/26/24 00:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/26/24 00:13	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 00:13	1
Toluene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 00:13	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 10:36	07/26/24 00:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 10:36*	*07/26/24 00:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		07/24/24 12:14	07/25/24 05:43	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/24/24 12:14	07/25/24 05:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/24/24 12:14*	*07/25/24 05:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 14:31	07/25/24 00:09	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-50 2.0'
Lab Sample ID: 885-8504-5
Date Collected: 07/19/24 10:55
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 10:36	07/26/24 00:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 10:36*	*07/26/24 00:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/26/24 00:36	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 00:36	1
Toluene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 00:36	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 10:36	07/26/24 00:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 10:36*	*07/26/24 00:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/24/24 12:14	07/25/24 05:54	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/24/24 12:14	07/25/24 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/24/24 12:14*	*07/25/24 05:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/24/24 14:31	07/25/24 00:21	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-50 4.0'
Lab Sample ID: 885-8504-6
Date Collected: 07/19/24 11:00
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 10:36	07/26/24 00:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/24/24 10:36*	*07/26/24 00:59*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/26/24 00:59	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 00:59	1
Toluene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 00:59	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 10:36	07/26/24 00:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 10:36*	*07/26/24 00:59*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/24/24 15:16	07/24/24 21:20	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/24/24 15:16	07/24/24 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/24/24 15:16*	*07/24/24 21:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 10:01	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-51 0.0'

Date Collected: 07/19/24 11:05
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 10:36	07/26/24 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 10:36*	*07/26/24 01:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 10:36	07/26/24 01:23	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 10:36	07/26/24 01:23	1
Toluene	ND		0.050		mg/Kg		07/24/24 10:36	07/26/24 01:23	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 10:36	07/26/24 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 10:36*	*07/26/24 01:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/24/24 15:16	07/24/24 21:32	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/24/24 15:16	07/24/24 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/24/24 15:16*	*07/24/24 21:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		60		mg/Kg		07/25/24 08:18	07/25/24 10:39	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-51 2.0'
Lab Sample ID: 885-8504-8
Date Collected: 07/19/24 11:10
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/24/24 10:36	07/26/24 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 10:36*	*07/26/24 01:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 10:36	07/26/24 01:46	1
Ethylbenzene	ND		0.046		mg/Kg		07/24/24 10:36	07/26/24 01:46	1
Toluene	ND		0.046		mg/Kg		07/24/24 10:36	07/26/24 01:46	1
Xylenes, Total	ND		0.093		mg/Kg		07/24/24 10:36	07/26/24 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 10:36*	*07/26/24 01:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/24/24 15:16	07/24/24 21:43	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/24/24 15:16	07/24/24 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/24/24 15:16*	*07/24/24 21:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 11:18	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-51 4.0'
Lab Sample ID: 885-8504-9
Date Collected: 07/19/24 11:15
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 10:36	07/26/24 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 10:36*	*07/26/24 02:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 10:36	07/26/24 02:10	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 10:36	07/26/24 02:10	1
Toluene	ND		0.050		mg/Kg		07/24/24 10:36	07/26/24 02:10	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 10:36	07/26/24 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/24/24 10:36*	*07/26/24 02:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.4		mg/Kg		07/24/24 15:16	07/24/24 21:54	1
Motor Oil Range Organics [C28-C40]	ND		42		mg/Kg		07/24/24 15:16	07/24/24 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/24/24 15:16*	*07/24/24 21:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 11:31	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-52 0.0'
Lab Sample ID: 885-8504-10
Date Collected: 07/19/24 11:30
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 10:36	07/26/24 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 10:36*	*07/26/24 02:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 10:36	07/26/24 02:33	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 02:33	1
Toluene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 02:33	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 10:36	07/26/24 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 10:36*	*07/26/24 02:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/24/24 15:16	07/24/24 22:05	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/24/24 15:16	07/24/24 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/24/24 15:16*	*07/24/24 22:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 12:09	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-52 2.0'
Lab Sample ID: 885-8504-11
Date Collected: 07/19/24 11:35
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 10:36	07/26/24 03:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 10:36*	*07/26/24 03:20*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/26/24 03:20	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 10:36	07/26/24 03:20	1
Toluene	ND		0.048		mg/Kg		07/24/24 10:36	07/26/24 03:20	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 10:36	07/26/24 03:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 10:36*	*07/26/24 03:20*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/24/24 15:16	07/24/24 22:16	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/24/24 15:16	07/24/24 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/24/24 15:16*	*07/24/24 22:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 12:22	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-52 4.0'
Lab Sample ID: 885-8504-12
Date Collected: 07/19/24 11:40
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 10:36	07/26/24 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 10:36*	*07/26/24 03:43*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/26/24 03:43	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 10:36	07/26/24 03:43	1
Toluene	ND		0.048		mg/Kg		07/24/24 10:36	07/26/24 03:43	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 10:36	07/26/24 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 10:36*	*07/26/24 03:43*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/24/24 15:16	07/24/24 22:28	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/24/24 15:16	07/24/24 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/24/24 15:16*	*07/24/24 22:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 12:35	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-53 0.0'
Lab Sample ID: 885-8504-13
Date Collected: 07/19/24 11:50
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 10:36	07/26/24 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 10:36*	*07/26/24 04:07*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 10:36	07/26/24 04:07	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 04:07	1
Toluene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 04:07	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 10:36	07/26/24 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 10:36*	*07/26/24 04:07*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/24/24 15:16	07/24/24 22:39	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/24/24 15:16	07/24/24 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/24/24 15:16*	*07/24/24 22:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 12:48	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-53 2.0'
Lab Sample ID: 885-8504-14
Date Collected: 07/19/24 11:55
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 10:36	07/26/24 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 10:36*	*07/26/24 04:30*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/26/24 04:30	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 04:30	1
Toluene	ND		0.049		mg/Kg		07/24/24 10:36	07/26/24 04:30	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 10:36	07/26/24 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 10:36*	*07/26/24 04:30*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/24/24 15:16	07/24/24 22:50	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/24/24 15:16	07/24/24 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/24/24 15:16*	*07/24/24 22:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 13:01	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-53 4.0'
Lab Sample ID: 885-8504-15
Date Collected: 07/19/24 12:00
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 10:36	07/26/24 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 10:36*	*07/26/24 04:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 10:36	07/26/24 04:54	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 10:36	07/26/24 04:54	1
Toluene	ND		0.047		mg/Kg		07/24/24 10:36	07/26/24 04:54	1
Xylenes, Total	ND		0.095		mg/Kg		07/24/24 10:36	07/26/24 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 10:36*	*07/26/24 04:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/24/24 15:16	07/24/24 23:12	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/24/24 15:16	07/24/24 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/24/24 15:16*	*07/24/24 23:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 13:14	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-54 0.0'
Lab Sample ID: 885-8504-16
Date Collected: 07/20/24 09:35
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 12:27	07/25/24 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*35 - 166*	*07/24/24 12:27*	*07/25/24 23:53*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/25/24 23:53	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 12:27	07/25/24 23:53	1
Toluene	ND		0.048		mg/Kg		07/24/24 12:27	07/25/24 23:53	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 12:27	07/25/24 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/25/24 23:53*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/24/24 15:16	07/24/24 23:23	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/24/24 15:16	07/24/24 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*138*	*S1+*	*62 - 134*	*07/24/24 15:16*	*07/24/24 23:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 13:26	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-54 2.0'
Lab Sample ID: 885-8504-17
Date Collected: 07/20/24 09:40
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 12:27	07/26/24 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/24/24 12:27*	*07/26/24 00:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 12:27	07/26/24 00:58	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 12:27	07/26/24 00:58	1
Toluene	ND		0.047		mg/Kg		07/24/24 12:27	07/26/24 00:58	1
Xylenes, Total	ND		0.094		mg/Kg		07/24/24 12:27	07/26/24 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/26/24 00:58*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/24/24 15:16	07/24/24 23:35	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/24/24 15:16	07/24/24 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/24/24 15:16*	*07/24/24 23:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 13:39	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-54 4.0'
Lab Sample ID: 885-8504-18
Date Collected: 07/20/24 09:45
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 02:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/24/24 12:27*	*07/26/24 02:04*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 02:04	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 02:04	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 02:04	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 12:27	07/26/24 02:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 12:27*	*07/26/24 02:04*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/24/24 15:16	07/24/24 23:46	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/24/24 15:16	07/24/24 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/24/24 15:16*	*07/24/24 23:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 13:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-55 0.0'

Date Collected: 07/20/24 10:00
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-19

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/24/24 12:27*	*07/26/24 02:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 02:25	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 02:25	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 02:25	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 12:27	07/26/24 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 12:27*	*07/26/24 02:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/24/24 15:16	07/24/24 23:57	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/24/24 15:16	07/24/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/24/24 15:16*	*07/24/24 23:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 14:05	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-55 2.0'
Lab Sample ID: 885-8504-20
Date Collected: 07/20/24 10:05
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 12:27	07/26/24 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 12:27*	*07/26/24 02:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 02:47	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 12:27	07/26/24 02:47	1
Toluene	ND		0.047		mg/Kg		07/24/24 12:27	07/26/24 02:47	1
Xylenes, Total	ND		0.095		mg/Kg		07/24/24 12:27	07/26/24 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/26/24 02:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/24/24 15:16	07/25/24 00:08	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/24/24 15:16	07/25/24 00:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/24/24 15:16*	*07/25/24 00:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 14:44	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-55 4.0'
Lab Sample ID: 885-8504-21
Date Collected: 07/20/24 10:10
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 12:27	07/26/24 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 12:27*	*07/26/24 03:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 03:09	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 03:09	1
Toluene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 03:09	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 12:27	07/26/24 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 12:27*	*07/26/24 03:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/24/24 15:16	07/25/24 00:19	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/24/24 15:16	07/25/24 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/24/24 15:16*	*07/25/24 00:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 14:56	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-56 0.0'

Date Collected: 07/20/24 10:25
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-22

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 12:27	07/26/24 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 12:27*	*07/26/24 03:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 03:31	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 03:31	1
Toluene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 03:31	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 12:27	07/26/24 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 12:27*	*07/26/24 03:31*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/24/24 15:16	07/25/24 00:30	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/24/24 15:16	07/25/24 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*07/24/24 15:16*	*07/25/24 00:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 15:09	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-56 2.0'

Date Collected: 07/20/24 10:30
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-23

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*07/24/24 12:27*	*07/26/24 03:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 03:52	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 03:52	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 03:52	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 12:27	07/26/24 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/26/24 03:52*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/24/24 15:16	07/25/24 00:42	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/24/24 15:16	07/25/24 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*07/24/24 15:16*	*07/25/24 00:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 15:22	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-56 4.0'
Lab Sample ID: 885-8504-24
Date Collected: 07/20/24 10:35
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 12:27	07/26/24 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*35 - 166*	*07/24/24 12:27*	*07/26/24 04:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 04:14	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 04:14	1
Toluene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 04:14	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 12:27	07/26/24 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 12:27*	*07/26/24 04:14*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/24/24 15:16	07/25/24 00:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/24/24 15:16	07/25/24 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/24/24 15:16*	*07/25/24 00:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 15:35	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-57 0.0'
Lab Sample ID: 885-8504-25
Date Collected: 07/20/24 10:40
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 12:27	07/26/24 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/24/24 12:27*	*07/26/24 04:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 04:36	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 04:36	1
Toluene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 04:36	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 12:27	07/26/24 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 12:27*	*07/26/24 04:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/24/24 15:16	07/25/24 01:04	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/24/24 15:16	07/25/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*07/24/24 15:16*	*07/25/24 01:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 08:18	07/25/24 15:48	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-57 2.0'
Lab Sample ID: 885-8504-26
Date Collected: 07/20/24 10:45
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 12:27	07/26/24 05:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/24/24 12:27*	*07/26/24 05:20*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 05:20	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 05:20	1
Toluene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 05:20	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 12:27	07/26/24 05:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/26/24 05:20*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/25/24 10:03	07/25/24 17:35	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/25/24 10:03	07/25/24 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/25/24 10:03*	*07/25/24 17:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 15:00	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-57 4.0'

Date Collected: 07/20/24 10:50
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-27

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 12:27	07/26/24 05:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 12:27*	*07/26/24 05:41*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 05:41	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 05:41	1
Toluene	ND		0.050		mg/Kg		07/24/24 12:27	07/26/24 05:41	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 12:27	07/26/24 05:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/26/24 05:41*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 10:03	07/25/24 17:46	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 10:03	07/25/24 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*07/25/24 10:03*	*07/25/24 17:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 15:12	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-58 0.0'
Lab Sample ID: 885-8504-28
Date Collected: 07/20/24 11:00
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 06:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 12:27*	*07/26/24 06:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 06:03	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 06:03	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 06:03	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 12:27	07/26/24 06:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 12:27*	*07/26/24 06:03*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/25/24 10:03	07/25/24 17:58	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/25/24 10:03	07/25/24 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/25/24 10:03*	*07/25/24 17:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 15:25	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-58 2.0'

Date Collected: 07/20/24 11:05
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-29

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 12:27	07/26/24 06:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/24/24 12:27*	*07/26/24 06:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 06:25	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 06:25	1
Toluene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 06:25	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 12:27	07/26/24 06:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/26/24 06:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/25/24 10:03	07/25/24 18:09	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/25/24 10:03	07/25/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/25/24 10:03*	*07/25/24 18:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72**		60		mg/Kg		07/25/24 10:50	07/25/24 15:37	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-58 4.0'

Date Collected: 07/20/24 11:10
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-30

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 06:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 12:27*	*07/26/24 06:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 06:47	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 06:47	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 06:47	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 12:27	07/26/24 06:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 12:27*	*07/26/24 06:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		07/25/24 11:20	07/25/24 16:32	1
Motor Oil Range Organics [C28-C40]	ND		43		mg/Kg		07/25/24 11:20	07/25/24 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*154*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 16:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 15:49	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-59 0.0'
Lab Sample ID: 885-8504-31
Date Collected: 07/20/24 11:15
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 07:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*07/24/24 12:27*	*07/26/24 07:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 07:08	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 07:08	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 07:08	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 12:27	07/26/24 07:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 12:27*	*07/26/24 07:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/25/24 11:20	07/25/24 16:56	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:20	07/25/24 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*150*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 16:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 16:02	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-59 2.0'

Date Collected: 07/20/24 11:20
Date Received: 07/24/24 06:54

Lab Sample ID: 885-8504-32

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 12:27	07/26/24 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 12:27*	*07/26/24 07:30*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 07:30	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 07:30	1
Toluene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 07:30	1
Xylenes, Total	ND		0.095		mg/Kg		07/24/24 12:27	07/26/24 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/24/24 12:27*	*07/26/24 07:30*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/25/24 11:20	07/25/24 17:20	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:20	07/25/24 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*153*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 17:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 16:39	20

Client Sample Results

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-59 4.0'
Lab Sample ID: 885-8504-33
Date Collected: 07/20/24 11:25
Matrix: Solid
Date Received: 07/24/24 06:54

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 07:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 12:27*	*07/26/24 07:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 07:52	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 07:52	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 07:52	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 12:27	07/26/24 07:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 12:27*	*07/26/24 07:52*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/25/24 11:20	07/25/24 17:45	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:20	07/25/24 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*147*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 17:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 16:51	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-9044/1-A
Matrix: Solid
Analysis Batch: 9196

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9044

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 10:36	07/25/24 19:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 10:36*	*07/25/24 19:08*	*1*

Lab Sample ID: LCS 885-9044/2-A
Matrix: Solid
Analysis Batch: 9196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9044

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.1		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*204*	*S1+*	*35 - 166*

Lab Sample ID: 885-8504-1 MS
Matrix: Solid
Analysis Batch: 9196

Client Sample ID: BH24-49 0.0'
Prep Type: Total/NA
Prep Batch: 9044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.0	19.9		mg/Kg		83	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*196*	*S1+*	*35 - 166*

Lab Sample ID: 885-8504-1 MSD
Matrix: Solid
Analysis Batch: 9196

Client Sample ID: BH24-49 0.0'
Prep Type: Total/NA
Prep Batch: 9044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		23.8	19.8		mg/Kg		83	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-9063/1-A
Matrix: Solid
Analysis Batch: 9271

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 12:27	07/25/24 23:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*35 - 166*	*07/24/24 12:27*	*07/25/24 23:31*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 885-9063/2-A
Matrix: Solid
Analysis Batch: 9271

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9063

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	20.1		mg/Kg		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*195*	*S1+*	*35 - 166*

Lab Sample ID: 885-8504-16 MS
Matrix: Solid
Analysis Batch: 9271

Client Sample ID: BH24-54 0.0'
Prep Type: Total/NA
Prep Batch: 9063

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.0	21.6		mg/Kg		90	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*213*	*S1+*	*35 - 166*

Lab Sample ID: 885-8504-16 MSD
Matrix: Solid
Analysis Batch: 9271

Client Sample ID: BH24-54 0.0'
Prep Type: Total/NA
Prep Batch: 9063

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.1	21.8		mg/Kg		90	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*210*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-9044/1-A
Matrix: Solid
Analysis Batch: 9197

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9044

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 10:36	07/25/24 19:08	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 10:36	07/25/24 19:08	1
Toluene	ND		0.050		mg/Kg		07/24/24 10:36	07/25/24 19:08	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 10:36	07/25/24 19:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 10:36*	*07/25/24 19:08*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-9044/3-A
Matrix: Solid
Analysis Batch: 9197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9044

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.940		mg/Kg		94	70 - 130		
Ethylbenzene			1.00	0.886		mg/Kg		89	70 - 130		
m,p-Xylene			2.00	1.81		mg/Kg		91	70 - 130		
o-Xylene			1.00	0.877		mg/Kg		88	70 - 130		
Toluene			1.00	0.885		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*

Lab Sample ID: 885-8504-2 MS
Matrix: Solid
Analysis Batch: 9197

Client Sample ID: BH24-49 2.0'
Prep Type: Total/NA
Prep Batch: 9044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.976	0.915		mg/Kg		94	70 - 130		
Ethylbenzene	ND		0.976	0.862		mg/Kg		88	70 - 130		
m,p-Xylene	ND		1.95	1.70		mg/Kg		86	70 - 130		
o-Xylene	ND		0.976	0.847		mg/Kg		87	70 - 130		
Toluene	ND		0.976	0.859		mg/Kg		86	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*

Lab Sample ID: 885-8504-2 MSD
Matrix: Solid
Analysis Batch: 9197

Client Sample ID: BH24-49 2.0'
Prep Type: Total/NA
Prep Batch: 9044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.970	0.979		mg/Kg		101	70 - 130	7	20
Ethylbenzene	ND		0.970	0.919		mg/Kg		95	70 - 130	6	20
m,p-Xylene	ND		1.94	1.84		mg/Kg		93	70 - 130	8	20
o-Xylene	ND		0.970	0.899		mg/Kg		93	70 - 130	6	20
Toluene	ND		0.970	0.925		mg/Kg		94	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*

Lab Sample ID: MB 885-9063/1-A
Matrix: Solid
Analysis Batch: 9272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/25/24 23:31	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 12:27	07/25/24 23:31	1
Toluene	ND		0.050		mg/Kg		07/24/24 12:27	07/25/24 23:31	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 12:27	07/25/24 23:31	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-9063/1-A
Matrix: Solid
Analysis Batch: 9272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9063

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		48 - 145	07/24/24 12:27	07/25/24 23:31	1

Lab Sample ID: LCS 885-9063/3-A
Matrix: Solid
Analysis Batch: 9272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.911		mg/Kg		91	70 - 130
Ethylbenzene	1.00	0.900		mg/Kg		90	70 - 130
m,p-Xylene	2.00	1.79		mg/Kg		89	70 - 130
o-Xylene	1.00	0.897		mg/Kg		90	70 - 130
Toluene	1.00	0.895		mg/Kg		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		48 - 145

Lab Sample ID: 885-8504-17 MS
Matrix: Solid
Analysis Batch: 9272

Client Sample ID: BH24-54 2.0'
Prep Type: Total/NA
Prep Batch: 9063

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.941	0.931		mg/Kg		99	70 - 130
Ethylbenzene	ND		0.941	0.940		mg/Kg		100	70 - 130
m,p-Xylene	ND		1.88	1.87		mg/Kg		99	70 - 130
o-Xylene	ND		0.941	0.937		mg/Kg		100	70 - 130
Toluene	ND		0.941	0.938		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		48 - 145

Lab Sample ID: 885-8504-17 MSD
Matrix: Solid
Analysis Batch: 9272

Client Sample ID: BH24-54 2.0'
Prep Type: Total/NA
Prep Batch: 9063

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.939	0.955		mg/Kg		102	70 - 130	3	20
Ethylbenzene	ND		0.939	0.956		mg/Kg		102	70 - 130	2	20
m,p-Xylene	ND		1.88	1.91		mg/Kg		101	70 - 130	2	20
o-Xylene	ND		0.939	0.959		mg/Kg		102	70 - 130	2	20
Toluene	ND		0.939	0.948		mg/Kg		101	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		48 - 145

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-9060/1-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9060

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/24/24 12:14	07/25/24 01:48	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/24/24 12:14	07/25/24 01:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/24/24 12:14*	*07/25/24 01:48*	*1*

Lab Sample ID: LCS 885-9060/2-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9060

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	47.0		mg/Kg		94	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*

Lab Sample ID: 885-8504-5 MS
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: BH24-50 2.0'
Prep Type: Total/NA
Prep Batch: 9060

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		49.2	46.9		mg/Kg		95	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Lab Sample ID: 885-8504-5 MSD
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: BH24-50 2.0'
Prep Type: Total/NA
Prep Batch: 9060

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.2	46.2		mg/Kg		94	44 - 136	2	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*

Lab Sample ID: MB 885-9082/1-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9082

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/24/24 15:16	07/24/24 20:58	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/24/24 15:16	07/24/24 20:58	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-9082/1-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9082

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134	07/24/24 15:16	07/24/24 20:58	1

Lab Sample ID: LCS 885-9082/2-A
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9082

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	47.9		mg/Kg		96	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Lab Sample ID: 885-8504-25 MS
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: BH24-57 0.0'
Prep Type: Total/NA
Prep Batch: 9082

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		46.4	43.6		mg/Kg		94	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Lab Sample ID: 885-8504-25 MSD
Matrix: Solid
Analysis Batch: 9050

Client Sample ID: BH24-57 0.0'
Prep Type: Total/NA
Prep Batch: 9082

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.7	44.6		mg/Kg		96	44 - 136	2	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	96		62 - 134

Lab Sample ID: MB 885-9146/1-A
Matrix: Solid
Analysis Batch: 9115

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9146

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 10:03	07/25/24 13:49	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 10:03	07/25/24 13:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134	07/25/24 10:03	07/25/24 13:49	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-9146/2-A
Matrix: Solid
Analysis Batch: 9115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9146

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	48.0		mg/Kg		96	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*

Lab Sample ID: 885-8504-29 MS
Matrix: Solid
Analysis Batch: 9115

Client Sample ID: BH24-58 2.0'
Prep Type: Total/NA
Prep Batch: 9146

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		48.5	46.9		mg/Kg		97	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*

Lab Sample ID: 885-8504-29 MSD
Matrix: Solid
Analysis Batch: 9115

Client Sample ID: BH24-58 2.0'
Prep Type: Total/NA
Prep Batch: 9146

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.0	43.7		mg/Kg		95	44 - 136	7	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*

Lab Sample ID: MB 885-9157/1-A
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9157

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 11:20	07/25/24 15:44	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 11:20	07/25/24 15:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*153*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 15:44*	*1*

Lab Sample ID: LCS 885-9157/2-A
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9157

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	57.2		mg/Kg		114	60 - 135		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-9157/2-A
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9157

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	99		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9074/1-A
Matrix: Solid
Analysis Batch: 9136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9074

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/24/24 14:31	07/24/24 19:12	1

Lab Sample ID: LCS 885-9074/2-A
Matrix: Solid
Analysis Batch: 9136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9074

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.4		mg/Kg		95	90 - 110		

Lab Sample ID: MB 885-9112/1-A
Matrix: Solid
Analysis Batch: 9107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9112

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/25/24 08:18	07/25/24 09:09	1

Lab Sample ID: LCS 885-9112/2-A
Matrix: Solid
Analysis Batch: 9107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9112

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	27.9		mg/Kg		93	90 - 110		

Lab Sample ID: 885-8504-7 MS
Matrix: Solid
Analysis Batch: 9107

Client Sample ID: BH24-51 0.0'
Prep Type: Total/NA
Prep Batch: 9112

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	65		30.1	94.6		mg/Kg		99	50 - 150		

Lab Sample ID: 885-8504-7 MSD
Matrix: Solid
Analysis Batch: 9107

Client Sample ID: BH24-51 0.0'
Prep Type: Total/NA
Prep Batch: 9112

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	65		30.1	93.0		mg/Kg		93	50 - 150	2	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-9136/4
Matrix: Solid
Analysis Batch: 9136

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			07/24/24 08:18	1

Lab Sample ID: MRL 885-9136/3
Matrix: Solid
Analysis Batch: 9136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.526		mg/L		105	50 - 150		

Lab Sample ID: MB 885-9153/1-A
Matrix: Solid
Analysis Batch: 9200

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9153

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/25/24 10:50	07/25/24 11:42	1

Lab Sample ID: LCS 885-9153/2-A
Matrix: Solid
Analysis Batch: 9200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.6		mg/Kg		95	90 - 110		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

GC VOA

Prep Batch: 9044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-1	BH24-49 0.0'	Total/NA	Solid	5030C	
885-8504-2	BH24-49 2.0'	Total/NA	Solid	5030C	
885-8504-3	BH24-49 4.0'	Total/NA	Solid	5030C	
885-8504-4	BH24-50 0.0'	Total/NA	Solid	5030C	
885-8504-5	BH24-50 2.0'	Total/NA	Solid	5030C	
885-8504-6	BH24-50 4.0'	Total/NA	Solid	5030C	
885-8504-7	BH24-51 0.0'	Total/NA	Solid	5030C	
885-8504-8	BH24-51 2.0'	Total/NA	Solid	5030C	
885-8504-9	BH24-51 4.0'	Total/NA	Solid	5030C	
885-8504-10	BH24-52 0.0'	Total/NA	Solid	5030C	
885-8504-11	BH24-52 2.0'	Total/NA	Solid	5030C	
885-8504-12	BH24-52 4.0'	Total/NA	Solid	5030C	
885-8504-13	BH24-53 0.0'	Total/NA	Solid	5030C	
885-8504-14	BH24-53 2.0'	Total/NA	Solid	5030C	
885-8504-15	BH24-53 4.0'	Total/NA	Solid	5030C	
MB 885-9044/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9044/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9044/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8504-1 MS	BH24-49 0.0'	Total/NA	Solid	5030C	
885-8504-1 MSD	BH24-49 0.0'	Total/NA	Solid	5030C	
885-8504-2 MS	BH24-49 2.0'	Total/NA	Solid	5030C	
885-8504-2 MSD	BH24-49 2.0'	Total/NA	Solid	5030C	

Prep Batch: 9063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-16	BH24-54 0.0'	Total/NA	Solid	5030C	
885-8504-17	BH24-54 2.0'	Total/NA	Solid	5030C	
885-8504-18	BH24-54 4.0'	Total/NA	Solid	5030C	
885-8504-19	BH24-55 0.0'	Total/NA	Solid	5030C	
885-8504-20	BH24-55 2.0'	Total/NA	Solid	5030C	
885-8504-21	BH24-55 4.0'	Total/NA	Solid	5030C	
885-8504-22	BH24-56 0.0'	Total/NA	Solid	5030C	
885-8504-23	BH24-56 2.0'	Total/NA	Solid	5030C	
885-8504-24	BH24-56 4.0'	Total/NA	Solid	5030C	
885-8504-25	BH24-57 0.0'	Total/NA	Solid	5030C	
885-8504-26	BH24-57 2.0'	Total/NA	Solid	5030C	
885-8504-27	BH24-57 4.0'	Total/NA	Solid	5030C	
885-8504-28	BH24-58 0.0'	Total/NA	Solid	5030C	
885-8504-29	BH24-58 2.0'	Total/NA	Solid	5030C	
885-8504-30	BH24-58 4.0'	Total/NA	Solid	5030C	
885-8504-31	BH24-59 0.0'	Total/NA	Solid	5030C	
885-8504-32	BH24-59 2.0'	Total/NA	Solid	5030C	
885-8504-33	BH24-59 4.0'	Total/NA	Solid	5030C	
MB 885-9063/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9063/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9063/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8504-16 MS	BH24-54 0.0'	Total/NA	Solid	5030C	
885-8504-16 MSD	BH24-54 0.0'	Total/NA	Solid	5030C	
885-8504-17 MS	BH24-54 2.0'	Total/NA	Solid	5030C	
885-8504-17 MSD	BH24-54 2.0'	Total/NA	Solid	5030C	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

GC VOA

Analysis Batch: 9196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-1	BH24-49 0.0'	Total/NA	Solid	8015M/D	9044
885-8504-2	BH24-49 2.0'	Total/NA	Solid	8015M/D	9044
885-8504-3	BH24-49 4.0'	Total/NA	Solid	8015M/D	9044
885-8504-4	BH24-50 0.0'	Total/NA	Solid	8015M/D	9044
885-8504-5	BH24-50 2.0'	Total/NA	Solid	8015M/D	9044
885-8504-6	BH24-50 4.0'	Total/NA	Solid	8015M/D	9044
885-8504-7	BH24-51 0.0'	Total/NA	Solid	8015M/D	9044
885-8504-8	BH24-51 2.0'	Total/NA	Solid	8015M/D	9044
885-8504-9	BH24-51 4.0'	Total/NA	Solid	8015M/D	9044
885-8504-10	BH24-52 0.0'	Total/NA	Solid	8015M/D	9044
885-8504-11	BH24-52 2.0'	Total/NA	Solid	8015M/D	9044
885-8504-12	BH24-52 4.0'	Total/NA	Solid	8015M/D	9044
885-8504-13	BH24-53 0.0'	Total/NA	Solid	8015M/D	9044
885-8504-14	BH24-53 2.0'	Total/NA	Solid	8015M/D	9044
885-8504-15	BH24-53 4.0'	Total/NA	Solid	8015M/D	9044
MB 885-9044/1-A	Method Blank	Total/NA	Solid	8015M/D	9044
LCS 885-9044/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9044
885-8504-1 MS	BH24-49 0.0'	Total/NA	Solid	8015M/D	9044
885-8504-1 MSD	BH24-49 0.0'	Total/NA	Solid	8015M/D	9044

Analysis Batch: 9197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-1	BH24-49 0.0'	Total/NA	Solid	8021B	9044
885-8504-2	BH24-49 2.0'	Total/NA	Solid	8021B	9044
885-8504-3	BH24-49 4.0'	Total/NA	Solid	8021B	9044
885-8504-4	BH24-50 0.0'	Total/NA	Solid	8021B	9044
885-8504-5	BH24-50 2.0'	Total/NA	Solid	8021B	9044
885-8504-6	BH24-50 4.0'	Total/NA	Solid	8021B	9044
885-8504-7	BH24-51 0.0'	Total/NA	Solid	8021B	9044
885-8504-8	BH24-51 2.0'	Total/NA	Solid	8021B	9044
885-8504-9	BH24-51 4.0'	Total/NA	Solid	8021B	9044
885-8504-10	BH24-52 0.0'	Total/NA	Solid	8021B	9044
885-8504-11	BH24-52 2.0'	Total/NA	Solid	8021B	9044
885-8504-12	BH24-52 4.0'	Total/NA	Solid	8021B	9044
885-8504-13	BH24-53 0.0'	Total/NA	Solid	8021B	9044
885-8504-14	BH24-53 2.0'	Total/NA	Solid	8021B	9044
885-8504-15	BH24-53 4.0'	Total/NA	Solid	8021B	9044
MB 885-9044/1-A	Method Blank	Total/NA	Solid	8021B	9044
LCS 885-9044/3-A	Lab Control Sample	Total/NA	Solid	8021B	9044
885-8504-2 MS	BH24-49 2.0'	Total/NA	Solid	8021B	9044
885-8504-2 MSD	BH24-49 2.0'	Total/NA	Solid	8021B	9044

Analysis Batch: 9271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-16	BH24-54 0.0'	Total/NA	Solid	8015M/D	9063
885-8504-17	BH24-54 2.0'	Total/NA	Solid	8015M/D	9063
885-8504-18	BH24-54 4.0'	Total/NA	Solid	8015M/D	9063
885-8504-19	BH24-55 0.0'	Total/NA	Solid	8015M/D	9063
885-8504-20	BH24-55 2.0'	Total/NA	Solid	8015M/D	9063
885-8504-21	BH24-55 4.0'	Total/NA	Solid	8015M/D	9063
885-8504-22	BH24-56 0.0'	Total/NA	Solid	8015M/D	9063

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

GC VOA (Continued)

Analysis Batch: 9271 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-23	BH24-56 2.0'	Total/NA	Solid	8015M/D	9063
885-8504-24	BH24-56 4.0'	Total/NA	Solid	8015M/D	9063
885-8504-25	BH24-57 0.0'	Total/NA	Solid	8015M/D	9063
885-8504-26	BH24-57 2.0'	Total/NA	Solid	8015M/D	9063
885-8504-27	BH24-57 4.0'	Total/NA	Solid	8015M/D	9063
885-8504-28	BH24-58 0.0'	Total/NA	Solid	8015M/D	9063
885-8504-29	BH24-58 2.0'	Total/NA	Solid	8015M/D	9063
885-8504-30	BH24-58 4.0'	Total/NA	Solid	8015M/D	9063
885-8504-31	BH24-59 0.0'	Total/NA	Solid	8015M/D	9063
885-8504-32	BH24-59 2.0'	Total/NA	Solid	8015M/D	9063
885-8504-33	BH24-59 4.0'	Total/NA	Solid	8015M/D	9063
MB 885-9063/1-A	Method Blank	Total/NA	Solid	8015M/D	9063
LCS 885-9063/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9063
885-8504-16 MS	BH24-54 0.0'	Total/NA	Solid	8015M/D	9063
885-8504-16 MSD	BH24-54 0.0'	Total/NA	Solid	8015M/D	9063

Analysis Batch: 9272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-16	BH24-54 0.0'	Total/NA	Solid	8021B	9063
885-8504-17	BH24-54 2.0'	Total/NA	Solid	8021B	9063
885-8504-18	BH24-54 4.0'	Total/NA	Solid	8021B	9063
885-8504-19	BH24-55 0.0'	Total/NA	Solid	8021B	9063
885-8504-20	BH24-55 2.0'	Total/NA	Solid	8021B	9063
885-8504-21	BH24-55 4.0'	Total/NA	Solid	8021B	9063
885-8504-22	BH24-56 0.0'	Total/NA	Solid	8021B	9063
885-8504-23	BH24-56 2.0'	Total/NA	Solid	8021B	9063
885-8504-24	BH24-56 4.0'	Total/NA	Solid	8021B	9063
885-8504-25	BH24-57 0.0'	Total/NA	Solid	8021B	9063
885-8504-26	BH24-57 2.0'	Total/NA	Solid	8021B	9063
885-8504-27	BH24-57 4.0'	Total/NA	Solid	8021B	9063
885-8504-28	BH24-58 0.0'	Total/NA	Solid	8021B	9063
885-8504-29	BH24-58 2.0'	Total/NA	Solid	8021B	9063
885-8504-30	BH24-58 4.0'	Total/NA	Solid	8021B	9063
885-8504-31	BH24-59 0.0'	Total/NA	Solid	8021B	9063
885-8504-32	BH24-59 2.0'	Total/NA	Solid	8021B	9063
885-8504-33	BH24-59 4.0'	Total/NA	Solid	8021B	9063
MB 885-9063/1-A	Method Blank	Total/NA	Solid	8021B	9063
LCS 885-9063/3-A	Lab Control Sample	Total/NA	Solid	8021B	9063
885-8504-17 MS	BH24-54 2.0'	Total/NA	Solid	8021B	9063
885-8504-17 MSD	BH24-54 2.0'	Total/NA	Solid	8021B	9063

GC Semi VOA

Analysis Batch: 9050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-1	BH24-49 0.0'	Total/NA	Solid	8015M/D	9060
885-8504-2	BH24-49 2.0'	Total/NA	Solid	8015M/D	9060
885-8504-3	BH24-49 4.0'	Total/NA	Solid	8015M/D	9060
885-8504-4	BH24-50 0.0'	Total/NA	Solid	8015M/D	9060
885-8504-5	BH24-50 2.0'	Total/NA	Solid	8015M/D	9060
885-8504-6	BH24-50 4.0'	Total/NA	Solid	8015M/D	9082

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

GC Semi VOA (Continued)

Analysis Batch: 9050 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-7	BH24-51 0.0'	Total/NA	Solid	8015M/D	9082
885-8504-8	BH24-51 2.0'	Total/NA	Solid	8015M/D	9082
885-8504-9	BH24-51 4.0'	Total/NA	Solid	8015M/D	9082
885-8504-10	BH24-52 0.0'	Total/NA	Solid	8015M/D	9082
885-8504-11	BH24-52 2.0'	Total/NA	Solid	8015M/D	9082
885-8504-12	BH24-52 4.0'	Total/NA	Solid	8015M/D	9082
885-8504-13	BH24-53 0.0'	Total/NA	Solid	8015M/D	9082
885-8504-14	BH24-53 2.0'	Total/NA	Solid	8015M/D	9082
885-8504-15	BH24-53 4.0'	Total/NA	Solid	8015M/D	9082
885-8504-16	BH24-54 0.0'	Total/NA	Solid	8015M/D	9082
885-8504-17	BH24-54 2.0'	Total/NA	Solid	8015M/D	9082
885-8504-18	BH24-54 4.0'	Total/NA	Solid	8015M/D	9082
885-8504-19	BH24-55 0.0'	Total/NA	Solid	8015M/D	9082
885-8504-20	BH24-55 2.0'	Total/NA	Solid	8015M/D	9082
885-8504-21	BH24-55 4.0'	Total/NA	Solid	8015M/D	9082
885-8504-22	BH24-56 0.0'	Total/NA	Solid	8015M/D	9082
885-8504-23	BH24-56 2.0'	Total/NA	Solid	8015M/D	9082
885-8504-24	BH24-56 4.0'	Total/NA	Solid	8015M/D	9082
885-8504-25	BH24-57 0.0'	Total/NA	Solid	8015M/D	9082
MB 885-9060/1-A	Method Blank	Total/NA	Solid	8015M/D	9060
MB 885-9082/1-A	Method Blank	Total/NA	Solid	8015M/D	9082
LCS 885-9060/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9060
LCS 885-9082/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9082
885-8504-5 MS	BH24-50 2.0'	Total/NA	Solid	8015M/D	9060
885-8504-5 MSD	BH24-50 2.0'	Total/NA	Solid	8015M/D	9060
885-8504-25 MS	BH24-57 0.0'	Total/NA	Solid	8015M/D	9082
885-8504-25 MSD	BH24-57 0.0'	Total/NA	Solid	8015M/D	9082

Prep Batch: 9060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-1	BH24-49 0.0'	Total/NA	Solid	SHAKE	
885-8504-2	BH24-49 2.0'	Total/NA	Solid	SHAKE	
885-8504-3	BH24-49 4.0'	Total/NA	Solid	SHAKE	
885-8504-4	BH24-50 0.0'	Total/NA	Solid	SHAKE	
885-8504-5	BH24-50 2.0'	Total/NA	Solid	SHAKE	
MB 885-9060/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9060/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8504-5 MS	BH24-50 2.0'	Total/NA	Solid	SHAKE	
885-8504-5 MSD	BH24-50 2.0'	Total/NA	Solid	SHAKE	

Prep Batch: 9082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-6	BH24-50 4.0'	Total/NA	Solid	SHAKE	
885-8504-7	BH24-51 0.0'	Total/NA	Solid	SHAKE	
885-8504-8	BH24-51 2.0'	Total/NA	Solid	SHAKE	
885-8504-9	BH24-51 4.0'	Total/NA	Solid	SHAKE	
885-8504-10	BH24-52 0.0'	Total/NA	Solid	SHAKE	
885-8504-11	BH24-52 2.0'	Total/NA	Solid	SHAKE	
885-8504-12	BH24-52 4.0'	Total/NA	Solid	SHAKE	
885-8504-13	BH24-53 0.0'	Total/NA	Solid	SHAKE	
885-8504-14	BH24-53 2.0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

GC Semi VOA (Continued)

Prep Batch: 9082 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-15	BH24-53 4.0'	Total/NA	Solid	SHAKE	
885-8504-16	BH24-54 0.0'	Total/NA	Solid	SHAKE	
885-8504-17	BH24-54 2.0'	Total/NA	Solid	SHAKE	
885-8504-18	BH24-54 4.0'	Total/NA	Solid	SHAKE	
885-8504-19	BH24-55 0.0'	Total/NA	Solid	SHAKE	
885-8504-20	BH24-55 2.0'	Total/NA	Solid	SHAKE	
885-8504-21	BH24-55 4.0'	Total/NA	Solid	SHAKE	
885-8504-22	BH24-56 0.0'	Total/NA	Solid	SHAKE	
885-8504-23	BH24-56 2.0'	Total/NA	Solid	SHAKE	
885-8504-24	BH24-56 4.0'	Total/NA	Solid	SHAKE	
885-8504-25	BH24-57 0.0'	Total/NA	Solid	SHAKE	
MB 885-9082/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9082/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8504-25 MS	BH24-57 0.0'	Total/NA	Solid	SHAKE	
885-8504-25 MSD	BH24-57 0.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 9115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-26	BH24-57 2.0'	Total/NA	Solid	8015M/D	9146
885-8504-27	BH24-57 4.0'	Total/NA	Solid	8015M/D	9146
885-8504-28	BH24-58 0.0'	Total/NA	Solid	8015M/D	9146
885-8504-29	BH24-58 2.0'	Total/NA	Solid	8015M/D	9146
MB 885-9146/1-A	Method Blank	Total/NA	Solid	8015M/D	9146
LCS 885-9146/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9146
885-8504-29 MS	BH24-58 2.0'	Total/NA	Solid	8015M/D	9146
885-8504-29 MSD	BH24-58 2.0'	Total/NA	Solid	8015M/D	9146

Prep Batch: 9146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-26	BH24-57 2.0'	Total/NA	Solid	SHAKE	
885-8504-27	BH24-57 4.0'	Total/NA	Solid	SHAKE	
885-8504-28	BH24-58 0.0'	Total/NA	Solid	SHAKE	
885-8504-29	BH24-58 2.0'	Total/NA	Solid	SHAKE	
MB 885-9146/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9146/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8504-29 MS	BH24-58 2.0'	Total/NA	Solid	SHAKE	
885-8504-29 MSD	BH24-58 2.0'	Total/NA	Solid	SHAKE	

Prep Batch: 9157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-30	BH24-58 4.0'	Total/NA	Solid	SHAKE	
885-8504-31	BH24-59 0.0'	Total/NA	Solid	SHAKE	
885-8504-32	BH24-59 2.0'	Total/NA	Solid	SHAKE	
885-8504-33	BH24-59 4.0'	Total/NA	Solid	SHAKE	
MB 885-9157/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9157/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 9203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-30	BH24-58 4.0'	Total/NA	Solid	8015M/D	9157
885-8504-31	BH24-59 0.0'	Total/NA	Solid	8015M/D	9157

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

GC Semi VOA (Continued)

Analysis Batch: 9203 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-32	BH24-59 2.0'	Total/NA	Solid	8015M/D	9157
885-8504-33	BH24-59 4.0'	Total/NA	Solid	8015M/D	9157
MB 885-9157/1-A	Method Blank	Total/NA	Solid	8015M/D	9157
LCS 885-9157/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9157

HPLC/IC

Prep Batch: 9074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-1	BH24-49 0.0'	Total/NA	Solid	300_Prep	
885-8504-2	BH24-49 2.0'	Total/NA	Solid	300_Prep	
885-8504-3	BH24-49 4.0'	Total/NA	Solid	300_Prep	
885-8504-4	BH24-50 0.0'	Total/NA	Solid	300_Prep	
885-8504-5	BH24-50 2.0'	Total/NA	Solid	300_Prep	
MB 885-9074/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9074/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-6	BH24-50 4.0'	Total/NA	Solid	300.0	9112
885-8504-7	BH24-51 0.0'	Total/NA	Solid	300.0	9112
885-8504-8	BH24-51 2.0'	Total/NA	Solid	300.0	9112
885-8504-9	BH24-51 4.0'	Total/NA	Solid	300.0	9112
885-8504-10	BH24-52 0.0'	Total/NA	Solid	300.0	9112
885-8504-11	BH24-52 2.0'	Total/NA	Solid	300.0	9112
885-8504-12	BH24-52 4.0'	Total/NA	Solid	300.0	9112
885-8504-13	BH24-53 0.0'	Total/NA	Solid	300.0	9112
885-8504-14	BH24-53 2.0'	Total/NA	Solid	300.0	9112
885-8504-15	BH24-53 4.0'	Total/NA	Solid	300.0	9112
885-8504-16	BH24-54 0.0'	Total/NA	Solid	300.0	9112
885-8504-17	BH24-54 2.0'	Total/NA	Solid	300.0	9112
885-8504-18	BH24-54 4.0'	Total/NA	Solid	300.0	9112
885-8504-19	BH24-55 0.0'	Total/NA	Solid	300.0	9112
885-8504-20	BH24-55 2.0'	Total/NA	Solid	300.0	9112
885-8504-21	BH24-55 4.0'	Total/NA	Solid	300.0	9112
885-8504-22	BH24-56 0.0'	Total/NA	Solid	300.0	9112
885-8504-23	BH24-56 2.0'	Total/NA	Solid	300.0	9112
885-8504-24	BH24-56 4.0'	Total/NA	Solid	300.0	9112
885-8504-25	BH24-57 0.0'	Total/NA	Solid	300.0	9112
MB 885-9112/1-A	Method Blank	Total/NA	Solid	300.0	9112
LCS 885-9112/2-A	Lab Control Sample	Total/NA	Solid	300.0	9112
885-8504-7 MS	BH24-51 0.0'	Total/NA	Solid	300.0	9112
885-8504-7 MSD	BH24-51 0.0'	Total/NA	Solid	300.0	9112

Prep Batch: 9112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-6	BH24-50 4.0'	Total/NA	Solid	300_Prep	
885-8504-7	BH24-51 0.0'	Total/NA	Solid	300_Prep	
885-8504-8	BH24-51 2.0'	Total/NA	Solid	300_Prep	
885-8504-9	BH24-51 4.0'	Total/NA	Solid	300_Prep	
885-8504-10	BH24-52 0.0'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

HPLC/IC (Continued)

Prep Batch: 9112 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-11	BH24-52 2.0'	Total/NA	Solid	300_Prep	
885-8504-12	BH24-52 4.0'	Total/NA	Solid	300_Prep	
885-8504-13	BH24-53 0.0'	Total/NA	Solid	300_Prep	
885-8504-14	BH24-53 2.0'	Total/NA	Solid	300_Prep	
885-8504-15	BH24-53 4.0'	Total/NA	Solid	300_Prep	
885-8504-16	BH24-54 0.0'	Total/NA	Solid	300_Prep	
885-8504-17	BH24-54 2.0'	Total/NA	Solid	300_Prep	
885-8504-18	BH24-54 4.0'	Total/NA	Solid	300_Prep	
885-8504-19	BH24-55 0.0'	Total/NA	Solid	300_Prep	
885-8504-20	BH24-55 2.0'	Total/NA	Solid	300_Prep	
885-8504-21	BH24-55 4.0'	Total/NA	Solid	300_Prep	
885-8504-22	BH24-56 0.0'	Total/NA	Solid	300_Prep	
885-8504-23	BH24-56 2.0'	Total/NA	Solid	300_Prep	
885-8504-24	BH24-56 4.0'	Total/NA	Solid	300_Prep	
885-8504-25	BH24-57 0.0'	Total/NA	Solid	300_Prep	
MB 885-9112/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9112/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-8504-7 MS	BH24-51 0.0'	Total/NA	Solid	300_Prep	
885-8504-7 MSD	BH24-51 0.0'	Total/NA	Solid	300_Prep	

Analysis Batch: 9136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-1	BH24-49 0.0'	Total/NA	Solid	300.0	9074
885-8504-2	BH24-49 2.0'	Total/NA	Solid	300.0	9074
885-8504-3	BH24-49 4.0'	Total/NA	Solid	300.0	9074
885-8504-4	BH24-50 0.0'	Total/NA	Solid	300.0	9074
885-8504-5	BH24-50 2.0'	Total/NA	Solid	300.0	9074
MB 885-9074/1-A	Method Blank	Total/NA	Solid	300.0	9074
MB 885-9136/4	Method Blank	Total/NA	Solid	300.0	
LCS 885-9074/2-A	Lab Control Sample	Total/NA	Solid	300.0	9074
MRL 885-9136/3	Lab Control Sample	Total/NA	Solid	300.0	

Prep Batch: 9153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-26	BH24-57 2.0'	Total/NA	Solid	300_Prep	
885-8504-27	BH24-57 4.0'	Total/NA	Solid	300_Prep	
885-8504-28	BH24-58 0.0'	Total/NA	Solid	300_Prep	
885-8504-29	BH24-58 2.0'	Total/NA	Solid	300_Prep	
885-8504-30	BH24-58 4.0'	Total/NA	Solid	300_Prep	
885-8504-31	BH24-59 0.0'	Total/NA	Solid	300_Prep	
885-8504-32	BH24-59 2.0'	Total/NA	Solid	300_Prep	
885-8504-33	BH24-59 4.0'	Total/NA	Solid	300_Prep	
MB 885-9153/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9153/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-26	BH24-57 2.0'	Total/NA	Solid	300.0	9153
885-8504-27	BH24-57 4.0'	Total/NA	Solid	300.0	9153
885-8504-28	BH24-58 0.0'	Total/NA	Solid	300.0	9153
885-8504-29	BH24-58 2.0'	Total/NA	Solid	300.0	9153

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

HPLC/IC (Continued)

Analysis Batch: 9200 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8504-30	BH24-58 4.0'	Total/NA	Solid	300.0	9153
885-8504-31	BH24-59 0.0'	Total/NA	Solid	300.0	9153
885-8504-32	BH24-59 2.0'	Total/NA	Solid	300.0	9153
885-8504-33	BH24-59 4.0'	Total/NA	Solid	300.0	9153
MB 885-9153/1-A	Method Blank	Total/NA	Solid	300.0	9153
LCS 885-9153/2-A	Lab Control Sample	Total/NA	Solid	300.0	9153

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8504-1

Client Sample ID: BH24-49 0.0'

Lab Sample ID: 885-8504-1
Matrix: Solid
Date Collected: 07/19/24 10:30
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/25/24 21:29
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/25/24 21:29
Total/NA	Prep	SHAKE			9060	KR	EET ALB	07/24/24 12:14
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 05:10
Total/NA	Prep	300_Prep			9074	EH	EET ALB	07/24/24 14:31
Total/NA	Analysis	300.0		20	9136	RC	EET ALB	07/24/24 23:32

Client Sample ID: BH24-49 2.0'

Lab Sample ID: 885-8504-2
Matrix: Solid
Date Collected: 07/19/24 10:35
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/25/24 22:39
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/25/24 22:39
Total/NA	Prep	SHAKE			9060	KR	EET ALB	07/24/24 12:14
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 05:21
Total/NA	Prep	300_Prep			9074	EH	EET ALB	07/24/24 14:31
Total/NA	Analysis	300.0		20	9136	RC	EET ALB	07/24/24 23:44

Client Sample ID: BH24-49 4.0'

Lab Sample ID: 885-8504-3
Matrix: Solid
Date Collected: 07/19/24 10:40
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/25/24 23:49
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/25/24 23:49
Total/NA	Prep	SHAKE			9060	KR	EET ALB	07/24/24 12:14
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 05:32
Total/NA	Prep	300_Prep			9074	EH	EET ALB	07/24/24 14:31
Total/NA	Analysis	300.0		20	9136	RC	EET ALB	07/24/24 23:56

Client Sample ID: BH24-50 0.0'

Lab Sample ID: 885-8504-4
Matrix: Solid
Date Collected: 07/19/24 10:50
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 00:13

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-50 0.0'
Lab Sample ID: 885-8504-4
Date Collected: 07/19/24 10:50
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 00:13
Total/NA	Prep	SHAKE			9060	KR	EET ALB	07/24/24 12:14
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 05:43
Total/NA	Prep	300_Prep			9074	EH	EET ALB	07/24/24 14:31
Total/NA	Analysis	300.0		20	9136	RC	EET ALB	07/25/24 00:09

Client Sample ID: BH24-50 2.0'
Lab Sample ID: 885-8504-5
Date Collected: 07/19/24 10:55
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 00:36
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 00:36
Total/NA	Prep	SHAKE			9060	KR	EET ALB	07/24/24 12:14
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 05:54
Total/NA	Prep	300_Prep			9074	EH	EET ALB	07/24/24 14:31
Total/NA	Analysis	300.0		20	9136	RC	EET ALB	07/25/24 00:21

Client Sample ID: BH24-50 4.0'
Lab Sample ID: 885-8504-6
Date Collected: 07/19/24 11:00
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 00:59
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 00:59
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 21:20
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 10:01

Client Sample ID: BH24-51 0.0'
Lab Sample ID: 885-8504-7
Date Collected: 07/19/24 11:05
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 01:23
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 01:23

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-51 0.0'
Lab Sample ID: 885-8504-7
Date Collected: 07/19/24 11:05
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 21:32
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 10:39

Client Sample ID: BH24-51 2.0'
Lab Sample ID: 885-8504-8
Date Collected: 07/19/24 11:10
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 01:46
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 01:46
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 21:43
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 11:18

Client Sample ID: BH24-51 4.0'
Lab Sample ID: 885-8504-9
Date Collected: 07/19/24 11:15
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 02:10
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 02:10
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 21:54
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 11:31

Client Sample ID: BH24-52 0.0'
Lab Sample ID: 885-8504-10
Date Collected: 07/19/24 11:30
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 02:33
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 02:33
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 22:05

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-52 0.0'
Lab Sample ID: 885-8504-10
Date Collected: 07/19/24 11:30
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 12:09

Client Sample ID: BH24-52 2.0'
Lab Sample ID: 885-8504-11
Date Collected: 07/19/24 11:35
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 03:20
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 03:20
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 22:16
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 12:22

Client Sample ID: BH24-52 4.0'
Lab Sample ID: 885-8504-12
Date Collected: 07/19/24 11:40
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 03:43
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 03:43
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 22:28
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 12:35

Client Sample ID: BH24-53 0.0'
Lab Sample ID: 885-8504-13
Date Collected: 07/19/24 11:50
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 04:07
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 04:07
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 22:39
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 12:48

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-53 2.0'
Lab Sample ID: 885-8504-14
Date Collected: 07/19/24 11:55
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 04:30
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 04:30
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 22:50
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 13:01

Client Sample ID: BH24-53 4.0'
Lab Sample ID: 885-8504-15
Date Collected: 07/19/24 12:00
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8015M/D		1	9196	JP	EET ALB	07/26/24 04:54
Total/NA	Prep	5030C			9044	JP	EET ALB	07/24/24 10:36
Total/NA	Analysis	8021B		1	9197	JP	EET ALB	07/26/24 04:54
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 23:12
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 13:14

Client Sample ID: BH24-54 0.0'
Lab Sample ID: 885-8504-16
Date Collected: 07/20/24 09:35
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/25/24 23:53
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/25/24 23:53
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 23:23
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 13:26

Client Sample ID: BH24-54 2.0'
Lab Sample ID: 885-8504-17
Date Collected: 07/20/24 09:40
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 00:58

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-54 2.0'
Lab Sample ID: 885-8504-17
Date Collected: 07/20/24 09:40
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 00:58
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 23:35
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 13:39

Client Sample ID: BH24-54 4.0'
Lab Sample ID: 885-8504-18
Date Collected: 07/20/24 09:45
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 02:04
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 02:04
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 23:46
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 13:52

Client Sample ID: BH24-55 0.0'
Lab Sample ID: 885-8504-19
Date Collected: 07/20/24 10:00
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 02:25
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 02:25
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/24/24 23:57
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 14:05

Client Sample ID: BH24-55 2.0'
Lab Sample ID: 885-8504-20
Date Collected: 07/20/24 10:05
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 02:47
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 02:47

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-55 2.0'
Lab Sample ID: 885-8504-20
Date Collected: 07/20/24 10:05
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 00:08
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 14:44

Client Sample ID: BH24-55 4.0'
Lab Sample ID: 885-8504-21
Date Collected: 07/20/24 10:10
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 03:09
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 03:09
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 00:19
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 14:56

Client Sample ID: BH24-56 0.0'
Lab Sample ID: 885-8504-22
Date Collected: 07/20/24 10:25
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 03:31
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 03:31
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 00:30
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 15:09

Client Sample ID: BH24-56 2.0'
Lab Sample ID: 885-8504-23
Date Collected: 07/20/24 10:30
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 03:52
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 03:52
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 00:42

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-56 2.0'
Lab Sample ID: 885-8504-23
Date Collected: 07/20/24 10:30
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 15:22

Client Sample ID: BH24-56 4.0'
Lab Sample ID: 885-8504-24
Date Collected: 07/20/24 10:35
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 04:14
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 04:14
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 00:53
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 15:35

Client Sample ID: BH24-57 0.0'
Lab Sample ID: 885-8504-25
Date Collected: 07/20/24 10:40
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 04:36
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 04:36
Total/NA	Prep	SHAKE			9082	KR	EET ALB	07/24/24 15:16
Total/NA	Analysis	8015M/D		1	9050	KR	EET ALB	07/25/24 01:04
Total/NA	Prep	300_Prep			9112	RC	EET ALB	07/25/24 08:18
Total/NA	Analysis	300.0		20	9107	RC	EET ALB	07/25/24 15:48

Client Sample ID: BH24-57 2.0'
Lab Sample ID: 885-8504-26
Date Collected: 07/20/24 10:45
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 05:20
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 05:20
Total/NA	Prep	SHAKE			9146	KR	EET ALB	07/25/24 10:03
Total/NA	Analysis	8015M/D		1	9115	KR	EET ALB	07/25/24 17:35
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 15:00

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-57 4.0'
Lab Sample ID: 885-8504-27
Date Collected: 07/20/24 10:50
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 05:41
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 05:41
Total/NA	Prep	SHAKE			9146	KR	EET ALB	07/25/24 10:03
Total/NA	Analysis	8015M/D		1	9115	KR	EET ALB	07/25/24 17:46
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 15:12

Client Sample ID: BH24-58 0.0'
Lab Sample ID: 885-8504-28
Date Collected: 07/20/24 11:00
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 06:03
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 06:03
Total/NA	Prep	SHAKE			9146	KR	EET ALB	07/25/24 10:03
Total/NA	Analysis	8015M/D		1	9115	KR	EET ALB	07/25/24 17:58
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 15:25

Client Sample ID: BH24-58 2.0'
Lab Sample ID: 885-8504-29
Date Collected: 07/20/24 11:05
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 06:25
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 06:25
Total/NA	Prep	SHAKE			9146	KR	EET ALB	07/25/24 10:03
Total/NA	Analysis	8015M/D		1	9115	KR	EET ALB	07/25/24 18:09
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 15:37

Client Sample ID: BH24-58 4.0'
Lab Sample ID: 885-8504-30
Date Collected: 07/20/24 11:10
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 06:47

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-58 4.0'
Lab Sample ID: 885-8504-30
Date Collected: 07/20/24 11:10
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 06:47
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 16:32
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 15:49

Client Sample ID: BH24-59 0.0'
Lab Sample ID: 885-8504-31
Date Collected: 07/20/24 11:15
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 07:08
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 07:08
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 16:56
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 16:02

Client Sample ID: BH24-59 2.0'
Lab Sample ID: 885-8504-32
Date Collected: 07/20/24 11:20
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 07:30
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 07:30
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 17:20
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 16:39

Client Sample ID: BH24-59 4.0'
Lab Sample ID: 885-8504-33
Date Collected: 07/20/24 11:25
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 07:52
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 07:52

Lab Chronicle

Client: Vertex
Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-59 4.0'
Lab Sample ID: 885-8504-33

Date Collected: 07/20/24 11:25
Matrix: Solid
Date Received: 07/24/24 06:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 17:45
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 16:51

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8504-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: On File

email or Fax#: N

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No Yes

# of Coolers: 1

Cooler Temp(including CF): 1.5 ± 0 = 1.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710
Tel. 505-345-3975 Fax 505-345-4107

885-8504 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.19.24	1030	Soil	BH24-49 0.0'	4oz	ICE	1										
	1035		BH24-49 2.0'			2										
	1040		BH24-49 4.0'			3										
	1050		BH24-50 0.0'			4										
	1055		BH24-50 2.0'			5										
	1100		BH24-50 4.0'			6										
	1105		BH24-51 0.0'			7										
	1110		BH24-51 2.0'			8										
	1115		BH24-51 4.0'			9										
	1130		BH24-52 0.0'			10										
	1135		BH24-52 2.0'			11										
	1140		BH24-52 4.0'			12										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1030				7/23/24	1030
7/23/24	1900			courier	7/24/24	7:15

Remarks: Direct Bill to Mack Energy
CC: scarttar@vertex.ca
Aludvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 1.5+0=1.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.19.24	1150	Soil	BH24-53 0.0'	4oz	ICE	13										
↓	1155	↓	BH24-53 2.0'	↓	↓	14										
↓	1200	↓	BH24-53 4.0'	↓	↓	15	↓	↓					↓			
7.20.24	0935		BH24-54 0.0'			16										
↓	0940		BH24-54 2.0'			17										
	0945		BH24-54 4.0'			18										
	1000		BH24-55 0.0'			19										
	1005		BH24-55 2.0'			20										
	1010		BH24-55 4.0'			21										
	1025		BH24-56 0.0'			22										
	1030		BH24-56 2.0'			23										
↓	1035	↓	BH24-56 4.0'	↓	↓	24	↓	↓					↓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1030				7/23/24	1030
7/23/24	1920			Courier	7/24/24	7:15

Remarks: Direct Bill to Mack Energy
CC: Scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp (including CF): 1.5 ± 0 = 1.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.20.24	1040	Soil	BH24-57 0.0'	4oz	ICE	25	✓	✓					✓			
↓	1045	↓	BH24-57 2.0'	↓	↓	26										
	1050		BH24-57 4.0'			27										
	1100		BH24-58 0.0'			28										
	1105		BH24-58 2.0'			29										
	1110		BH24-58 4.0'			30										
	1115		BH24-59 0.0'			31										
	1120		BH24-59 2.0'			32										
↓	1125	↓	BH24-59 4.0'	↓	↓	33	↓	↓					↓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1030				7/23/24	1030
7/23/24	1900			Courier	7/24/24	7:15

Remarks: Direct Bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8504-1

Login Number: 8504 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 7/30/2024 9:44:39 AM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8505-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
7/30/2024 9:44:39 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8505-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 42
QC Association Summary 51
Lab Chronicle 59
Certification Summary 71
Chain of Custody 72
Receipt Checklists 75

Definitions/Glossary

Client: Vertex Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8505-1
Project: Dawson Creek State #2

Job ID: 885-8505-1 Eurofins Albuquerque

Job Narrative
885-8505-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/24/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: BH24-60 0.0' (885-8505-1), BH24-60 2.0' (885-8505-2), BH24-60 4.0' (885-8505-3), BH24-61 0.0' (885-8505-4), BH24-61 2.0' (885-8505-5) and (MB 885-9157/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: BH24-66 0.0' (885-8505-19), BH24-66 2.0' (885-8505-20), BH24-66 4.0' (885-8505-21), BH24-67 0.0' (885-8505-22), BH24-67 2.0' (885-8505-23), BH24-67 4.0' (885-8505-24), BH24-68 0.0' (885-8505-25), BH24-68 2.0' (885-8505-26) and BH24-68 4.0' (885-8505-27). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-60 0.0'

Date Collected: 07/21/24 09:45
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 12:27	07/26/24 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 12:27*	*07/26/24 08:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/26/24 08:14	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 08:14	1
Toluene	ND		0.049		mg/Kg		07/24/24 12:27	07/26/24 08:14	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 12:27	07/26/24 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 12:27*	*07/26/24 08:14*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/25/24 11:20	07/25/24 18:10	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/25/24 11:20	07/25/24 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*141*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 18:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 17:04	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-60 2.0'
Lab Sample ID: 885-8505-2
Date Collected: 07/21/24 09:50
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 12:27	07/26/24 08:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/24/24 12:27*	*07/26/24 08:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 12:27	07/26/24 08:35	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 08:35	1
Toluene	ND		0.048		mg/Kg		07/24/24 12:27	07/26/24 08:35	1
Xylenes, Total	ND		0.095		mg/Kg		07/24/24 12:27	07/26/24 08:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/26/24 08:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/25/24 11:20	07/25/24 18:35	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/25/24 11:20	07/25/24 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*156*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 18:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		60		mg/Kg		07/25/24 10:50	07/25/24 17:16	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-60 4.0'

Date Collected: 07/21/24 09:55
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 14:41	07/26/24 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/24/24 14:41*	*07/26/24 18:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/26/24 18:23	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 14:41	07/26/24 18:23	1
Toluene	ND		0.048		mg/Kg		07/24/24 14:41	07/26/24 18:23	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 14:41	07/26/24 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 14:41*	*07/26/24 18:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		07/25/24 11:20	07/25/24 18:59	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:20	07/25/24 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*150*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 18:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 17:28	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-61 0.0'

Date Collected: 07/21/24 10:00
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 14:41	07/26/24 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 14:41*	*07/26/24 19:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/26/24 19:34	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 14:41	07/26/24 19:34	1
Toluene	ND		0.047		mg/Kg		07/24/24 14:41	07/26/24 19:34	1
Xylenes, Total	ND		0.095		mg/Kg		07/24/24 14:41	07/26/24 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 14:41*	*07/26/24 19:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.4		mg/Kg		07/25/24 11:20	07/25/24 19:24	1
Motor Oil Range Organics [C28-C40]	ND		42		mg/Kg		07/25/24 11:20	07/25/24 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*162*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 19:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 10:50	07/25/24 17:41	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-61 2.0'

Date Collected: 07/21/24 10:05
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 14:41	07/26/24 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/24/24 14:41*	*07/26/24 20:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/26/24 20:44	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 14:41	07/26/24 20:44	1
Toluene	ND		0.049		mg/Kg		07/24/24 14:41	07/26/24 20:44	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 14:41	07/26/24 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 14:41*	*07/26/24 20:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/25/24 11:20	07/25/24 19:49	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:20	07/25/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*141*	*S1+*	*62 - 134*	*07/25/24 11:20*	*07/25/24 19:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 18:18	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-61 4.0'
Lab Sample ID: 885-8505-6
Date Collected: 07/21/24 10:10
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 14:41	07/26/24 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 14:41*	*07/26/24 21:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/26/24 21:31	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 14:41	07/26/24 21:31	1
Toluene	ND		0.049		mg/Kg		07/24/24 14:41	07/26/24 21:31	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 14:41	07/26/24 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/24/24 14:41*	*07/26/24 21:31*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/25/24 11:20	07/25/24 20:38	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/25/24 11:20	07/25/24 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*07/25/24 11:20*	*07/25/24 20:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 18:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-62 0.0'

Date Collected: 07/21/24 10:20
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 14:41	07/26/24 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 14:41*	*07/26/24 21:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/26/24 21:55	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 14:41	07/26/24 21:55	1
Toluene	ND		0.048		mg/Kg		07/24/24 14:41	07/26/24 21:55	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 14:41	07/26/24 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 14:41*	*07/26/24 21:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/25/24 11:20	07/25/24 21:03	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:20	07/25/24 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/25/24 11:20*	*07/25/24 21:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 19:56	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-62 2.0'
Lab Sample ID: 885-8505-8
Date Collected: 07/21/24 10:25
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 14:41	07/26/24 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 14:41*	*07/26/24 22:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/26/24 22:18	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 14:41	07/26/24 22:18	1
Toluene	ND		0.049		mg/Kg		07/24/24 14:41	07/26/24 22:18	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 14:41	07/26/24 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 14:41*	*07/26/24 22:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/25/24 11:20	07/25/24 21:28	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/25/24 11:20	07/25/24 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/25/24 11:20*	*07/25/24 21:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 20:09	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-62 4.0'

Date Collected: 07/21/24 10:30
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/24/24 14:41	07/26/24 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 14:41*	*07/26/24 22:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 14:41	07/26/24 22:42	1
Ethylbenzene	ND		0.046		mg/Kg		07/24/24 14:41	07/26/24 22:42	1
Toluene	ND		0.046		mg/Kg		07/24/24 14:41	07/26/24 22:42	1
Xylenes, Total	ND		0.093		mg/Kg		07/24/24 14:41	07/26/24 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 14:41*	*07/26/24 22:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/25/24 11:20	07/25/24 21:53	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:20	07/25/24 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*07/25/24 11:20*	*07/25/24 21:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 20:21	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-63 0.0'
Lab Sample ID: 885-8505-10
Date Collected: 07/21/24 10:40
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 14:41	07/26/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 14:41*	*07/26/24 23:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/26/24 23:05	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 14:41	07/26/24 23:05	1
Toluene	ND		0.048		mg/Kg		07/24/24 14:41	07/26/24 23:05	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 14:41	07/26/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 14:41*	*07/26/24 23:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/25/24 11:20	07/25/24 22:17	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:20	07/25/24 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/25/24 11:20*	*07/25/24 22:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 20:34	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-63 2.0'
Lab Sample ID: 885-8505-11
Date Collected: 07/21/24 10:45
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 14:41	07/26/24 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 14:41*	*07/26/24 23:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 14:41	07/26/24 23:29	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 14:41	07/26/24 23:29	1
Toluene	ND		0.050		mg/Kg		07/24/24 14:41	07/26/24 23:29	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 14:41	07/26/24 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 14:41*	*07/26/24 23:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		07/25/24 11:20	07/25/24 22:42	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:20	07/25/24 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/25/24 11:20*	*07/25/24 22:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 20:46	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-63 4.0'
Lab Sample ID: 885-8505-12
Date Collected: 07/21/24 10:50
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 14:41	07/26/24 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 14:41*	*07/26/24 23:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 14:41	07/26/24 23:52	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 14:41	07/26/24 23:52	1
Toluene	ND		0.050		mg/Kg		07/24/24 14:41	07/26/24 23:52	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 14:41	07/26/24 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 14:41*	*07/26/24 23:52*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/25/24 11:20	07/25/24 23:07	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:20	07/25/24 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/25/24 11:20*	*07/25/24 23:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 20:58	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-64 0.0'
Lab Sample ID: 885-8505-13
Date Collected: 07/21/24 11:00
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 14:41	07/27/24 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 14:41*	*07/27/24 00:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/27/24 00:39	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 14:41	07/27/24 00:39	1
Toluene	ND		0.048		mg/Kg		07/24/24 14:41	07/27/24 00:39	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 14:41	07/27/24 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 14:41*	*07/27/24 00:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.5		mg/Kg		07/25/24 11:20	07/25/24 23:31	1
Motor Oil Range Organics [C28-C40]	ND		42		mg/Kg		07/25/24 11:20	07/25/24 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/25/24 11:20*	*07/25/24 23:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 21:35	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-64 2.0'
Lab Sample ID: 885-8505-14
Date Collected: 07/21/24 11:05
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 14:41	07/27/24 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 14:41*	*07/27/24 01:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/27/24 01:02	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 01:02	1
Toluene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 01:02	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 14:41	07/27/24 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 14:41*	*07/27/24 01:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/25/24 11:20	07/25/24 23:56	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/25/24 11:20	07/25/24 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/25/24 11:20*	*07/25/24 23:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 21:48	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-64 4.0'
Lab Sample ID: 885-8505-15
Date Collected: 07/21/24 11:10
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 14:41	07/27/24 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 14:41*	*07/27/24 01:26*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 14:41	07/27/24 01:26	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 14:41	07/27/24 01:26	1
Toluene	ND		0.047		mg/Kg		07/24/24 14:41	07/27/24 01:26	1
Xylenes, Total	ND		0.094		mg/Kg		07/24/24 14:41	07/27/24 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 14:41*	*07/27/24 01:26*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/25/24 11:20	07/26/24 00:21	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/25/24 11:20	07/26/24 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/25/24 11:20*	*07/26/24 00:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 22:00	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-65 0.0'

Date Collected: 07/21/24 11:20
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-16

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 14:41	07/27/24 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 14:41*	*07/27/24 01:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 14:41	07/27/24 01:49	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 14:41	07/27/24 01:49	1
Toluene	ND		0.050		mg/Kg		07/24/24 14:41	07/27/24 01:49	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 14:41	07/27/24 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 14:41*	*07/27/24 01:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/25/24 11:20	07/26/24 00:46	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/25/24 11:20	07/26/24 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/25/24 11:20*	*07/26/24 00:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61**		60		mg/Kg		07/25/24 14:18	07/25/24 22:12	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-65 2.0'
Lab Sample ID: 885-8505-17
Date Collected: 07/21/24 11:25
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 14:41	07/27/24 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 14:41*	*07/27/24 02:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 14:41	07/27/24 02:13	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 02:13	1
Toluene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 02:13	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 14:41	07/27/24 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 14:41*	*07/27/24 02:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.5		mg/Kg		07/25/24 11:47	07/25/24 13:58	1
Motor Oil Range Organics [C28-C40]	ND		42		mg/Kg		07/25/24 11:47	07/25/24 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*121*		*62 - 134*	*07/25/24 11:47*	*07/25/24 13:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 22:25	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-65 4.0'
Lab Sample ID: 885-8505-18
Date Collected: 07/21/24 11:30
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 14:41	07/27/24 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 14:41*	*07/27/24 02:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 14:41	07/27/24 02:36	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 14:41	07/27/24 02:36	1
Toluene	ND		0.050		mg/Kg		07/24/24 14:41	07/27/24 02:36	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 14:41	07/27/24 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 14:41*	*07/27/24 02:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/25/24 11:47	07/25/24 14:11	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:47	07/25/24 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*	*07/25/24 11:47*	*07/25/24 14:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61		mg/Kg		07/25/24 14:18	07/25/24 22:37	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-66 0.0'
Lab Sample ID: 885-8505-19
Date Collected: 07/22/24 09:45
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/24/24 14:41	07/27/24 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 14:41*	*07/27/24 03:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 14:41	07/27/24 03:00	1
Ethylbenzene	ND		0.046		mg/Kg		07/24/24 14:41	07/27/24 03:00	1
Toluene	ND		0.046		mg/Kg		07/24/24 14:41	07/27/24 03:00	1
Xylenes, Total	ND		0.093		mg/Kg		07/24/24 14:41	07/27/24 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/24/24 14:41*	*07/27/24 03:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/25/24 11:47	07/25/24 14:24	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/25/24 11:47	07/25/24 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*238*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 14:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 22:49	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-66 2.0'
Lab Sample ID: 885-8505-20
Date Collected: 07/22/24 09:50
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 14:41	07/27/24 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 14:41*	*07/27/24 03:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/27/24 03:23	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 03:23	1
Toluene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 03:23	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 14:41	07/27/24 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/24/24 14:41*	*07/27/24 03:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 11:47	07/25/24 14:37	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 11:47	07/25/24 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*251*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 14:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 23:02	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-66 4.0'

Date Collected: 07/22/24 09:55
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-21

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 14:41	07/27/24 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 14:41*	*07/27/24 03:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 14:41	07/27/24 03:47	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 03:47	1
Toluene	ND		0.049		mg/Kg		07/24/24 14:41	07/27/24 03:47	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 14:41	07/27/24 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/24/24 14:41*	*07/27/24 03:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.6		mg/Kg		07/25/24 11:47	07/25/24 14:50	1
Motor Oil Range Organics [C28-C40]	ND		43		mg/Kg		07/25/24 11:47	07/25/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*260*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 14:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 23:14	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-67 0.0'
Lab Sample ID: 885-8505-22
Date Collected: 07/22/24 10:00
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 14:41	07/27/24 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 14:41*	*07/27/24 04:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 14:41	07/27/24 04:10	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 14:41	07/27/24 04:10	1
Toluene	ND		0.048		mg/Kg		07/24/24 14:41	07/27/24 04:10	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 14:41	07/27/24 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 14:41*	*07/27/24 04:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.5		mg/Kg		07/25/24 11:47	07/25/24 15:03	1
Motor Oil Range Organics [C28-C40]	ND		43		mg/Kg		07/25/24 11:47	07/25/24 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*250*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 15:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/25/24 23:26	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-67 2.0'
Lab Sample ID: 885-8505-23
Date Collected: 07/22/24 10:05
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 16:20	07/27/24 06:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 16:20*	*07/27/24 06:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 16:20	07/27/24 06:08	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 16:20	07/27/24 06:08	1
Toluene	ND		0.050		mg/Kg		07/24/24 16:20	07/27/24 06:08	1
Xylenes, Total	ND		0.099		mg/Kg		07/24/24 16:20	07/27/24 06:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 16:20*	*07/27/24 06:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/25/24 11:47	07/25/24 15:16	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:47	07/25/24 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*258*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 15:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/26/24 00:04	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-67 4.0'
Lab Sample ID: 885-8505-24
Date Collected: 07/22/24 10:10
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 16:20	07/27/24 07:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 16:20*	*07/27/24 07:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 16:20	07/27/24 07:18	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 07:18	1
Toluene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 07:18	1
Xylenes, Total	ND		0.094		mg/Kg		07/24/24 16:20	07/27/24 07:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 16:20*	*07/27/24 07:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/25/24 11:47	07/25/24 15:30	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:47	07/25/24 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*253*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 15:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 14:18	07/26/24 00:16	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-68 0.0'
Lab Sample ID: 885-8505-25
Date Collected: 07/22/24 10:15
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 16:20	07/27/24 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 16:20*	*07/27/24 08:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 16:20	07/27/24 08:28	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 08:28	1
Toluene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 08:28	1
Xylenes, Total	ND		0.094		mg/Kg		07/24/24 16:20	07/27/24 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 16:20*	*07/27/24 08:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/25/24 11:47	07/25/24 15:44	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/25/24 11:47	07/25/24 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*437*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 15:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 00:53	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-68 2.0'
Lab Sample ID: 885-8505-26
Date Collected: 07/22/24 10:20
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/24/24 16:20	07/27/24 09:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 16:20*	*07/27/24 09:15*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 16:20	07/27/24 09:15	1
Ethylbenzene	ND		0.046		mg/Kg		07/24/24 16:20	07/27/24 09:15	1
Toluene	ND		0.046		mg/Kg		07/24/24 16:20	07/27/24 09:15	1
Xylenes, Total	ND		0.092		mg/Kg		07/24/24 16:20	07/27/24 09:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 16:20*	*07/27/24 09:15*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 11:47	07/25/24 15:57	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 11:47	07/25/24 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*438*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 15:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 01:30	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-68 4.0'
Lab Sample ID: 885-8505-27
Date Collected: 07/22/24 10:25
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 16:20	07/27/24 09:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*07/24/24 16:20*	*07/27/24 09:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 16:20	07/27/24 09:39	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 16:20	07/27/24 09:39	1
Toluene	ND		0.049		mg/Kg		07/24/24 16:20	07/27/24 09:39	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 16:20	07/27/24 09:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*48 - 145*	*07/24/24 16:20*	*07/27/24 09:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/25/24 11:47	07/25/24 16:25	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:47	07/25/24 16:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*446*	*S1+*	*62 - 134*	*07/25/24 11:47*	*07/25/24 16:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**75**		60		mg/Kg		07/25/24 17:22	07/26/24 01:42	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-69 0.0'
Lab Sample ID: 885-8505-28
Date Collected: 07/22/24 10:35
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 16:20	07/27/24 10:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 16:20*	*07/27/24 10:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 16:20	07/27/24 10:02	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 10:02	1
Toluene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 10:02	1
Xylenes, Total	ND		0.094		mg/Kg		07/24/24 16:20	07/27/24 10:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 16:20*	*07/27/24 10:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 11:47	07/25/24 16:38	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 11:47	07/25/24 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*07/25/24 11:47*	*07/25/24 16:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 01:55	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-69 2.0'
Lab Sample ID: 885-8505-29
Date Collected: 07/22/24 10:40
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/24/24 16:20	07/27/24 10:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*07/24/24 16:20*	*07/27/24 10:26*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 16:20	07/27/24 10:26	1
Ethylbenzene	ND		0.046		mg/Kg		07/24/24 16:20	07/27/24 10:26	1
Toluene	ND		0.046		mg/Kg		07/24/24 16:20	07/27/24 10:26	1
Xylenes, Total	ND		0.093		mg/Kg		07/24/24 16:20	07/27/24 10:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/24/24 16:20*	*07/27/24 10:26*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		07/25/24 11:47	07/25/24 16:52	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/25/24 11:47	07/25/24 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*07/25/24 11:47*	*07/25/24 16:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 02:32	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-69 40'
Lab Sample ID: 885-8505-30
Date Collected: 07/22/24 10:45
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 16:20	07/27/24 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 16:20*	*07/27/24 10:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 16:20	07/27/24 10:49	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 16:20	07/27/24 10:49	1
Toluene	ND		0.048		mg/Kg		07/24/24 16:20	07/27/24 10:49	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 16:20	07/27/24 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 16:20*	*07/27/24 10:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/25/24 11:47	07/25/24 17:05	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:47	07/25/24 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/25/24 11:47*	*07/25/24 17:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 02:44	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-70 0.0'
Lab Sample ID: 885-8505-31
Date Collected: 07/22/24 10:55
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 16:20	07/27/24 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 16:20*	*07/27/24 11:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 16:20	07/27/24 11:13	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 16:20	07/27/24 11:13	1
Toluene	ND		0.049		mg/Kg		07/24/24 16:20	07/27/24 11:13	1
Xylenes, Total	ND		0.097		mg/Kg		07/24/24 16:20	07/27/24 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 16:20*	*07/27/24 11:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/25/24 11:47	07/25/24 17:19	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/25/24 11:47	07/25/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/25/24 11:47*	*07/25/24 17:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 02:56	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-70 2.0'

Date Collected: 07/22/24 11:00
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-32

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 16:20	07/27/24 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/24/24 16:20*	*07/27/24 11:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 16:20	07/27/24 11:36	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 11:36	1
Toluene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 11:36	1
Xylenes, Total	ND		0.095		mg/Kg		07/24/24 16:20	07/27/24 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/24/24 16:20*	*07/27/24 11:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		07/25/24 11:47	07/25/24 17:32	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/25/24 11:47	07/25/24 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*07/25/24 11:47*	*07/25/24 17:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 03:09	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-70 4.0'

Date Collected: 07/22/24 11:05
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-33

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 16:20	07/27/24 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 16:20*	*07/27/24 12:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 16:20	07/27/24 12:23	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 12:23	1
Toluene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 12:23	1
Xylenes, Total	ND		0.093		mg/Kg		07/24/24 16:20	07/27/24 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 16:20*	*07/27/24 12:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/25/24 11:47	07/25/24 17:46	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/25/24 11:47	07/25/24 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*07/25/24 11:47*	*07/25/24 17:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 03:21	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-71 0.0'

Date Collected: 07/22/24 11:15
Date Received: 07/24/24 07:15

Lab Sample ID: 885-8505-34

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/24/24 16:20	07/27/24 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/24/24 16:20*	*07/27/24 12:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 16:20	07/27/24 12:47	1
Ethylbenzene	ND		0.049		mg/Kg		07/24/24 16:20	07/27/24 12:47	1
Toluene	ND		0.049		mg/Kg		07/24/24 16:20	07/27/24 12:47	1
Xylenes, Total	ND		0.098		mg/Kg		07/24/24 16:20	07/27/24 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/24/24 16:20*	*07/27/24 12:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/25/24 11:47	07/25/24 18:00	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/25/24 11:47	07/25/24 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*07/25/24 11:47*	*07/25/24 18:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		07/25/24 17:22	07/26/24 03:34	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-71 2.0'
Lab Sample ID: 885-8505-35
Date Collected: 07/22/24 11:20
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/24/24 16:20	07/27/24 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/24/24 16:20*	*07/27/24 13:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/24/24 16:20	07/27/24 13:10	1
Ethylbenzene	ND		0.048		mg/Kg		07/24/24 16:20	07/27/24 13:10	1
Toluene	ND		0.048		mg/Kg		07/24/24 16:20	07/27/24 13:10	1
Xylenes, Total	ND		0.096		mg/Kg		07/24/24 16:20	07/27/24 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 16:20*	*07/27/24 13:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/25/24 11:47	07/25/24 18:13	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/25/24 11:47	07/25/24 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*07/25/24 11:47*	*07/25/24 18:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 03:46	20

Client Sample Results

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-71 4.0'
Lab Sample ID: 885-8505-36
Date Collected: 07/22/24 11:25
Matrix: Solid
Date Received: 07/24/24 07:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/24/24 16:20	07/27/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 16:20*	*07/27/24 13:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/24/24 16:20	07/27/24 13:33	1
Ethylbenzene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 13:33	1
Toluene	ND		0.047		mg/Kg		07/24/24 16:20	07/27/24 13:33	1
Xylenes, Total	ND		0.094		mg/Kg		07/24/24 16:20	07/27/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 16:20*	*07/27/24 13:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/25/24 11:47	07/25/24 18:27	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/25/24 11:47	07/25/24 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*07/25/24 11:47*	*07/25/24 18:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/25/24 17:22	07/26/24 03:58	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-9063/1-A
Matrix: Solid
Analysis Batch: 9271

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 12:27	07/25/24 23:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*35 - 166*	*07/24/24 12:27*	*07/25/24 23:31*	*1*

Lab Sample ID: LCS 885-9063/2-A
Matrix: Solid
Analysis Batch: 9271

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9063

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	20.1		mg/Kg		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*195*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-9079/1-A
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9079

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 14:41	07/26/24 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/24/24 14:41*	*07/26/24 17:59*	*1*

Lab Sample ID: LCS 885-9079/2-A
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9079

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	23.2		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*35 - 166*

Lab Sample ID: 885-8505-3 MS
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: BH24-60 4.0'
Prep Type: Total/NA
Prep Batch: 9079

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.1	21.5		mg/Kg		89	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*215*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-8505-3 MSD
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: BH24-60 4.0'
Prep Type: Total/NA
Prep Batch: 9079

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.2	21.7		mg/Kg		90	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-9093/1-A
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9093

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/24/24 16:20	07/27/24 05:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*07/24/24 16:20*	*07/27/24 05:44*	*1*

Lab Sample ID: LCS 885-9093/2-A
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9093

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	20.9		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*197*	*S1+*	*35 - 166*

Lab Sample ID: 885-8505-23 MS
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: BH24-67 2.0'
Prep Type: Total/NA
Prep Batch: 9093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.9	21.5		mg/Kg		86	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*199*	*S1+*	*35 - 166*

Lab Sample ID: 885-8505-23 MSD
Matrix: Solid
Analysis Batch: 9284

Client Sample ID: BH24-67 2.0'
Prep Type: Total/NA
Prep Batch: 9093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.8	21.0		mg/Kg		85	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*205*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-9063/1-A
Matrix: Solid
Analysis Batch: 9272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 12:27	07/25/24 23:31	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 12:27	07/25/24 23:31	1
Toluene	ND		0.050		mg/Kg		07/24/24 12:27	07/25/24 23:31	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 12:27	07/25/24 23:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/24/24 12:27*	*07/25/24 23:31*	*1*

Lab Sample ID: LCS 885-9063/3-A
Matrix: Solid
Analysis Batch: 9272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.911		mg/Kg		91	70 - 130
Ethylbenzene	1.00	0.900		mg/Kg		90	70 - 130
m,p-Xylene	2.00	1.79		mg/Kg		89	70 - 130
o-Xylene	1.00	0.897		mg/Kg		90	70 - 130
Toluene	1.00	0.895		mg/Kg		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*

Lab Sample ID: MB 885-9079/1-A
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9079

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 14:41	07/26/24 17:59	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 14:41	07/26/24 17:59	1
Toluene	ND		0.050		mg/Kg		07/24/24 14:41	07/26/24 17:59	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 14:41	07/26/24 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/24/24 14:41*	*07/26/24 17:59*	*1*

Lab Sample ID: LCS 885-9079/3-A
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.910		mg/Kg		91	70 - 130
Ethylbenzene	1.00	0.864		mg/Kg		86	70 - 130
m,p-Xylene	2.00	1.79		mg/Kg		89	70 - 130
o-Xylene	1.00	0.867		mg/Kg		87	70 - 130
Toluene	1.00	0.866		mg/Kg		87	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-9079/3-A
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9079

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		48 - 145

Lab Sample ID: 885-8505-4 MS
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: BH24-61 0.0'
Prep Type: Total/NA
Prep Batch: 9079

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.943	0.893		mg/Kg		95	70 - 130
Ethylbenzene	ND		0.943	0.840		mg/Kg		89	70 - 130
m,p-Xylene	ND		1.89	1.68		mg/Kg		88	70 - 130
o-Xylene	ND		0.943	0.831		mg/Kg		88	70 - 130
Toluene	ND		0.943	0.842		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		48 - 145

Lab Sample ID: 885-8505-4 MSD
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: BH24-61 0.0'
Prep Type: Total/NA
Prep Batch: 9079

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.943	0.879		mg/Kg		93	70 - 130	2	20
Ethylbenzene	ND		0.943	0.821		mg/Kg		87	70 - 130	2	20
m,p-Xylene	ND		1.89	1.67		mg/Kg		87	70 - 130	1	20
o-Xylene	ND		0.943	0.821		mg/Kg		87	70 - 130	1	20
Toluene	ND		0.943	0.830		mg/Kg		87	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		48 - 145

Lab Sample ID: MB 885-9093/1-A
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9093

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/24/24 16:20	07/27/24 05:44	1
Ethylbenzene	ND		0.050		mg/Kg		07/24/24 16:20	07/27/24 05:44	1
Toluene	ND		0.050		mg/Kg		07/24/24 16:20	07/27/24 05:44	1
Xylenes, Total	ND		0.10		mg/Kg		07/24/24 16:20	07/27/24 05:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		48 - 145	07/24/24 16:20	07/27/24 05:44	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-9093/3-A
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9093

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.871		mg/Kg		87	70 - 130		
Ethylbenzene			1.00	0.801		mg/Kg		80	70 - 130		
m,p-Xylene			2.00	1.62		mg/Kg		81	70 - 130		
o-Xylene			1.00	0.788		mg/Kg		79	70 - 130		
Toluene			1.00	0.814		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*

Lab Sample ID: 885-8505-24 MS
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: BH24-67 4.0'
Prep Type: Total/NA
Prep Batch: 9093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.942	0.838		mg/Kg		89	70 - 130		
Ethylbenzene	ND		0.942	0.773		mg/Kg		82	70 - 130		
m,p-Xylene	ND		1.88	1.55		mg/Kg		81	70 - 130		
o-Xylene	ND		0.942	0.763		mg/Kg		81	70 - 130		
Toluene	ND		0.942	0.782		mg/Kg		82	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*

Lab Sample ID: 885-8505-24 MSD
Matrix: Solid
Analysis Batch: 9285

Client Sample ID: BH24-67 4.0'
Prep Type: Total/NA
Prep Batch: 9093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.938	0.854		mg/Kg		91	70 - 130	2	20
Ethylbenzene	ND		0.938	0.804		mg/Kg		86	70 - 130	4	20
m,p-Xylene	ND		1.88	1.60		mg/Kg		84	70 - 130	4	20
o-Xylene	ND		0.938	0.788		mg/Kg		84	70 - 130	3	20
Toluene	ND		0.938	0.803		mg/Kg		84	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-9157/1-A
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9157

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 11:20	07/25/24 15:44	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 11:20	07/25/24 15:44	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-9157/1-A
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9157

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	153	S1+	62 - 134	07/25/24 11:20	07/25/24 15:44	1

Lab Sample ID: LCS 885-9157/2-A
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9157

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	57.2		mg/Kg		114	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	99		62 - 134

Lab Sample ID: 885-8505-16 MS
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: BH24-65 0.0'
Prep Type: Total/NA
Prep Batch: 9157

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		47.2	54.2		mg/Kg		115	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	99		62 - 134

Lab Sample ID: 885-8505-16 MSD
Matrix: Solid
Analysis Batch: 9203

Client Sample ID: BH24-65 0.0'
Prep Type: Total/NA
Prep Batch: 9157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.7	52.5		mg/Kg		106	44 - 136	3	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	93		62 - 134

Lab Sample ID: MB 885-9164/1-A
Matrix: Solid
Analysis Batch: 9201

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9164

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 11:47	07/25/24 13:33	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 11:47	07/25/24 13:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	116		62 - 134	07/25/24 11:47	07/25/24 13:33	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-9164/2-A
Matrix: Solid
Analysis Batch: 9201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9164

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	44.7		mg/Kg		89	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Lab Sample ID: 885-8505-36 MS
Matrix: Solid
Analysis Batch: 9201

Client Sample ID: BH24-71 4.0'
Prep Type: Total/NA
Prep Batch: 9164

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		49.8	45.9		mg/Kg		92	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Lab Sample ID: 885-8505-36 MSD
Matrix: Solid
Analysis Batch: 9201

Client Sample ID: BH24-71 4.0'
Prep Type: Total/NA
Prep Batch: 9164

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.3	38.9		mg/Kg		79	44 - 136	17	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9153/1-A
Matrix: Solid
Analysis Batch: 9200

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9153

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/25/24 10:50	07/25/24 11:42	1

Lab Sample ID: LCS 885-9153/2-A
Matrix: Solid
Analysis Batch: 9200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.6		mg/Kg		95	90 - 110		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-9198/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9198**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/25/24 14:18	07/25/24 17:53	1

Lab Sample ID: LCS 885-9198/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9198**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.8		mg/Kg		96	90 - 110		

Lab Sample ID: 885-8505-5 MS — **Client Sample ID: BH24-61 2.0'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		29.8	ND		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-8505-5 MSD — **Client Sample ID: BH24-61 2.0'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		30.1	ND		mg/Kg		NC	50 - 150	NC	20

Lab Sample ID: 885-8505-6 MS — **Client Sample ID: BH24-61 4.0'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		30.0	ND		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-8505-6 MSD — **Client Sample ID: BH24-61 4.0'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		30.1	ND		mg/Kg		NC	50 - 150	NC	20

Lab Sample ID: MB 885-9218/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9218**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		07/25/24 17:22	07/26/24 00:28	1

Lab Sample ID: LCS 885-9218/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 9200 — **Prep Batch: 9218**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.4		mg/Kg		96	90 - 110		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 885-8505-25 MS
Matrix: Solid
Analysis Batch: 9200

Client Sample ID: BH24-68 0.0'
Prep Type: Total/NA
Prep Batch: 9218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		30.1	ND		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-8505-25 MSD
Matrix: Solid
Analysis Batch: 9200

Client Sample ID: BH24-68 0.0'
Prep Type: Total/NA
Prep Batch: 9218

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		29.9	ND		mg/Kg		NC	50 - 150	NC	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

GC VOA

Prep Batch: 9063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-1	BH24-60 0.0'	Total/NA	Solid	5030C	
885-8505-2	BH24-60 2.0'	Total/NA	Solid	5030C	
MB 885-9063/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9063/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9063/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 9079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-3	BH24-60 4.0'	Total/NA	Solid	5030C	
885-8505-4	BH24-61 0.0'	Total/NA	Solid	5030C	
885-8505-5	BH24-61 2.0'	Total/NA	Solid	5030C	
885-8505-6	BH24-61 4.0'	Total/NA	Solid	5030C	
885-8505-7	BH24-62 0.0'	Total/NA	Solid	5030C	
885-8505-8	BH24-62 2.0'	Total/NA	Solid	5030C	
885-8505-9	BH24-62 4.0'	Total/NA	Solid	5030C	
885-8505-10	BH24-63 0.0'	Total/NA	Solid	5030C	
885-8505-11	BH24-63 2.0'	Total/NA	Solid	5030C	
885-8505-12	BH24-63 4.0'	Total/NA	Solid	5030C	
885-8505-13	BH24-64 0.0'	Total/NA	Solid	5030C	
885-8505-14	BH24-64 2.0'	Total/NA	Solid	5030C	
885-8505-15	BH24-64 4.0'	Total/NA	Solid	5030C	
885-8505-16	BH24-65 0.0'	Total/NA	Solid	5030C	
885-8505-17	BH24-65 2.0'	Total/NA	Solid	5030C	
885-8505-18	BH24-65 4.0'	Total/NA	Solid	5030C	
885-8505-19	BH24-66 0.0'	Total/NA	Solid	5030C	
885-8505-20	BH24-66 2.0'	Total/NA	Solid	5030C	
885-8505-21	BH24-66 4.0'	Total/NA	Solid	5030C	
885-8505-22	BH24-67 0.0'	Total/NA	Solid	5030C	
MB 885-9079/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9079/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9079/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8505-3 MS	BH24-60 4.0'	Total/NA	Solid	5030C	
885-8505-3 MSD	BH24-60 4.0'	Total/NA	Solid	5030C	
885-8505-4 MS	BH24-61 0.0'	Total/NA	Solid	5030C	
885-8505-4 MSD	BH24-61 0.0'	Total/NA	Solid	5030C	

Prep Batch: 9093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-23	BH24-67 2.0'	Total/NA	Solid	5030C	
885-8505-24	BH24-67 4.0'	Total/NA	Solid	5030C	
885-8505-25	BH24-68 0.0'	Total/NA	Solid	5030C	
885-8505-26	BH24-68 2.0'	Total/NA	Solid	5030C	
885-8505-27	BH24-68 4.0'	Total/NA	Solid	5030C	
885-8505-28	BH24-69 0.0'	Total/NA	Solid	5030C	
885-8505-29	BH24-69 2.0'	Total/NA	Solid	5030C	
885-8505-30	BH24-69 40'	Total/NA	Solid	5030C	
885-8505-31	BH24-70 0.0'	Total/NA	Solid	5030C	
885-8505-32	BH24-70 2.0'	Total/NA	Solid	5030C	
885-8505-33	BH24-70 4.0'	Total/NA	Solid	5030C	
885-8505-34	BH24-71 0.0'	Total/NA	Solid	5030C	
885-8505-35	BH24-71 2.0'	Total/NA	Solid	5030C	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

GC VOA (Continued)

Prep Batch: 9093 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-36	BH24-71 4.0'	Total/NA	Solid	5030C	
MB 885-9093/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9093/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9093/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8505-23 MS	BH24-67 2.0'	Total/NA	Solid	5030C	
885-8505-23 MSD	BH24-67 2.0'	Total/NA	Solid	5030C	
885-8505-24 MS	BH24-67 4.0'	Total/NA	Solid	5030C	
885-8505-24 MSD	BH24-67 4.0'	Total/NA	Solid	5030C	

Analysis Batch: 9271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-1	BH24-60 0.0'	Total/NA	Solid	8015M/D	9063
885-8505-2	BH24-60 2.0'	Total/NA	Solid	8015M/D	9063
MB 885-9063/1-A	Method Blank	Total/NA	Solid	8015M/D	9063
LCS 885-9063/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9063

Analysis Batch: 9272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-1	BH24-60 0.0'	Total/NA	Solid	8021B	9063
885-8505-2	BH24-60 2.0'	Total/NA	Solid	8021B	9063
MB 885-9063/1-A	Method Blank	Total/NA	Solid	8021B	9063
LCS 885-9063/3-A	Lab Control Sample	Total/NA	Solid	8021B	9063

Analysis Batch: 9284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-3	BH24-60 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-4	BH24-61 0.0'	Total/NA	Solid	8015M/D	9079
885-8505-5	BH24-61 2.0'	Total/NA	Solid	8015M/D	9079
885-8505-6	BH24-61 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-7	BH24-62 0.0'	Total/NA	Solid	8015M/D	9079
885-8505-8	BH24-62 2.0'	Total/NA	Solid	8015M/D	9079
885-8505-9	BH24-62 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-10	BH24-63 0.0'	Total/NA	Solid	8015M/D	9079
885-8505-11	BH24-63 2.0'	Total/NA	Solid	8015M/D	9079
885-8505-12	BH24-63 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-13	BH24-64 0.0'	Total/NA	Solid	8015M/D	9079
885-8505-14	BH24-64 2.0'	Total/NA	Solid	8015M/D	9079
885-8505-15	BH24-64 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-16	BH24-65 0.0'	Total/NA	Solid	8015M/D	9079
885-8505-17	BH24-65 2.0'	Total/NA	Solid	8015M/D	9079
885-8505-18	BH24-65 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-19	BH24-66 0.0'	Total/NA	Solid	8015M/D	9079
885-8505-20	BH24-66 2.0'	Total/NA	Solid	8015M/D	9079
885-8505-21	BH24-66 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-22	BH24-67 0.0'	Total/NA	Solid	8015M/D	9079
885-8505-23	BH24-67 2.0'	Total/NA	Solid	8015M/D	9093
885-8505-24	BH24-67 4.0'	Total/NA	Solid	8015M/D	9093
885-8505-25	BH24-68 0.0'	Total/NA	Solid	8015M/D	9093
885-8505-26	BH24-68 2.0'	Total/NA	Solid	8015M/D	9093
885-8505-27	BH24-68 4.0'	Total/NA	Solid	8015M/D	9093
885-8505-28	BH24-69 0.0'	Total/NA	Solid	8015M/D	9093

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

GC VOA (Continued)

Analysis Batch: 9284 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-29	BH24-69 2.0'	Total/NA	Solid	8015M/D	9093
885-8505-30	BH24-69 40'	Total/NA	Solid	8015M/D	9093
885-8505-31	BH24-70 0.0'	Total/NA	Solid	8015M/D	9093
885-8505-32	BH24-70 2.0'	Total/NA	Solid	8015M/D	9093
885-8505-33	BH24-70 4.0'	Total/NA	Solid	8015M/D	9093
885-8505-34	BH24-71 0.0'	Total/NA	Solid	8015M/D	9093
885-8505-35	BH24-71 2.0'	Total/NA	Solid	8015M/D	9093
885-8505-36	BH24-71 4.0'	Total/NA	Solid	8015M/D	9093
MB 885-9079/1-A	Method Blank	Total/NA	Solid	8015M/D	9079
MB 885-9093/1-A	Method Blank	Total/NA	Solid	8015M/D	9093
LCS 885-9079/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9079
LCS 885-9093/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9093
885-8505-3 MS	BH24-60 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-3 MSD	BH24-60 4.0'	Total/NA	Solid	8015M/D	9079
885-8505-23 MS	BH24-67 2.0'	Total/NA	Solid	8015M/D	9093
885-8505-23 MSD	BH24-67 2.0'	Total/NA	Solid	8015M/D	9093

Analysis Batch: 9285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-3	BH24-60 4.0'	Total/NA	Solid	8021B	9079
885-8505-4	BH24-61 0.0'	Total/NA	Solid	8021B	9079
885-8505-5	BH24-61 2.0'	Total/NA	Solid	8021B	9079
885-8505-6	BH24-61 4.0'	Total/NA	Solid	8021B	9079
885-8505-7	BH24-62 0.0'	Total/NA	Solid	8021B	9079
885-8505-8	BH24-62 2.0'	Total/NA	Solid	8021B	9079
885-8505-9	BH24-62 4.0'	Total/NA	Solid	8021B	9079
885-8505-10	BH24-63 0.0'	Total/NA	Solid	8021B	9079
885-8505-11	BH24-63 2.0'	Total/NA	Solid	8021B	9079
885-8505-12	BH24-63 4.0'	Total/NA	Solid	8021B	9079
885-8505-13	BH24-64 0.0'	Total/NA	Solid	8021B	9079
885-8505-14	BH24-64 2.0'	Total/NA	Solid	8021B	9079
885-8505-15	BH24-64 4.0'	Total/NA	Solid	8021B	9079
885-8505-16	BH24-65 0.0'	Total/NA	Solid	8021B	9079
885-8505-17	BH24-65 2.0'	Total/NA	Solid	8021B	9079
885-8505-18	BH24-65 4.0'	Total/NA	Solid	8021B	9079
885-8505-19	BH24-66 0.0'	Total/NA	Solid	8021B	9079
885-8505-20	BH24-66 2.0'	Total/NA	Solid	8021B	9079
885-8505-21	BH24-66 4.0'	Total/NA	Solid	8021B	9079
885-8505-22	BH24-67 0.0'	Total/NA	Solid	8021B	9079
885-8505-23	BH24-67 2.0'	Total/NA	Solid	8021B	9093
885-8505-24	BH24-67 4.0'	Total/NA	Solid	8021B	9093
885-8505-25	BH24-68 0.0'	Total/NA	Solid	8021B	9093
885-8505-26	BH24-68 2.0'	Total/NA	Solid	8021B	9093
885-8505-27	BH24-68 4.0'	Total/NA	Solid	8021B	9093
885-8505-28	BH24-69 0.0'	Total/NA	Solid	8021B	9093
885-8505-29	BH24-69 2.0'	Total/NA	Solid	8021B	9093
885-8505-30	BH24-69 40'	Total/NA	Solid	8021B	9093
885-8505-31	BH24-70 0.0'	Total/NA	Solid	8021B	9093
885-8505-32	BH24-70 2.0'	Total/NA	Solid	8021B	9093
885-8505-33	BH24-70 4.0'	Total/NA	Solid	8021B	9093
885-8505-34	BH24-71 0.0'	Total/NA	Solid	8021B	9093

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

GC VOA (Continued)

Analysis Batch: 9285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-35	BH24-71 2.0'	Total/NA	Solid	8021B	9093
885-8505-36	BH24-71 4.0'	Total/NA	Solid	8021B	9093
MB 885-9079/1-A	Method Blank	Total/NA	Solid	8021B	9079
MB 885-9093/1-A	Method Blank	Total/NA	Solid	8021B	9093
LCS 885-9079/3-A	Lab Control Sample	Total/NA	Solid	8021B	9079
LCS 885-9093/3-A	Lab Control Sample	Total/NA	Solid	8021B	9093
885-8505-4 MS	BH24-61 0.0'	Total/NA	Solid	8021B	9079
885-8505-4 MSD	BH24-61 0.0'	Total/NA	Solid	8021B	9079
885-8505-24 MS	BH24-67 4.0'	Total/NA	Solid	8021B	9093
885-8505-24 MSD	BH24-67 4.0'	Total/NA	Solid	8021B	9093

GC Semi VOA

Prep Batch: 9157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-1	BH24-60 0.0'	Total/NA	Solid	SHAKE	
885-8505-2	BH24-60 2.0'	Total/NA	Solid	SHAKE	
885-8505-3	BH24-60 4.0'	Total/NA	Solid	SHAKE	
885-8505-4	BH24-61 0.0'	Total/NA	Solid	SHAKE	
885-8505-5	BH24-61 2.0'	Total/NA	Solid	SHAKE	
885-8505-6	BH24-61 4.0'	Total/NA	Solid	SHAKE	
885-8505-7	BH24-62 0.0'	Total/NA	Solid	SHAKE	
885-8505-8	BH24-62 2.0'	Total/NA	Solid	SHAKE	
885-8505-9	BH24-62 4.0'	Total/NA	Solid	SHAKE	
885-8505-10	BH24-63 0.0'	Total/NA	Solid	SHAKE	
885-8505-11	BH24-63 2.0'	Total/NA	Solid	SHAKE	
885-8505-12	BH24-63 4.0'	Total/NA	Solid	SHAKE	
885-8505-13	BH24-64 0.0'	Total/NA	Solid	SHAKE	
885-8505-14	BH24-64 2.0'	Total/NA	Solid	SHAKE	
885-8505-15	BH24-64 4.0'	Total/NA	Solid	SHAKE	
885-8505-16	BH24-65 0.0'	Total/NA	Solid	SHAKE	
MB 885-9157/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9157/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8505-16 MS	BH24-65 0.0'	Total/NA	Solid	SHAKE	
885-8505-16 MSD	BH24-65 0.0'	Total/NA	Solid	SHAKE	

Prep Batch: 9164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-17	BH24-65 2.0'	Total/NA	Solid	SHAKE	
885-8505-18	BH24-65 4.0'	Total/NA	Solid	SHAKE	
885-8505-19	BH24-66 0.0'	Total/NA	Solid	SHAKE	
885-8505-20	BH24-66 2.0'	Total/NA	Solid	SHAKE	
885-8505-21	BH24-66 4.0'	Total/NA	Solid	SHAKE	
885-8505-22	BH24-67 0.0'	Total/NA	Solid	SHAKE	
885-8505-23	BH24-67 2.0'	Total/NA	Solid	SHAKE	
885-8505-24	BH24-67 4.0'	Total/NA	Solid	SHAKE	
885-8505-25	BH24-68 0.0'	Total/NA	Solid	SHAKE	
885-8505-26	BH24-68 2.0'	Total/NA	Solid	SHAKE	
885-8505-27	BH24-68 4.0'	Total/NA	Solid	SHAKE	
885-8505-28	BH24-69 0.0'	Total/NA	Solid	SHAKE	
885-8505-29	BH24-69 2.0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

GC Semi VOA (Continued)

Prep Batch: 9164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-30	BH24-69 40'	Total/NA	Solid	SHAKE	
885-8505-31	BH24-70 0.0'	Total/NA	Solid	SHAKE	
885-8505-32	BH24-70 2.0'	Total/NA	Solid	SHAKE	
885-8505-33	BH24-70 4.0'	Total/NA	Solid	SHAKE	
885-8505-34	BH24-71 0.0'	Total/NA	Solid	SHAKE	
885-8505-35	BH24-71 2.0'	Total/NA	Solid	SHAKE	
885-8505-36	BH24-71 4.0'	Total/NA	Solid	SHAKE	
MB 885-9164/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9164/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8505-36 MS	BH24-71 4.0'	Total/NA	Solid	SHAKE	
885-8505-36 MSD	BH24-71 4.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 9201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-17	BH24-65 2.0'	Total/NA	Solid	8015M/D	9164
885-8505-18	BH24-65 4.0'	Total/NA	Solid	8015M/D	9164
885-8505-19	BH24-66 0.0'	Total/NA	Solid	8015M/D	9164
885-8505-20	BH24-66 2.0'	Total/NA	Solid	8015M/D	9164
885-8505-21	BH24-66 4.0'	Total/NA	Solid	8015M/D	9164
885-8505-22	BH24-67 0.0'	Total/NA	Solid	8015M/D	9164
885-8505-23	BH24-67 2.0'	Total/NA	Solid	8015M/D	9164
885-8505-24	BH24-67 4.0'	Total/NA	Solid	8015M/D	9164
885-8505-25	BH24-68 0.0'	Total/NA	Solid	8015M/D	9164
885-8505-26	BH24-68 2.0'	Total/NA	Solid	8015M/D	9164
885-8505-27	BH24-68 4.0'	Total/NA	Solid	8015M/D	9164
885-8505-28	BH24-69 0.0'	Total/NA	Solid	8015M/D	9164
885-8505-29	BH24-69 2.0'	Total/NA	Solid	8015M/D	9164
885-8505-30	BH24-69 40'	Total/NA	Solid	8015M/D	9164
885-8505-31	BH24-70 0.0'	Total/NA	Solid	8015M/D	9164
885-8505-32	BH24-70 2.0'	Total/NA	Solid	8015M/D	9164
885-8505-33	BH24-70 4.0'	Total/NA	Solid	8015M/D	9164
885-8505-34	BH24-71 0.0'	Total/NA	Solid	8015M/D	9164
885-8505-35	BH24-71 2.0'	Total/NA	Solid	8015M/D	9164
885-8505-36	BH24-71 4.0'	Total/NA	Solid	8015M/D	9164
MB 885-9164/1-A	Method Blank	Total/NA	Solid	8015M/D	9164
LCS 885-9164/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9164
885-8505-36 MS	BH24-71 4.0'	Total/NA	Solid	8015M/D	9164
885-8505-36 MSD	BH24-71 4.0'	Total/NA	Solid	8015M/D	9164

Analysis Batch: 9203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-1	BH24-60 0.0'	Total/NA	Solid	8015M/D	9157
885-8505-2	BH24-60 2.0'	Total/NA	Solid	8015M/D	9157
885-8505-3	BH24-60 4.0'	Total/NA	Solid	8015M/D	9157
885-8505-4	BH24-61 0.0'	Total/NA	Solid	8015M/D	9157
885-8505-5	BH24-61 2.0'	Total/NA	Solid	8015M/D	9157
885-8505-6	BH24-61 4.0'	Total/NA	Solid	8015M/D	9157
885-8505-7	BH24-62 0.0'	Total/NA	Solid	8015M/D	9157
885-8505-8	BH24-62 2.0'	Total/NA	Solid	8015M/D	9157
885-8505-9	BH24-62 4.0'	Total/NA	Solid	8015M/D	9157
885-8505-10	BH24-63 0.0'	Total/NA	Solid	8015M/D	9157

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

GC Semi VOA (Continued)

Analysis Batch: 9203 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-11	BH24-63 2.0'	Total/NA	Solid	8015M/D	9157
885-8505-12	BH24-63 4.0'	Total/NA	Solid	8015M/D	9157
885-8505-13	BH24-64 0.0'	Total/NA	Solid	8015M/D	9157
885-8505-14	BH24-64 2.0'	Total/NA	Solid	8015M/D	9157
885-8505-15	BH24-64 4.0'	Total/NA	Solid	8015M/D	9157
885-8505-16	BH24-65 0.0'	Total/NA	Solid	8015M/D	9157
MB 885-9157/1-A	Method Blank	Total/NA	Solid	8015M/D	9157
LCS 885-9157/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9157
885-8505-16 MS	BH24-65 0.0'	Total/NA	Solid	8015M/D	9157
885-8505-16 MSD	BH24-65 0.0'	Total/NA	Solid	8015M/D	9157

HPLC/IC

Prep Batch: 9153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-1	BH24-60 0.0'	Total/NA	Solid	300_Prep	
885-8505-2	BH24-60 2.0'	Total/NA	Solid	300_Prep	
885-8505-3	BH24-60 4.0'	Total/NA	Solid	300_Prep	
885-8505-4	BH24-61 0.0'	Total/NA	Solid	300_Prep	
MB 885-9153/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9153/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 9198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-5	BH24-61 2.0'	Total/NA	Solid	300_Prep	
885-8505-6	BH24-61 4.0'	Total/NA	Solid	300_Prep	
885-8505-7	BH24-62 0.0'	Total/NA	Solid	300_Prep	
885-8505-8	BH24-62 2.0'	Total/NA	Solid	300_Prep	
885-8505-9	BH24-62 4.0'	Total/NA	Solid	300_Prep	
885-8505-10	BH24-63 0.0'	Total/NA	Solid	300_Prep	
885-8505-11	BH24-63 2.0'	Total/NA	Solid	300_Prep	
885-8505-12	BH24-63 4.0'	Total/NA	Solid	300_Prep	
885-8505-13	BH24-64 0.0'	Total/NA	Solid	300_Prep	
885-8505-14	BH24-64 2.0'	Total/NA	Solid	300_Prep	
885-8505-15	BH24-64 4.0'	Total/NA	Solid	300_Prep	
885-8505-16	BH24-65 0.0'	Total/NA	Solid	300_Prep	
885-8505-17	BH24-65 2.0'	Total/NA	Solid	300_Prep	
885-8505-18	BH24-65 4.0'	Total/NA	Solid	300_Prep	
885-8505-19	BH24-66 0.0'	Total/NA	Solid	300_Prep	
885-8505-20	BH24-66 2.0'	Total/NA	Solid	300_Prep	
885-8505-21	BH24-66 4.0'	Total/NA	Solid	300_Prep	
885-8505-22	BH24-67 0.0'	Total/NA	Solid	300_Prep	
885-8505-23	BH24-67 2.0'	Total/NA	Solid	300_Prep	
885-8505-24	BH24-67 4.0'	Total/NA	Solid	300_Prep	
MB 885-9198/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9198/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-8505-5 MS	BH24-61 2.0'	Total/NA	Solid	300_Prep	
885-8505-5 MSD	BH24-61 2.0'	Total/NA	Solid	300_Prep	
885-8505-6 MS	BH24-61 4.0'	Total/NA	Solid	300_Prep	
885-8505-6 MSD	BH24-61 4.0'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

HPLC/IC

Analysis Batch: 9200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-1	BH24-60 0.0'	Total/NA	Solid	300.0	9153
885-8505-2	BH24-60 2.0'	Total/NA	Solid	300.0	9153
885-8505-3	BH24-60 4.0'	Total/NA	Solid	300.0	9153
885-8505-4	BH24-61 0.0'	Total/NA	Solid	300.0	9153
885-8505-5	BH24-61 2.0'	Total/NA	Solid	300.0	9198
885-8505-6	BH24-61 4.0'	Total/NA	Solid	300.0	9198
885-8505-7	BH24-62 0.0'	Total/NA	Solid	300.0	9198
885-8505-8	BH24-62 2.0'	Total/NA	Solid	300.0	9198
885-8505-9	BH24-62 4.0'	Total/NA	Solid	300.0	9198
885-8505-10	BH24-63 0.0'	Total/NA	Solid	300.0	9198
885-8505-11	BH24-63 2.0'	Total/NA	Solid	300.0	9198
885-8505-12	BH24-63 4.0'	Total/NA	Solid	300.0	9198
885-8505-13	BH24-64 0.0'	Total/NA	Solid	300.0	9198
885-8505-14	BH24-64 2.0'	Total/NA	Solid	300.0	9198
885-8505-15	BH24-64 4.0'	Total/NA	Solid	300.0	9198
885-8505-16	BH24-65 0.0'	Total/NA	Solid	300.0	9198
885-8505-17	BH24-65 2.0'	Total/NA	Solid	300.0	9198
885-8505-18	BH24-65 4.0'	Total/NA	Solid	300.0	9198
885-8505-19	BH24-66 0.0'	Total/NA	Solid	300.0	9198
885-8505-20	BH24-66 2.0'	Total/NA	Solid	300.0	9198
885-8505-21	BH24-66 4.0'	Total/NA	Solid	300.0	9198
885-8505-22	BH24-67 0.0'	Total/NA	Solid	300.0	9198
885-8505-23	BH24-67 2.0'	Total/NA	Solid	300.0	9198
885-8505-24	BH24-67 4.0'	Total/NA	Solid	300.0	9198
885-8505-25	BH24-68 0.0'	Total/NA	Solid	300.0	9218
885-8505-26	BH24-68 2.0'	Total/NA	Solid	300.0	9218
885-8505-27	BH24-68 4.0'	Total/NA	Solid	300.0	9218
885-8505-28	BH24-69 0.0'	Total/NA	Solid	300.0	9218
885-8505-29	BH24-69 2.0'	Total/NA	Solid	300.0	9218
885-8505-30	BH24-69 40'	Total/NA	Solid	300.0	9218
885-8505-31	BH24-70 0.0'	Total/NA	Solid	300.0	9218
885-8505-32	BH24-70 2.0'	Total/NA	Solid	300.0	9218
885-8505-33	BH24-70 4.0'	Total/NA	Solid	300.0	9218
885-8505-34	BH24-71 0.0'	Total/NA	Solid	300.0	9218
885-8505-35	BH24-71 2.0'	Total/NA	Solid	300.0	9218
885-8505-36	BH24-71 4.0'	Total/NA	Solid	300.0	9218
MB 885-9153/1-A	Method Blank	Total/NA	Solid	300.0	9153
MB 885-9198/1-A	Method Blank	Total/NA	Solid	300.0	9198
MB 885-9218/1-A	Method Blank	Total/NA	Solid	300.0	9218
LCS 885-9153/2-A	Lab Control Sample	Total/NA	Solid	300.0	9153
LCS 885-9198/2-A	Lab Control Sample	Total/NA	Solid	300.0	9198
LCS 885-9218/2-A	Lab Control Sample	Total/NA	Solid	300.0	9218
885-8505-5 MS	BH24-61 2.0'	Total/NA	Solid	300.0	9198
885-8505-5 MSD	BH24-61 2.0'	Total/NA	Solid	300.0	9198
885-8505-6 MS	BH24-61 4.0'	Total/NA	Solid	300.0	9198
885-8505-6 MSD	BH24-61 4.0'	Total/NA	Solid	300.0	9198
885-8505-25 MS	BH24-68 0.0'	Total/NA	Solid	300.0	9218
885-8505-25 MSD	BH24-68 0.0'	Total/NA	Solid	300.0	9218

QC Association Summary

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

HPLC/IC

Prep Batch: 9218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8505-25	BH24-68 0.0'	Total/NA	Solid	300_Prep	
885-8505-26	BH24-68 2.0'	Total/NA	Solid	300_Prep	
885-8505-27	BH24-68 4.0'	Total/NA	Solid	300_Prep	
885-8505-28	BH24-69 0.0'	Total/NA	Solid	300_Prep	
885-8505-29	BH24-69 2.0'	Total/NA	Solid	300_Prep	
885-8505-30	BH24-69 40'	Total/NA	Solid	300_Prep	
885-8505-31	BH24-70 0.0'	Total/NA	Solid	300_Prep	
885-8505-32	BH24-70 2.0'	Total/NA	Solid	300_Prep	
885-8505-33	BH24-70 4.0'	Total/NA	Solid	300_Prep	
885-8505-34	BH24-71 0.0'	Total/NA	Solid	300_Prep	
885-8505-35	BH24-71 2.0'	Total/NA	Solid	300_Prep	
885-8505-36	BH24-71 4.0'	Total/NA	Solid	300_Prep	
MB 885-9218/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9218/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-8505-25 MS	BH24-68 0.0'	Total/NA	Solid	300_Prep	
885-8505-25 MSD	BH24-68 0.0'	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8505-1

Client Sample ID: BH24-60 0.0'
Lab Sample ID: 885-8505-1
Date Collected: 07/21/24 09:45
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 08:14
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 08:14
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 18:10
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 17:04

Client Sample ID: BH24-60 2.0'
Lab Sample ID: 885-8505-2
Date Collected: 07/21/24 09:50
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8015M/D		1	9271	RA	EET ALB	07/26/24 08:35
Total/NA	Prep	5030C			9063	JP	EET ALB	07/24/24 12:27
Total/NA	Analysis	8021B		1	9272	RA	EET ALB	07/26/24 08:35
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 18:35
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 17:16

Client Sample ID: BH24-60 4.0'
Lab Sample ID: 885-8505-3
Date Collected: 07/21/24 09:55
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 18:23
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 18:23
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 18:59
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 17:28

Client Sample ID: BH24-61 0.0'
Lab Sample ID: 885-8505-4
Date Collected: 07/21/24 10:00
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 19:34

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-61 0.0'
Lab Sample ID: 885-8505-4
Date Collected: 07/21/24 10:00
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 19:34
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 19:24
Total/NA	Prep	300_Prep			9153	RC	EET ALB	07/25/24 10:50
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 17:41

Client Sample ID: BH24-61 2.0'
Lab Sample ID: 885-8505-5
Date Collected: 07/21/24 10:05
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 20:44
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 20:44
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 19:49
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 18:18

Client Sample ID: BH24-61 4.0'
Lab Sample ID: 885-8505-6
Date Collected: 07/21/24 10:10
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 21:31
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 21:31
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 20:38
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 18:30

Client Sample ID: BH24-62 0.0'
Lab Sample ID: 885-8505-7
Date Collected: 07/21/24 10:20
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 21:55
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 21:55

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-62 0.0'
Lab Sample ID: 885-8505-7
Date Collected: 07/21/24 10:20
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 21:03
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 19:56

Client Sample ID: BH24-62 2.0'
Lab Sample ID: 885-8505-8
Date Collected: 07/21/24 10:25
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 22:18
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 22:18
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 21:28
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 20:09

Client Sample ID: BH24-62 4.0'
Lab Sample ID: 885-8505-9
Date Collected: 07/21/24 10:30
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 22:42
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 22:42
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 21:53
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 20:21

Client Sample ID: BH24-63 0.0'
Lab Sample ID: 885-8505-10
Date Collected: 07/21/24 10:40
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 23:05
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 23:05
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 22:17

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-63 0.0'
Lab Sample ID: 885-8505-10
Date Collected: 07/21/24 10:40
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 20:34

Client Sample ID: BH24-63 2.0'
Lab Sample ID: 885-8505-11
Date Collected: 07/21/24 10:45
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 23:29
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 23:29
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 22:42
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 20:46

Client Sample ID: BH24-63 4.0'
Lab Sample ID: 885-8505-12
Date Collected: 07/21/24 10:50
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/26/24 23:52
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/26/24 23:52
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 23:07
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 20:58

Client Sample ID: BH24-64 0.0'
Lab Sample ID: 885-8505-13
Date Collected: 07/21/24 11:00
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 00:39
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 00:39
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 23:31
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 21:35

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-64 2.0'
Lab Sample ID: 885-8505-14
Date Collected: 07/21/24 11:05
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 01:02
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 01:02
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/25/24 23:56
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 21:48

Client Sample ID: BH24-64 4.0'
Lab Sample ID: 885-8505-15
Date Collected: 07/21/24 11:10
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 01:26
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 01:26
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/26/24 00:21
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 22:00

Client Sample ID: BH24-65 0.0'
Lab Sample ID: 885-8505-16
Date Collected: 07/21/24 11:20
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 01:49
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 01:49
Total/NA	Prep	SHAKE			9157	KR	EET ALB	07/25/24 11:20
Total/NA	Analysis	8015M/D		1	9203	PD	EET ALB	07/26/24 00:46
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 22:12

Client Sample ID: BH24-65 2.0'
Lab Sample ID: 885-8505-17
Date Collected: 07/21/24 11:25
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 02:13

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-65 2.0'
Lab Sample ID: 885-8505-17
Date Collected: 07/21/24 11:25
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 02:13
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 13:58
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 22:25

Client Sample ID: BH24-65 4.0'
Lab Sample ID: 885-8505-18
Date Collected: 07/21/24 11:30
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 02:36
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 02:36
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 14:11
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 22:37

Client Sample ID: BH24-66 0.0'
Lab Sample ID: 885-8505-19
Date Collected: 07/22/24 09:45
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 03:00
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 03:00
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 14:24
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 22:49

Client Sample ID: BH24-66 2.0'
Lab Sample ID: 885-8505-20
Date Collected: 07/22/24 09:50
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 03:23
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 03:23

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-66 2.0'
Lab Sample ID: 885-8505-20
Date Collected: 07/22/24 09:50
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 14:37
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 23:02

Client Sample ID: BH24-66 4.0'
Lab Sample ID: 885-8505-21
Date Collected: 07/22/24 09:55
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 03:47
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 03:47
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 14:50
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 23:14

Client Sample ID: BH24-67 0.0'
Lab Sample ID: 885-8505-22
Date Collected: 07/22/24 10:00
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 04:10
Total/NA	Prep	5030C			9079	JP	EET ALB	07/24/24 14:41
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 04:10
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 15:03
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/25/24 23:26

Client Sample ID: BH24-67 2.0'
Lab Sample ID: 885-8505-23
Date Collected: 07/22/24 10:05
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 06:08
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 06:08
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 15:16

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-67 2.0'
Lab Sample ID: 885-8505-23
Date Collected: 07/22/24 10:05
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 00:04

Client Sample ID: BH24-67 4.0'
Lab Sample ID: 885-8505-24
Date Collected: 07/22/24 10:10
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 07:18
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 07:18
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 15:30
Total/NA	Prep	300_Prep			9198	RC	EET ALB	07/25/24 14:18
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 00:16

Client Sample ID: BH24-68 0.0'
Lab Sample ID: 885-8505-25
Date Collected: 07/22/24 10:15
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 08:28
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 08:28
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 15:44
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 00:53

Client Sample ID: BH24-68 2.0'
Lab Sample ID: 885-8505-26
Date Collected: 07/22/24 10:20
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 09:15
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 09:15
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 15:57
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 01:30

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-68 4.0'
Lab Sample ID: 885-8505-27
Date Collected: 07/22/24 10:25
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 09:39
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 09:39
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 16:25
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 01:42

Client Sample ID: BH24-69 0.0'
Lab Sample ID: 885-8505-28
Date Collected: 07/22/24 10:35
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 10:02
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 10:02
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 16:38
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 01:55

Client Sample ID: BH24-69 2.0'
Lab Sample ID: 885-8505-29
Date Collected: 07/22/24 10:40
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 10:26
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 10:26
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 16:52
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 02:32

Client Sample ID: BH24-69 40'
Lab Sample ID: 885-8505-30
Date Collected: 07/22/24 10:45
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 10:49

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-69 40'
Lab Sample ID: 885-8505-30
Date Collected: 07/22/24 10:45
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 10:49
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 17:05
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 02:44

Client Sample ID: BH24-70 0.0'
Lab Sample ID: 885-8505-31
Date Collected: 07/22/24 10:55
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 11:13
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 11:13
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 17:19
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 02:56

Client Sample ID: BH24-70 2.0'
Lab Sample ID: 885-8505-32
Date Collected: 07/22/24 11:00
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 11:36
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 11:36
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 17:32
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 03:09

Client Sample ID: BH24-70 4.0'
Lab Sample ID: 885-8505-33
Date Collected: 07/22/24 11:05
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 12:23
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 12:23

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-70 4.0'
Lab Sample ID: 885-8505-33
Date Collected: 07/22/24 11:05
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 17:46
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 03:21

Client Sample ID: BH24-71 0.0'
Lab Sample ID: 885-8505-34
Date Collected: 07/22/24 11:15
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 12:47
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 12:47
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 18:00
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 03:34

Client Sample ID: BH24-71 2.0'
Lab Sample ID: 885-8505-35
Date Collected: 07/22/24 11:20
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 13:10
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 13:10
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 18:13
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 03:46

Client Sample ID: BH24-71 4.0'
Lab Sample ID: 885-8505-36
Date Collected: 07/22/24 11:25
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8015M/D		1	9284	JP	EET ALB	07/27/24 13:33
Total/NA	Prep	5030C			9093	JR	EET ALB	07/24/24 16:20
Total/NA	Analysis	8021B		1	9285	JP	EET ALB	07/27/24 13:33
Total/NA	Prep	SHAKE			9164	DH	EET ALB	07/25/24 11:47
Total/NA	Analysis	8015M/D		1	9201	DH	EET ALB	07/25/24 18:27

Lab Chronicle

Client: Vertex
Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-71 4.0'
Lab Sample ID: 885-8505-36
Date Collected: 07/22/24 11:25
Matrix: Solid
Date Received: 07/24/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9218	MA	EET ALB	07/25/24 17:22
Total/NA	Analysis	300.0		20	9200	RC	EET ALB	07/26/24 03:58

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8505-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr. Carlshad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 1.5 +0 = 1.5 (°C)

HALL ENVIRONM
ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-8505 COC

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.21.24	0945	Soil	BH24-60	0.0'	4oz	ICE	1										
	0950		BH24-60	2.0'			2										
	0955		BH24-60	4.0'			3										
	1000		BH24-61	0.0'			4										
	1005		BH24-61	2.0'			5										
	1010		BH24-61	4.0'			6										
	1020		BH24-62	0.0'			7										
	1025		BH24-62	2.0'			8										
	1030		BH24-62	4.0'			9										
	1040		BH24-63	0.0'			10										
	1045		BH24-63	2.0'			11										
↓	1050	↓	BH24-63	4.0'	↓	↓	12	↓	↓					↓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1830				7/23/24	1030
7/23/24	1900			courier	7/24/24	7:05

Remarks: Direct Bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc 3101 Boyd Dr. Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No Yes

# of Coolers: 1

Cooler Temp(including CF): 1.5 ± 0 = 1.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.21.24	1100	Soil	BH24-64	0.0'	4oz	ICE	13										
	1105		BH24-64	2.0'			14										
	1110		BH24-64	4.0'			15										
	1120		BH24-65	0.0'			16										
	1125		BH24-65	2.0'			17										
	1130		BH24-65	4.0'			18										
7.22.24	0945		BH24-66	0.0'			19										
	0950		BH24-66	2.0'			20										
	0955		BH24-66	4.0'			21										
	1000		BH24-67	0.0'			22										
	1005		BH24-67	2.0'			23										
	1010		BH24-67	4.0'			24										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1030				7/23/24	1030
7/23/24	1900			Courier	7/24/24	7:15

Remarks: Direct Bill to Mack Energy
cc: Scarttar@vertex.ca
ALuduik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr. Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(Including CF): 1.5 ± 0 = 1.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.22.24	1015	Soil	BH24-68 0.0'	4oz	ICE	25										
	1020		BH24-68 2.0'			26										
	1025		BH24-68 4.0'			27										
	1035		BH24-69 0.0'			28										
	1040		BH24-69 2.0'			29										
	1045		BH24-69 4.0'			30										
	1055		BH24-70 0.0'			31										
	1100		BH24-70 2.0'			32										
	1105		BH24-70 4.0'			33										
	1115		BH24-71 0.0'			34										
	1120		BH24-71 2.0'			35										
↓	1125	↓	BH24-71 4.0'	↓	↓	36	↓	↓					↓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1030				7/23/24	1030
7/23/24	1900			Courier	7/24/24	7:15

Remarks: Direct Bill to Mack Energy
cc: sCarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8505-1

Login Number: 8505 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 8/1/2024 10:24:24 AM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8625-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
8/1/2024 10:24:24 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Released to Imaging: 2/19/2025 2:59:10 PM

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8625-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 24
QC Association Summary 29
Lab Chronicle 33
Certification Summary 39
Chain of Custody 40
Receipt Checklists 42

Definitions/Glossary

Client: Vertex Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8625-1
Project: Dawson Creek State #2

Job ID: 885-8625-1 Eurofins Albuquerque

Job Narrative
885-8625-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/25/2024 7:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following CCV is outside the lower control limit: (CCV 885-9333/40). All samples that have failing low surrogate will be re-ran. No samples affected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-72 0.0'
Lab Sample ID: 885-8625-1
Date Collected: 07/23/24 09:40
Matrix: Solid
Date Received: 07/25/24 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/25/24 15:39	07/29/24 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/25/24 15:39*	*07/29/24 01:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/25/24 15:39	07/29/24 01:40	1
Ethylbenzene	ND		0.047		mg/Kg		07/25/24 15:39	07/29/24 01:40	1
Toluene	ND		0.047		mg/Kg		07/25/24 15:39	07/29/24 01:40	1
Xylenes, Total	ND		0.094		mg/Kg		07/25/24 15:39	07/29/24 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/25/24 15:39*	*07/29/24 01:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/26/24 11:38	07/27/24 12:14	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/26/24 11:38	07/27/24 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*07/26/24 11:38*	*07/27/24 12:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 08:50	07/27/24 17:47	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-72 2.0'

Date Collected: 07/23/24 09:45
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/26/24 11:03	07/29/24 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*		*35 - 166*	*07/26/24 11:03*	*07/29/24 13:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 11:03	07/29/24 13:51	1
Ethylbenzene	ND		0.050		mg/Kg		07/26/24 11:03	07/29/24 13:51	1
Toluene	ND		0.050		mg/Kg		07/26/24 11:03	07/29/24 13:51	1
Xylenes, Total	ND		0.099		mg/Kg		07/26/24 11:03	07/29/24 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*07/26/24 11:03*	*07/29/24 13:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		07/26/24 14:53	07/29/24 11:45	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/26/24 14:53	07/29/24 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*07/26/24 14:53*	*07/29/24 11:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 08:50	07/27/24 18:00	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-72 4.0'

Date Collected: 07/23/24 09:50
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 11:03	07/29/24 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*07/26/24 11:03*	*07/29/24 15:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 15:02	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 15:02	1
Toluene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 15:02	1
Xylenes, Total	ND		0.095		mg/Kg		07/26/24 11:03	07/29/24 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/26/24 11:03*	*07/29/24 15:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		07/26/24 14:53	07/29/24 11:58	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/26/24 14:53	07/29/24 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/26/24 14:53*	*07/29/24 11:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 08:50	07/27/24 18:12	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-73 0.0'

Date Collected: 07/23/24 10:00
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 11:03	07/29/24 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/26/24 11:03*	*07/29/24 16:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 16:13	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 16:13	1
Toluene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 16:13	1
Xylenes, Total	ND		0.096		mg/Kg		07/26/24 11:03	07/29/24 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/26/24 11:03*	*07/29/24 16:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/26/24 14:53	07/29/24 12:10	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/26/24 14:53	07/29/24 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/26/24 14:53*	*07/29/24 12:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 18:24	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-73 2.0'

Date Collected: 07/23/24 10:05
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 11:03	07/29/24 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/26/24 11:03*	*07/29/24 16:37*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/26/24 11:03	07/29/24 16:37	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 16:37	1
Toluene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 16:37	1
Xylenes, Total	ND		0.093		mg/Kg		07/26/24 11:03	07/29/24 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/26/24 11:03*	*07/29/24 16:37*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/26/24 14:53	07/29/24 12:23	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/26/24 14:53	07/29/24 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*80*		*62 - 134*	*07/26/24 14:53*	*07/29/24 12:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 18:37	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-73 4.0'

Date Collected: 07/23/24 10:10
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 11:03	07/29/24 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/26/24 11:03*	*07/29/24 17:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 17:01	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 17:01	1
Toluene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 17:01	1
Xylenes, Total	ND		0.094		mg/Kg		07/26/24 11:03	07/29/24 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/26/24 11:03*	*07/29/24 17:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/26/24 14:53	07/29/24 12:36	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/26/24 14:53	07/29/24 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*07/26/24 14:53*	*07/29/24 12:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 19:14	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-74 0.0'

Date Collected: 07/23/24 10:15
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 11:03	07/29/24 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/26/24 11:03*	*07/29/24 17:24*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 17:24	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 17:24	1
Toluene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 17:24	1
Xylenes, Total	ND		0.098		mg/Kg		07/26/24 11:03	07/29/24 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/26/24 11:03*	*07/29/24 17:24*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/26/24 14:53	07/29/24 12:49	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/26/24 14:53	07/29/24 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*07/26/24 14:53*	*07/29/24 12:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**270**		60		mg/Kg		07/27/24 10:01	07/27/24 19:51	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-74 2.0'

Date Collected: 07/23/24 10:20
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 11:03	07/29/24 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*07/26/24 11:03*	*07/29/24 17:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 11:03	07/29/24 17:48	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 17:48	1
Toluene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 17:48	1
Xylenes, Total	ND		0.099		mg/Kg		07/26/24 11:03	07/29/24 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/26/24 11:03*	*07/29/24 17:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		07/26/24 14:53	07/29/24 13:02	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/26/24 14:53	07/29/24 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*07/26/24 14:53*	*07/29/24 13:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 20:03	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-74 4.0'

Date Collected: 07/23/24 10:25
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 11:03	07/29/24 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/26/24 11:03*	*07/29/24 18:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 18:12	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 18:12	1
Toluene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 18:12	1
Xylenes, Total	ND		0.097		mg/Kg		07/26/24 11:03	07/29/24 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/26/24 11:03*	*07/29/24 18:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		07/26/24 14:53	07/29/24 13:15	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/26/24 14:53	07/29/24 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*07/26/24 14:53*	*07/29/24 13:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 20:40	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-75 0.0'

Date Collected: 07/23/24 10:40
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-10

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 11:03	07/29/24 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/26/24 11:03*	*07/29/24 18:59*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 11:03	07/29/24 18:59	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 18:59	1
Toluene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 18:59	1
Xylenes, Total	ND		0.099		mg/Kg		07/26/24 11:03	07/29/24 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/26/24 11:03*	*07/29/24 18:59*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/26/24 14:53	07/29/24 13:28	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/26/24 14:53	07/29/24 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/26/24 14:53*	*07/29/24 13:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61		mg/Kg		07/27/24 10:01	07/27/24 20:53	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-75 2.0'

Date Collected: 07/23/24 10:45
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-11

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 11:03	07/29/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*07/26/24 11:03*	*07/29/24 19:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 19:23	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 19:23	1
Toluene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 19:23	1
Xylenes, Total	ND		0.095		mg/Kg		07/26/24 11:03	07/29/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*07/26/24 11:03*	*07/29/24 19:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/26/24 14:53	07/29/24 13:41	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/26/24 14:53	07/29/24 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*07/26/24 14:53*	*07/29/24 13:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 21:05	20

Client Sample Results

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-75 4.0'
Lab Sample ID: 885-8625-12
Date Collected: 07/23/24 10:50
Matrix: Solid
Date Received: 07/25/24 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 11:03	07/29/24 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/26/24 11:03*	*07/29/24 19:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 19:46	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 19:46	1
Toluene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 19:46	1
Xylenes, Total	ND		0.097		mg/Kg		07/26/24 11:03	07/29/24 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/26/24 11:03*	*07/29/24 19:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		07/26/24 14:53	07/29/24 14:07	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/26/24 14:53	07/29/24 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*80*		*62 - 134*	*07/26/24 14:53*	*07/29/24 14:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		07/27/24 10:01	07/27/24 21:42	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-76 0.0'

Date Collected: 07/23/24 11:10
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 11:03	07/29/24 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*07/26/24 11:03*	*07/29/24 20:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 20:10	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 20:10	1
Toluene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 20:10	1
Xylenes, Total	ND		0.095		mg/Kg		07/26/24 11:03	07/29/24 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/26/24 11:03*	*07/29/24 20:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/26/24 14:53	07/29/24 14:20	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/26/24 14:53	07/29/24 14:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*07/26/24 14:53*	*07/29/24 14:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 21:54	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-76 2.0'

Date Collected: 07/23/24 11:15
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-14

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 11:03	07/29/24 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/26/24 11:03*	*07/29/24 20:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 20:33	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 20:33	1
Toluene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 20:33	1
Xylenes, Total	ND		0.097		mg/Kg		07/26/24 11:03	07/29/24 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/26/24 11:03*	*07/29/24 20:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/26/24 14:53	07/29/24 14:33	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/26/24 14:53	07/29/24 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*77*		*62 - 134*	*07/26/24 14:53*	*07/29/24 14:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 22:07	20

Client Sample Results

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-76 4.0'
Lab Sample ID: 885-8625-15
Date Collected: 07/23/24 11:20
Matrix: Solid
Date Received: 07/25/24 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 11:03	07/29/24 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*07/26/24 11:03*	*07/29/24 20:57*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 20:57	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 20:57	1
Toluene	ND		0.048		mg/Kg		07/26/24 11:03	07/29/24 20:57	1
Xylenes, Total	ND		0.095		mg/Kg		07/26/24 11:03	07/29/24 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/26/24 11:03*	*07/29/24 20:57*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		07/26/24 14:53	07/29/24 14:46	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/26/24 14:53	07/29/24 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*07/26/24 14:53*	*07/29/24 14:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**70**		60		mg/Kg		07/27/24 10:01	07/27/24 22:19	20

Client Sample Results

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-77 0.0'
Lab Sample ID: 885-8625-16
Date Collected: 07/23/24 11:25
Matrix: Solid
Date Received: 07/25/24 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 11:03	07/29/24 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/26/24 11:03*	*07/29/24 21:20*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 11:03	07/29/24 21:20	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 21:20	1
Toluene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 21:20	1
Xylenes, Total	ND		0.099		mg/Kg		07/26/24 11:03	07/29/24 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*07/26/24 11:03*	*07/29/24 21:20*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		07/26/24 14:53	07/29/24 14:59	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/26/24 14:53	07/29/24 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*07/26/24 14:53*	*07/29/24 14:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		07/27/24 10:01	07/27/24 22:31	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-77 2.0'

Date Collected: 07/23/24 11:30
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-17

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 11:03	07/29/24 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/26/24 11:03*	*07/29/24 21:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 21:44	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 21:44	1
Toluene	ND		0.049		mg/Kg		07/26/24 11:03	07/29/24 21:44	1
Xylenes, Total	ND		0.097		mg/Kg		07/26/24 11:03	07/29/24 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/26/24 11:03*	*07/29/24 21:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/26/24 14:53	07/29/24 15:12	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/26/24 14:53	07/29/24 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*69*		*62 - 134*	*07/26/24 14:53*	*07/29/24 15:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 22:44	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Client Sample ID: BH24-77 4.0'

Date Collected: 07/23/24 11:35
Date Received: 07/25/24 07:35

Lab Sample ID: 885-8625-18

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 11:03	07/29/24 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/26/24 11:03*	*07/29/24 22:07*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/26/24 11:03	07/29/24 22:07	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 22:07	1
Toluene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 22:07	1
Xylenes, Total	ND		0.094		mg/Kg		07/26/24 11:03	07/29/24 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/26/24 11:03*	*07/29/24 22:07*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/26/24 14:53	07/29/24 15:25	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/26/24 14:53	07/29/24 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/26/24 14:53*	*07/29/24 15:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		60		mg/Kg		07/27/24 10:01	07/27/24 22:56	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-9212/1-A
Matrix: Solid
Analysis Batch: 9360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9212

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/25/24 15:39	07/28/24 15:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/25/24 15:39*	*07/28/24 15:51*	*1*

Lab Sample ID: LCS 885-9212/2-A
Matrix: Solid
Analysis Batch: 9360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9212

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.7		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*205*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-9270/1-A
Matrix: Solid
Analysis Batch: 9393

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9270

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/26/24 11:03	07/29/24 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/26/24 11:03*	*07/29/24 12:41*	*1*

Lab Sample ID: LCS 885-9270/2-A
Matrix: Solid
Analysis Batch: 9393

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9270

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.3		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*35 - 166*

Lab Sample ID: 885-8625-2 MS
Matrix: Solid
Analysis Batch: 9393

Client Sample ID: BH24-72 2.0'
Prep Type: Total/NA
Prep Batch: 9270

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		25.0	21.1		mg/Kg		78	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*217*	*S1+*	*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-8625-2 MSD
Matrix: Solid
Analysis Batch: 9393

Client Sample ID: BH24-72 2.0'
Prep Type: Total/NA
Prep Batch: 9270

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.8	22.0		mg/Kg		82	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-9212/1-A
Matrix: Solid
Analysis Batch: 9361

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9212

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/25/24 15:39	07/28/24 15:51	1
Ethylbenzene	ND		0.050		mg/Kg		07/25/24 15:39	07/28/24 15:51	1
Toluene	ND		0.050		mg/Kg		07/25/24 15:39	07/28/24 15:51	1
Xylenes, Total	ND		0.10		mg/Kg		07/25/24 15:39	07/28/24 15:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/25/24 15:39*	*07/28/24 15:51*	*1*

Lab Sample ID: LCS 885-9212/3-A
Matrix: Solid
Analysis Batch: 9361

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9212

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.894		mg/Kg		89	70 - 130		
Ethylbenzene			1.00	0.842		mg/Kg		84	70 - 130		
m,p-Xylene			2.00	1.72		mg/Kg		86	70 - 130		
o-Xylene			1.00	0.836		mg/Kg		84	70 - 130		
Toluene			1.00	0.853		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

Lab Sample ID: MB 885-9270/1-A
Matrix: Solid
Analysis Batch: 9395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9270

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 11:03	07/29/24 12:41	1
Ethylbenzene	ND		0.050		mg/Kg		07/26/24 11:03	07/29/24 12:41	1
Toluene	ND		0.050		mg/Kg		07/26/24 11:03	07/29/24 12:41	1
Xylenes, Total	ND		0.10		mg/Kg		07/26/24 11:03	07/29/24 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/26/24 11:03*	*07/29/24 12:41*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-9270/3-A
Matrix: Solid
Analysis Batch: 9395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9270

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.878		mg/Kg		88	70 - 130		
Ethylbenzene			1.00	0.826		mg/Kg		83	70 - 130		
m,p-Xylene			2.00	1.67		mg/Kg		83	70 - 130		
o-Xylene			1.00	0.814		mg/Kg		81	70 - 130		
Toluene			1.00	0.824		mg/Kg		82	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

Lab Sample ID: 885-8625-3 MS
Matrix: Solid
Analysis Batch: 9395

Client Sample ID: BH24-72 4.0'
Prep Type: Total/NA
Prep Batch: 9270

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.949	0.840		mg/Kg		89	70 - 130		
Ethylbenzene	ND		0.949	0.818		mg/Kg		86	70 - 130		
m,p-Xylene	ND		1.90	1.65		mg/Kg		86	70 - 130		
o-Xylene	ND		0.949	0.801		mg/Kg		84	70 - 130		
Toluene	ND		0.949	0.801		mg/Kg		83	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: 885-8625-3 MSD
Matrix: Solid
Analysis Batch: 9395

Client Sample ID: BH24-72 4.0'
Prep Type: Total/NA
Prep Batch: 9270

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.946	0.882		mg/Kg		93	70 - 130	5	20
Ethylbenzene	ND		0.946	0.851		mg/Kg		90	70 - 130	4	20
m,p-Xylene	ND		1.89	1.72		mg/Kg		89	70 - 130	4	20
o-Xylene	ND		0.946	0.842		mg/Kg		89	70 - 130	5	20
Toluene	ND		0.946	0.850		mg/Kg		88	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-9275/1-A
Matrix: Solid
Analysis Batch: 9226

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9275

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/26/24 11:38	07/27/24 03:37	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/26/24 11:38	07/27/24 03:37	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-9275/1-A
Matrix: Solid
Analysis Batch: 9226

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9275

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	91		62 - 134	07/26/24 11:38	07/27/24 03:37	1

Lab Sample ID: LCS 885-9275/2-A
Matrix: Solid
Analysis Batch: 9226

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9275

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	54.4		mg/Kg		109	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	96		62 - 134

Lab Sample ID: MB 885-9292/1-A
Matrix: Solid
Analysis Batch: 9333

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9292

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/26/24 14:53	07/29/24 11:19	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/26/24 14:53	07/29/24 11:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	95		62 - 134	07/26/24 14:53	07/29/24 11:19	1

Lab Sample ID: LCS 885-9292/2-A
Matrix: Solid
Analysis Batch: 9333

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9292

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	48.5		mg/Kg		97	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	91		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9308/1-A
Matrix: Solid
Analysis Batch: 9336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9308

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/27/24 08:50	07/27/24 11:49	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-9308/2-A
Matrix: Solid
Analysis Batch: 9336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9308

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	27.9		mg/Kg		93	90 - 110		

Lab Sample ID: MB 885-9311/1-A
Matrix: Solid
Analysis Batch: 9336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9311

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/27/24 10:01	07/27/24 12:14	1

Lab Sample ID: LCS 885-9311/2-A
Matrix: Solid
Analysis Batch: 9336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9311

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	27.9		mg/Kg		93	90 - 110		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

GC VOA

Prep Batch: 9212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-1	BH24-72 0.0'	Total/NA	Solid	5030C	
MB 885-9212/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9212/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9212/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 9270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-2	BH24-72 2.0'	Total/NA	Solid	5030C	
885-8625-3	BH24-72 4.0'	Total/NA	Solid	5030C	
885-8625-4	BH24-73 0.0'	Total/NA	Solid	5030C	
885-8625-5	BH24-73 2.0'	Total/NA	Solid	5030C	
885-8625-6	BH24-73 4.0'	Total/NA	Solid	5030C	
885-8625-7	BH24-74 0.0'	Total/NA	Solid	5030C	
885-8625-8	BH24-74 2.0'	Total/NA	Solid	5030C	
885-8625-9	BH24-74 4.0'	Total/NA	Solid	5030C	
885-8625-10	BH24-75 0.0'	Total/NA	Solid	5030C	
885-8625-11	BH24-75 2.0'	Total/NA	Solid	5030C	
885-8625-12	BH24-75 4.0'	Total/NA	Solid	5030C	
885-8625-13	BH24-76 0.0'	Total/NA	Solid	5030C	
885-8625-14	BH24-76 2.0'	Total/NA	Solid	5030C	
885-8625-15	BH24-76 4.0'	Total/NA	Solid	5030C	
885-8625-16	BH24-77 0.0'	Total/NA	Solid	5030C	
885-8625-17	BH24-77 2.0'	Total/NA	Solid	5030C	
885-8625-18	BH24-77 4.0'	Total/NA	Solid	5030C	
MB 885-9270/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9270/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9270/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-8625-2 MS	BH24-72 2.0'	Total/NA	Solid	5030C	
885-8625-2 MSD	BH24-72 2.0'	Total/NA	Solid	5030C	
885-8625-3 MS	BH24-72 4.0'	Total/NA	Solid	5030C	
885-8625-3 MSD	BH24-72 4.0'	Total/NA	Solid	5030C	

Analysis Batch: 9360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-1	BH24-72 0.0'	Total/NA	Solid	8015M/D	9212
MB 885-9212/1-A	Method Blank	Total/NA	Solid	8015M/D	9212
LCS 885-9212/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9212

Analysis Batch: 9361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-1	BH24-72 0.0'	Total/NA	Solid	8021B	9212
MB 885-9212/1-A	Method Blank	Total/NA	Solid	8021B	9212
LCS 885-9212/3-A	Lab Control Sample	Total/NA	Solid	8021B	9212

Analysis Batch: 9393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-2	BH24-72 2.0'	Total/NA	Solid	8015M/D	9270
885-8625-3	BH24-72 4.0'	Total/NA	Solid	8015M/D	9270
885-8625-4	BH24-73 0.0'	Total/NA	Solid	8015M/D	9270
885-8625-5	BH24-73 2.0'	Total/NA	Solid	8015M/D	9270
885-8625-6	BH24-73 4.0'	Total/NA	Solid	8015M/D	9270

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

GC VOA (Continued)

Analysis Batch: 9393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-7	BH24-74 0.0'	Total/NA	Solid	8015M/D	9270
885-8625-8	BH24-74 2.0'	Total/NA	Solid	8015M/D	9270
885-8625-9	BH24-74 4.0'	Total/NA	Solid	8015M/D	9270
885-8625-10	BH24-75 0.0'	Total/NA	Solid	8015M/D	9270
885-8625-11	BH24-75 2.0'	Total/NA	Solid	8015M/D	9270
885-8625-12	BH24-75 4.0'	Total/NA	Solid	8015M/D	9270
885-8625-13	BH24-76 0.0'	Total/NA	Solid	8015M/D	9270
885-8625-14	BH24-76 2.0'	Total/NA	Solid	8015M/D	9270
885-8625-15	BH24-76 4.0'	Total/NA	Solid	8015M/D	9270
885-8625-16	BH24-77 0.0'	Total/NA	Solid	8015M/D	9270
885-8625-17	BH24-77 2.0'	Total/NA	Solid	8015M/D	9270
885-8625-18	BH24-77 4.0'	Total/NA	Solid	8015M/D	9270
MB 885-9270/1-A	Method Blank	Total/NA	Solid	8015M/D	9270
LCS 885-9270/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9270
885-8625-2 MS	BH24-72 2.0'	Total/NA	Solid	8015M/D	9270
885-8625-2 MSD	BH24-72 2.0'	Total/NA	Solid	8015M/D	9270

Analysis Batch: 9395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-2	BH24-72 2.0'	Total/NA	Solid	8021B	9270
885-8625-3	BH24-72 4.0'	Total/NA	Solid	8021B	9270
885-8625-4	BH24-73 0.0'	Total/NA	Solid	8021B	9270
885-8625-5	BH24-73 2.0'	Total/NA	Solid	8021B	9270
885-8625-6	BH24-73 4.0'	Total/NA	Solid	8021B	9270
885-8625-7	BH24-74 0.0'	Total/NA	Solid	8021B	9270
885-8625-8	BH24-74 2.0'	Total/NA	Solid	8021B	9270
885-8625-9	BH24-74 4.0'	Total/NA	Solid	8021B	9270
885-8625-10	BH24-75 0.0'	Total/NA	Solid	8021B	9270
885-8625-11	BH24-75 2.0'	Total/NA	Solid	8021B	9270
885-8625-12	BH24-75 4.0'	Total/NA	Solid	8021B	9270
885-8625-13	BH24-76 0.0'	Total/NA	Solid	8021B	9270
885-8625-14	BH24-76 2.0'	Total/NA	Solid	8021B	9270
885-8625-15	BH24-76 4.0'	Total/NA	Solid	8021B	9270
885-8625-16	BH24-77 0.0'	Total/NA	Solid	8021B	9270
885-8625-17	BH24-77 2.0'	Total/NA	Solid	8021B	9270
885-8625-18	BH24-77 4.0'	Total/NA	Solid	8021B	9270
MB 885-9270/1-A	Method Blank	Total/NA	Solid	8021B	9270
LCS 885-9270/3-A	Lab Control Sample	Total/NA	Solid	8021B	9270
885-8625-3 MS	BH24-72 4.0'	Total/NA	Solid	8021B	9270
885-8625-3 MSD	BH24-72 4.0'	Total/NA	Solid	8021B	9270

GC Semi VOA

Analysis Batch: 9226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-1	BH24-72 0.0'	Total/NA	Solid	8015M/D	9275
MB 885-9275/1-A	Method Blank	Total/NA	Solid	8015M/D	9275
LCS 885-9275/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9275

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

GC Semi VOA

Prep Batch: 9275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-1	BH24-72 0.0'	Total/NA	Solid	SHAKE	
MB 885-9275/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9275/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Prep Batch: 9292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-2	BH24-72 2.0'	Total/NA	Solid	SHAKE	
885-8625-3	BH24-72 4.0'	Total/NA	Solid	SHAKE	
885-8625-4	BH24-73 0.0'	Total/NA	Solid	SHAKE	
885-8625-5	BH24-73 2.0'	Total/NA	Solid	SHAKE	
885-8625-6	BH24-73 4.0'	Total/NA	Solid	SHAKE	
885-8625-7	BH24-74 0.0'	Total/NA	Solid	SHAKE	
885-8625-8	BH24-74 2.0'	Total/NA	Solid	SHAKE	
885-8625-9	BH24-74 4.0'	Total/NA	Solid	SHAKE	
885-8625-10	BH24-75 0.0'	Total/NA	Solid	SHAKE	
885-8625-11	BH24-75 2.0'	Total/NA	Solid	SHAKE	
885-8625-12	BH24-75 4.0'	Total/NA	Solid	SHAKE	
885-8625-13	BH24-76 0.0'	Total/NA	Solid	SHAKE	
885-8625-14	BH24-76 2.0'	Total/NA	Solid	SHAKE	
885-8625-15	BH24-76 4.0'	Total/NA	Solid	SHAKE	
885-8625-16	BH24-77 0.0'	Total/NA	Solid	SHAKE	
885-8625-17	BH24-77 2.0'	Total/NA	Solid	SHAKE	
885-8625-18	BH24-77 4.0'	Total/NA	Solid	SHAKE	
MB 885-9292/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9292/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 9333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-2	BH24-72 2.0'	Total/NA	Solid	8015M/D	9292
885-8625-3	BH24-72 4.0'	Total/NA	Solid	8015M/D	9292
885-8625-4	BH24-73 0.0'	Total/NA	Solid	8015M/D	9292
885-8625-5	BH24-73 2.0'	Total/NA	Solid	8015M/D	9292
885-8625-6	BH24-73 4.0'	Total/NA	Solid	8015M/D	9292
885-8625-7	BH24-74 0.0'	Total/NA	Solid	8015M/D	9292
885-8625-8	BH24-74 2.0'	Total/NA	Solid	8015M/D	9292
885-8625-9	BH24-74 4.0'	Total/NA	Solid	8015M/D	9292
885-8625-10	BH24-75 0.0'	Total/NA	Solid	8015M/D	9292
885-8625-11	BH24-75 2.0'	Total/NA	Solid	8015M/D	9292
885-8625-12	BH24-75 4.0'	Total/NA	Solid	8015M/D	9292
885-8625-13	BH24-76 0.0'	Total/NA	Solid	8015M/D	9292
885-8625-14	BH24-76 2.0'	Total/NA	Solid	8015M/D	9292
885-8625-15	BH24-76 4.0'	Total/NA	Solid	8015M/D	9292
885-8625-16	BH24-77 0.0'	Total/NA	Solid	8015M/D	9292
885-8625-17	BH24-77 2.0'	Total/NA	Solid	8015M/D	9292
885-8625-18	BH24-77 4.0'	Total/NA	Solid	8015M/D	9292
MB 885-9292/1-A	Method Blank	Total/NA	Solid	8015M/D	9292
LCS 885-9292/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9292

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8625-1

HPLC/IC

Prep Batch: 9308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-1	BH24-72 0.0'	Total/NA	Solid	300_Prep	
885-8625-2	BH24-72 2.0'	Total/NA	Solid	300_Prep	
885-8625-3	BH24-72 4.0'	Total/NA	Solid	300_Prep	
MB 885-9308/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9308/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 9311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-4	BH24-73 0.0'	Total/NA	Solid	300_Prep	
885-8625-5	BH24-73 2.0'	Total/NA	Solid	300_Prep	
885-8625-6	BH24-73 4.0'	Total/NA	Solid	300_Prep	
885-8625-7	BH24-74 0.0'	Total/NA	Solid	300_Prep	
885-8625-8	BH24-74 2.0'	Total/NA	Solid	300_Prep	
885-8625-9	BH24-74 4.0'	Total/NA	Solid	300_Prep	
885-8625-10	BH24-75 0.0'	Total/NA	Solid	300_Prep	
885-8625-11	BH24-75 2.0'	Total/NA	Solid	300_Prep	
885-8625-12	BH24-75 4.0'	Total/NA	Solid	300_Prep	
885-8625-13	BH24-76 0.0'	Total/NA	Solid	300_Prep	
885-8625-14	BH24-76 2.0'	Total/NA	Solid	300_Prep	
885-8625-15	BH24-76 4.0'	Total/NA	Solid	300_Prep	
885-8625-16	BH24-77 0.0'	Total/NA	Solid	300_Prep	
885-8625-17	BH24-77 2.0'	Total/NA	Solid	300_Prep	
885-8625-18	BH24-77 4.0'	Total/NA	Solid	300_Prep	
MB 885-9311/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9311/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8625-1	BH24-72 0.0'	Total/NA	Solid	300.0	9308
885-8625-2	BH24-72 2.0'	Total/NA	Solid	300.0	9308
885-8625-3	BH24-72 4.0'	Total/NA	Solid	300.0	9308
885-8625-4	BH24-73 0.0'	Total/NA	Solid	300.0	9311
885-8625-5	BH24-73 2.0'	Total/NA	Solid	300.0	9311
885-8625-6	BH24-73 4.0'	Total/NA	Solid	300.0	9311
885-8625-7	BH24-74 0.0'	Total/NA	Solid	300.0	9311
885-8625-8	BH24-74 2.0'	Total/NA	Solid	300.0	9311
885-8625-9	BH24-74 4.0'	Total/NA	Solid	300.0	9311
885-8625-10	BH24-75 0.0'	Total/NA	Solid	300.0	9311
885-8625-11	BH24-75 2.0'	Total/NA	Solid	300.0	9311
885-8625-12	BH24-75 4.0'	Total/NA	Solid	300.0	9311
885-8625-13	BH24-76 0.0'	Total/NA	Solid	300.0	9311
885-8625-14	BH24-76 2.0'	Total/NA	Solid	300.0	9311
885-8625-15	BH24-76 4.0'	Total/NA	Solid	300.0	9311
885-8625-16	BH24-77 0.0'	Total/NA	Solid	300.0	9311
885-8625-17	BH24-77 2.0'	Total/NA	Solid	300.0	9311
885-8625-18	BH24-77 4.0'	Total/NA	Solid	300.0	9311
MB 885-9308/1-A	Method Blank	Total/NA	Solid	300.0	9308
MB 885-9311/1-A	Method Blank	Total/NA	Solid	300.0	9311
LCS 885-9308/2-A	Lab Control Sample	Total/NA	Solid	300.0	9308
LCS 885-9311/2-A	Lab Control Sample	Total/NA	Solid	300.0	9311

Lab Chronicle

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-72 0.0'
Lab Sample ID: 885-8625-1
Date Collected: 07/23/24 09:40
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9212	JR	EET ALB	07/25/24 15:39
Total/NA	Analysis	8015M/D		1	9360	JP	EET ALB	07/29/24 01:40
Total/NA	Prep	5030C			9212	JR	EET ALB	07/25/24 15:39
Total/NA	Analysis	8021B		1	9361	JP	EET ALB	07/29/24 01:40
Total/NA	Prep	SHAKE			9275	PD	EET ALB	07/26/24 11:38
Total/NA	Analysis	8015M/D		1	9226	PD	EET ALB	07/27/24 12:14
Total/NA	Prep	300_Prep			9308	RC	EET ALB	07/27/24 08:50
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 17:47

Client Sample ID: BH24-72 2.0'
Lab Sample ID: 885-8625-2
Date Collected: 07/23/24 09:45
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 13:51
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 13:51
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 11:45
Total/NA	Prep	300_Prep			9308	RC	EET ALB	07/27/24 08:50
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 18:00

Client Sample ID: BH24-72 4.0'
Lab Sample ID: 885-8625-3
Date Collected: 07/23/24 09:50
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 15:02
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 15:02
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 11:58
Total/NA	Prep	300_Prep			9308	RC	EET ALB	07/27/24 08:50
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 18:12

Client Sample ID: BH24-73 0.0'
Lab Sample ID: 885-8625-4
Date Collected: 07/23/24 10:00
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 16:13

Lab Chronicle

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-73 0.0'
Lab Sample ID: 885-8625-4
Date Collected: 07/23/24 10:00
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 16:13
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 12:10
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 18:24

Client Sample ID: BH24-73 2.0'
Lab Sample ID: 885-8625-5
Date Collected: 07/23/24 10:05
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 16:37
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 16:37
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 12:23
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 18:37

Client Sample ID: BH24-73 4.0'
Lab Sample ID: 885-8625-6
Date Collected: 07/23/24 10:10
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 17:01
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 17:01
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 12:36
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 19:14

Client Sample ID: BH24-74 0.0'
Lab Sample ID: 885-8625-7
Date Collected: 07/23/24 10:15
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 17:24
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 17:24

Lab Chronicle

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-74 0.0'
Lab Sample ID: 885-8625-7
Date Collected: 07/23/24 10:15
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 12:49
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 19:51

Client Sample ID: BH24-74 2.0'
Lab Sample ID: 885-8625-8
Date Collected: 07/23/24 10:20
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 17:48
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 17:48
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 13:02
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 20:03

Client Sample ID: BH24-74 4.0'
Lab Sample ID: 885-8625-9
Date Collected: 07/23/24 10:25
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 18:12
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 18:12
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 13:15
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 20:40

Client Sample ID: BH24-75 0.0'
Lab Sample ID: 885-8625-10
Date Collected: 07/23/24 10:40
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 18:59
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 18:59
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 13:28

Lab Chronicle

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-75 0.0'
Lab Sample ID: 885-8625-10
Date Collected: 07/23/24 10:40
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 20:53

Client Sample ID: BH24-75 2.0'
Lab Sample ID: 885-8625-11
Date Collected: 07/23/24 10:45
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 19:23
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 19:23
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 13:41
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 21:05

Client Sample ID: BH24-75 4.0'
Lab Sample ID: 885-8625-12
Date Collected: 07/23/24 10:50
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 19:46
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 19:46
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 14:07
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 21:42

Client Sample ID: BH24-76 0.0'
Lab Sample ID: 885-8625-13
Date Collected: 07/23/24 11:10
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 20:10
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 20:10
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 14:20
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 21:54

Lab Chronicle

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-76 2.0'
Lab Sample ID: 885-8625-14
Date Collected: 07/23/24 11:15
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 20:33
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 20:33
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 14:33
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 22:07

Client Sample ID: BH24-76 4.0'
Lab Sample ID: 885-8625-15
Date Collected: 07/23/24 11:20
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 20:57
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 20:57
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 14:46
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 22:19

Client Sample ID: BH24-77 0.0'
Lab Sample ID: 885-8625-16
Date Collected: 07/23/24 11:25
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 21:20
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 21:20
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 14:59
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 22:31

Client Sample ID: BH24-77 2.0'
Lab Sample ID: 885-8625-17
Date Collected: 07/23/24 11:30
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 21:44

Lab Chronicle

Client: Vertex
Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-77 2.0'
Lab Sample ID: 885-8625-17

Date Collected: 07/23/24 11:30
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 21:44
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 15:12
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 22:44

Client Sample ID: BH24-77 4.0'
Lab Sample ID: 885-8625-18

Date Collected: 07/23/24 11:35
Matrix: Solid
Date Received: 07/25/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 22:07
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 22:07
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 15:25
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 22:56

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8625-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No Yes

# of Coolers: 1

Cooler Temp(including CF): 2.4 ± 0 = 2.4 (°C)

HALL EI ANALYS
www.hallenv
4901 Hawkins NE - Alb
Tel. 505-345-3975 F

Analy

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4
7.23.24	0940	Soil	BH24-72 0.0'	4 oz	ICE	1							
	0945		BH24-72 2.0'			2							
	0950		BH24-72 4.0'			3							
	1000		BH24-73 0.0'			4							
	1005		BH24-73 2.0'			5							
	1010		BH24-73 4.0'			6							
	1015		BH24-74 0.0'			7							
	1020		BH24-74 2.0'			8							
	1025		BH24-74 4.0'			9							
	1040		BH24-75 0.0'			10							
	1045		BH24-75 2.0'			11							
↓	1050	↓	BH24-75 4.0'	↓	↓	12	↓	↓					↓

Date: Time: Relinquished by: Received by: Via: Date: Remarks: Direct bill to

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 2.4 ± 0 = 2.4 (°C)

HALL EN ANALYS
www.hallenvi
4901 Hawkins NE - Alb
Tel. 505-345-3975 F

Analy

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4
7.23.24	1110	Soil	BH24-76 0.0'	4oz	ICE	13							
	1115		BH24-76 2.0'			14							
	1120		BH24-76 4.0'			15							
	1125		BH24-77 0.0'			16							
	1130		BH24-77 2.0'			17							
↓	1135	↓	BH24-77 4.0'	↓	↓	18	↓	↓					↓

Date: Time: Relinquished by: Received by: Via: Date Remarks: Direct Bill to

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8625-1

Login Number: 8625 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 8/5/2024 12:39:33 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-8703-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
8/5/2024 12:39:33 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-8703-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 21
QC Association Summary 27
Lab Chronicle 31
Certification Summary 36
Chain of Custody 37
Receipt Checklists 40

Definitions/Glossary

Client: Vertex Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-8703-1
Project: Dawson Creek State #2

Job ID: 885-8703-1 **Eurofins Albuquerque**

Job Narrative
885-8703-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/26/2024 7:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following CCV is outside the upper control limit: (CCV 885-9363/15). All samples with failing high surrogate will be re-ran. No samples affected.

Method 8015D_DRO: Surrogate recovery for the following CCV is outside the lower control limit: (CCV 885-9333/40). All samples that have failing low surrogate will be re-ran. No samples affected.

Method 8015D_DRO: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) sample: (885-8703-A-3-C MS). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported. Surrogate failure likely due to matrix effects.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-78 0.0'
Date Collected: 07/24/24 09:55
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 11:03	07/29/24 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/26/24 11:03*	*07/29/24 22:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/29/24 22:31	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 22:31	1
Toluene	ND		0.047		mg/Kg		07/26/24 11:03	07/29/24 22:31	1
Xylenes, Total	ND		0.094		mg/Kg		07/26/24 11:03	07/29/24 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/26/24 11:03*	*07/29/24 22:31*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/26/24 14:53	07/29/24 15:38	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/26/24 14:53	07/29/24 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*07/26/24 14:53*	*07/29/24 15:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1200**		59		mg/Kg		07/27/24 10:01	07/27/24 23:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-78 2.0'

Date Collected: 07/24/24 10:00
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		07/26/24 11:03	07/29/24 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/26/24 11:03*	*07/29/24 23:41*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		07/26/24 11:03	07/29/24 23:41	1
Ethylbenzene	ND		0.046		mg/Kg		07/26/24 11:03	07/29/24 23:41	1
Toluene	ND		0.046		mg/Kg		07/26/24 11:03	07/29/24 23:41	1
Xylenes, Total	ND		0.092		mg/Kg		07/26/24 11:03	07/29/24 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*07/26/24 11:03*	*07/29/24 23:41*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		07/26/24 14:53	07/29/24 15:52	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/26/24 14:53	07/29/24 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*69*		*62 - 134*	*07/26/24 14:53*	*07/29/24 15:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/27/24 10:01	07/27/24 23:21	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-78 4.0'

Date Collected: 07/24/24 10:05
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 11:03	07/30/24 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/26/24 11:03*	*07/30/24 00:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 11:03	07/30/24 00:05	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 11:03	07/30/24 00:05	1
Toluene	ND		0.048		mg/Kg		07/26/24 11:03	07/30/24 00:05	1
Xylenes, Total	ND		0.097		mg/Kg		07/26/24 11:03	07/30/24 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/26/24 11:03*	*07/30/24 00:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/26/24 14:53	07/29/24 16:05	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		07/26/24 14:53	07/29/24 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*70*		*62 - 134*	*07/26/24 14:53*	*07/29/24 16:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**140**		60		mg/Kg		07/27/24 10:01	07/27/24 23:33	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-79 0.0'

Date Collected: 07/24/24 10:15
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 12:09	07/29/24 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/26/24 12:09*	*07/29/24 20:41*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/29/24 20:41	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 12:09	07/29/24 20:41	1
Toluene	ND		0.047		mg/Kg		07/26/24 12:09	07/29/24 20:41	1
Xylenes, Total	ND		0.094		mg/Kg		07/26/24 12:09	07/29/24 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/26/24 12:09*	*07/29/24 20:41*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.5		mg/Kg		07/29/24 10:12	07/29/24 15:19	1
Motor Oil Range Organics [C28-C40]	ND		43		mg/Kg		07/29/24 10:12	07/29/24 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*07/29/24 10:12*	*07/29/24 15:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66**		60		mg/Kg		07/29/24 09:58	07/29/24 20:08	20

Client Sample Results

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-79 2.0'
Lab Sample ID: 885-8703-5
Date Collected: 07/24/24 10:20
Matrix: Solid
Date Received: 07/26/24 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 12:09	07/29/24 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*07/26/24 12:09*	*07/29/24 21:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 12:09	07/29/24 21:03	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 12:09	07/29/24 21:03	1
Toluene	ND		0.049		mg/Kg		07/26/24 12:09	07/29/24 21:03	1
Xylenes, Total	ND		0.099		mg/Kg		07/26/24 12:09	07/29/24 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/26/24 12:09*	*07/29/24 21:03*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/29/24 10:12	07/29/24 15:41	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/29/24 10:12	07/29/24 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*07/29/24 10:12*	*07/29/24 15:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90**		60		mg/Kg		07/29/24 09:58	07/29/24 20:21	20

Client Sample Results

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-79 4.0'
Lab Sample ID: 885-8703-6
Date Collected: 07/24/24 10:30
Matrix: Solid
Date Received: 07/26/24 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 12:09	07/29/24 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/26/24 12:09*	*07/29/24 21:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/29/24 21:25	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 12:09	07/29/24 21:25	1
Toluene	ND		0.047		mg/Kg		07/26/24 12:09	07/29/24 21:25	1
Xylenes, Total	ND		0.095		mg/Kg		07/26/24 12:09	07/29/24 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/26/24 12:09*	*07/29/24 21:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		07/29/24 10:12	07/29/24 15:52	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/29/24 10:12	07/29/24 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*07/29/24 10:12*	*07/29/24 15:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/29/24 09:58	07/29/24 20:33	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-80 0.0'

Date Collected: 07/24/24 10:40
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 12:09	07/29/24 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/26/24 12:09*	*07/29/24 21:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/29/24 21:46	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 12:09	07/29/24 21:46	1
Toluene	ND		0.049		mg/Kg		07/26/24 12:09	07/29/24 21:46	1
Xylenes, Total	ND		0.098		mg/Kg		07/26/24 12:09	07/29/24 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/26/24 12:09*	*07/29/24 21:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/29/24 10:12	07/29/24 16:03	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/29/24 10:12	07/29/24 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*07/29/24 10:12*	*07/29/24 16:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**470**		60		mg/Kg		07/29/24 09:58	07/29/24 20:45	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-80 2.0'

Date Collected: 07/24/24 10:45
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 12:09	07/29/24 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*07/26/24 12:09*	*07/29/24 22:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 12:09	07/29/24 22:08	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 12:09	07/29/24 22:08	1
Toluene	ND		0.049		mg/Kg		07/26/24 12:09	07/29/24 22:08	1
Xylenes, Total	ND		0.099		mg/Kg		07/26/24 12:09	07/29/24 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/26/24 12:09*	*07/29/24 22:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		07/29/24 10:12	07/29/24 16:14	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		07/29/24 10:12	07/29/24 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*07/29/24 10:12*	*07/29/24 16:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/29/24 09:58	07/29/24 20:58	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-80 4.0'

Date Collected: 07/24/24 10:50
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 12:09	07/29/24 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/26/24 12:09*	*07/29/24 22:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/29/24 22:52	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 12:09	07/29/24 22:52	1
Toluene	ND		0.048		mg/Kg		07/26/24 12:09	07/29/24 22:52	1
Xylenes, Total	ND		0.096		mg/Kg		07/26/24 12:09	07/29/24 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/26/24 12:09*	*07/29/24 22:52*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/29/24 10:12	07/29/24 16:25	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/29/24 10:12	07/29/24 16:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*07/29/24 10:12*	*07/29/24 16:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/29/24 09:58	07/29/24 21:10	20

Client Sample Results

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-81 0.0'
Lab Sample ID: 885-8703-10
Date Collected: 07/24/24 11:10
Matrix: Solid
Date Received: 07/26/24 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/26/24 12:09	07/29/24 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*07/26/24 12:09*	*07/29/24 23:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/29/24 23:13	1
Ethylbenzene	ND		0.047		mg/Kg		07/26/24 12:09	07/29/24 23:13	1
Toluene	ND		0.047		mg/Kg		07/26/24 12:09	07/29/24 23:13	1
Xylenes, Total	ND		0.095		mg/Kg		07/26/24 12:09	07/29/24 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/26/24 12:09*	*07/29/24 23:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		07/29/24 10:12	07/29/24 16:36	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		07/29/24 10:12	07/29/24 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/29/24 10:12*	*07/29/24 16:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3200**		150		mg/Kg		07/29/24 09:58	07/30/24 09:34	50

Client Sample Results

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-81 2.0'
Lab Sample ID: 885-8703-11
Date Collected: 07/24/24 11:15
Matrix: Solid
Date Received: 07/26/24 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 12:09	07/29/24 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*07/26/24 12:09*	*07/29/24 23:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/29/24 23:35	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 12:09	07/29/24 23:35	1
Toluene	ND		0.048		mg/Kg		07/26/24 12:09	07/29/24 23:35	1
Xylenes, Total	ND		0.097		mg/Kg		07/26/24 12:09	07/29/24 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/26/24 12:09*	*07/29/24 23:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		07/29/24 10:12	07/29/24 16:47	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		07/29/24 10:12	07/29/24 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*07/29/24 10:12*	*07/29/24 16:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**64**		60		mg/Kg		07/29/24 09:58	07/29/24 21:35	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-81 4.0'

Date Collected: 07/24/24 11:20
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-12

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 12:09	07/29/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*07/26/24 12:09*	*07/29/24 23:57*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/29/24 23:57	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 12:09	07/29/24 23:57	1
Toluene	ND		0.048		mg/Kg		07/26/24 12:09	07/29/24 23:57	1
Xylenes, Total	ND		0.097		mg/Kg		07/26/24 12:09	07/29/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*07/26/24 12:09*	*07/29/24 23:57*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		07/29/24 10:12	07/29/24 16:58	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/29/24 10:12	07/29/24 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*07/29/24 10:12*	*07/29/24 16:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60**		60		mg/Kg		07/29/24 09:58	07/29/24 21:47	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Client Sample ID: BH24-82 0.0'

Date Collected: 07/24/24 11:30
Date Received: 07/26/24 07:50

Lab Sample ID: 885-8703-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		07/26/24 12:09	07/30/24 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/26/24 12:09*	*07/30/24 00:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 12:09	07/30/24 00:40	1
Ethylbenzene	ND		0.049		mg/Kg		07/26/24 12:09	07/30/24 00:40	1
Toluene	ND		0.049		mg/Kg		07/26/24 12:09	07/30/24 00:40	1
Xylenes, Total	ND		0.099		mg/Kg		07/26/24 12:09	07/30/24 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*07/26/24 12:09*	*07/30/24 00:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		07/29/24 10:12	07/29/24 17:09	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		07/29/24 10:12	07/29/24 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*112*		*62 - 134*	*07/29/24 10:12*	*07/29/24 17:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**280**		60		mg/Kg		07/29/24 09:58	07/29/24 22:24	20

Client Sample Results

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-82 2.0'
Lab Sample ID: 885-8703-14
Date Collected: 07/24/24 11:35
Matrix: Solid
Date Received: 07/26/24 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/26/24 12:09	07/30/24 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*07/26/24 12:09*	*07/30/24 01:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 12:09	07/30/24 01:02	1
Ethylbenzene	ND		0.050		mg/Kg		07/26/24 12:09	07/30/24 01:02	1
Toluene	ND		0.050		mg/Kg		07/26/24 12:09	07/30/24 01:02	1
Xylenes, Total	ND		0.10		mg/Kg		07/26/24 12:09	07/30/24 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/26/24 12:09*	*07/30/24 01:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		07/29/24 10:12	07/29/24 17:20	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		07/29/24 10:12	07/29/24 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*129*		*62 - 134*	*07/29/24 10:12*	*07/29/24 17:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2300**		60		mg/Kg		07/29/24 09:58	07/29/24 22:36	20

Client Sample Results

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-82 4.0'
Lab Sample ID: 885-8703-15
Date Collected: 07/24/24 11:40
Matrix: Solid
Date Received: 07/26/24 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		07/26/24 12:09	07/30/24 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*07/26/24 12:09*	*07/30/24 01:24*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/26/24 12:09	07/30/24 01:24	1
Ethylbenzene	ND		0.048		mg/Kg		07/26/24 12:09	07/30/24 01:24	1
Toluene	ND		0.048		mg/Kg		07/26/24 12:09	07/30/24 01:24	1
Xylenes, Total	ND		0.095		mg/Kg		07/26/24 12:09	07/30/24 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*07/26/24 12:09*	*07/30/24 01:24*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.6		mg/Kg		07/29/24 10:12	07/29/24 17:31	1
Motor Oil Range Organics [C28-C40]	ND		43		mg/Kg		07/29/24 10:12	07/29/24 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*07/29/24 10:12*	*07/29/24 17:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		60		mg/Kg		07/30/24 10:53	07/30/24 12:49	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-9270/1-A
Matrix: Solid
Analysis Batch: 9393

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9270

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/26/24 11:03	07/29/24 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*07/26/24 11:03*	*07/29/24 12:41*	*1*

Lab Sample ID: LCS 885-9270/2-A
Matrix: Solid
Analysis Batch: 9393

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9270

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.3		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-9276/1-A
Matrix: Solid
Analysis Batch: 9396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9276

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/26/24 12:09	07/29/24 17:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/26/24 12:09*	*07/29/24 17:24*	*1*

Lab Sample ID: LCS 885-9276/2-A
Matrix: Solid
Analysis Batch: 9396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9276

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.4		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*222*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-9270/1-A
Matrix: Solid
Analysis Batch: 9395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9270

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/26/24 11:03	07/29/24 12:41	1
Ethylbenzene	ND		0.050		mg/Kg		07/26/24 11:03	07/29/24 12:41	1
Toluene	ND		0.050		mg/Kg		07/26/24 11:03	07/29/24 12:41	1
Xylenes, Total	ND		0.10		mg/Kg		07/26/24 11:03	07/29/24 12:41	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-9270/1-A
Matrix: Solid
Analysis Batch: 9395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9270

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		48 - 145	07/26/24 11:03	07/29/24 12:41	1

Lab Sample ID: LCS 885-9270/3-A
Matrix: Solid
Analysis Batch: 9395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.878		mg/Kg		88	70 - 130
Ethylbenzene	1.00	0.826		mg/Kg		83	70 - 130
m,p-Xylene	2.00	1.67		mg/Kg		83	70 - 130
o-Xylene	1.00	0.814		mg/Kg		81	70 - 130
Toluene	1.00	0.824		mg/Kg		82	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		48 - 145

Lab Sample ID: MB 885-9276/1-A
Matrix: Solid
Analysis Batch: 9398

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9276

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/26/24 12:09	07/29/24 17:24	1
Ethylbenzene	ND		0.050	mg/Kg		07/26/24 12:09	07/29/24 17:24	1
Toluene	ND		0.050	mg/Kg		07/26/24 12:09	07/29/24 17:24	1
Xylenes, Total	ND		0.10	mg/Kg		07/26/24 12:09	07/29/24 17:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		48 - 145	07/26/24 12:09	07/29/24 17:24	1

Lab Sample ID: LCS 885-9276/3-A
Matrix: Solid
Analysis Batch: 9398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.886		mg/Kg		89	70 - 130
Ethylbenzene	1.00	0.904		mg/Kg		90	70 - 130
m,p-Xylene	2.00	1.80		mg/Kg		90	70 - 130
o-Xylene	1.00	0.910		mg/Kg		91	70 - 130
Toluene	1.00	0.878		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		48 - 145

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-9292/1-A
Matrix: Solid
Analysis Batch: 9333

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9292

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/26/24 14:53	07/29/24 11:19	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/26/24 14:53	07/29/24 11:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*07/26/24 14:53*	*07/29/24 11:19*	*1*

Lab Sample ID: LCS 885-9292/2-A
Matrix: Solid
Analysis Batch: 9333

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9292

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	48.5		mg/Kg		97	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*

Lab Sample ID: 885-8703-3 MS
Matrix: Solid
Analysis Batch: 9333

Client Sample ID: BH24-78 4.0'
Prep Type: Total/NA
Prep Batch: 9292

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		44.9	40.3		mg/Kg		90	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*52*	*S1-*	*62 - 134*

Lab Sample ID: 885-8703-3 MSD
Matrix: Solid
Analysis Batch: 9333

Client Sample ID: BH24-78 4.0'
Prep Type: Total/NA
Prep Batch: 9292

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		48.7	44.0		mg/Kg		90	44 - 136	9	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*71*		*62 - 134*

Lab Sample ID: MB 885-9346/1-A
Matrix: Solid
Analysis Batch: 9363

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9346

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/29/24 10:12	07/29/24 13:31	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/29/24 10:12	07/29/24 13:31	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-9346/1-A
Matrix: Solid
Analysis Batch: 9363

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9346

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	92		62 - 134	07/29/24 10:12	07/29/24 13:31	1

Lab Sample ID: LCS 885-9346/2-A
Matrix: Solid
Analysis Batch: 9363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9346

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	45.6		mg/Kg		91	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Lab Sample ID: 885-8703-15 MS
Matrix: Solid
Analysis Batch: 9363

Client Sample ID: BH24-82 4.0'
Prep Type: Total/NA
Prep Batch: 9346

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		44.9	42.2		mg/Kg		94	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	99		62 - 134

Lab Sample ID: 885-8703-15 MSD
Matrix: Solid
Analysis Batch: 9363

Client Sample ID: BH24-82 4.0'
Prep Type: Total/NA
Prep Batch: 9346

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		42.9	39.6		mg/Kg		92	44 - 136	7	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	101		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9311/1-A
Matrix: Solid
Analysis Batch: 9336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9311

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/27/24 10:01	07/27/24 12:14	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-9311/2-A
Matrix: Solid
Analysis Batch: 9336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	27.9		mg/Kg		93	90 - 110

Lab Sample ID: MB 885-9340/1-A
Matrix: Solid
Analysis Batch: 9373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9340

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		07/29/24 09:58	07/29/24 12:31	1

Lab Sample ID: LCS 885-9340/2-A
Matrix: Solid
Analysis Batch: 9373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9340

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	28.5		mg/Kg		95	90 - 110

Lab Sample ID: MB 885-9373/55
Matrix: Solid
Analysis Batch: 9373

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/Kg			07/29/24 23:13	1

Lab Sample ID: MRL 885-9373/54
Matrix: Solid
Analysis Batch: 9373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.531		mg/L		106	50 - 150

Lab Sample ID: MB 885-9408/1-A
Matrix: Solid
Analysis Batch: 9473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9408

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		07/30/24 10:53	07/30/24 12:14	1

Lab Sample ID: LCS 885-9408/2-A
Matrix: Solid
Analysis Batch: 9473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	28.4		mg/Kg		95	90 - 110

Lab Sample ID: MB 885-9486/16
Matrix: Solid
Analysis Batch: 9486

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/Kg			07/30/24 09:05	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 885-9486/15
Matrix: Solid
Analysis Batch: 9486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.524		mg/L		105	50 - 150		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

GC VOA

Prep Batch: 9270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-1	BH24-78 0.0'	Total/NA	Solid	5030C	
885-8703-2	BH24-78 2.0'	Total/NA	Solid	5030C	
885-8703-3	BH24-78 4.0'	Total/NA	Solid	5030C	
MB 885-9270/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9270/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9270/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 9276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-4	BH24-79 0.0'	Total/NA	Solid	5030C	
885-8703-5	BH24-79 2.0'	Total/NA	Solid	5030C	
885-8703-6	BH24-79 4.0'	Total/NA	Solid	5030C	
885-8703-7	BH24-80 0.0'	Total/NA	Solid	5030C	
885-8703-8	BH24-80 2.0'	Total/NA	Solid	5030C	
885-8703-9	BH24-80 4.0'	Total/NA	Solid	5030C	
885-8703-10	BH24-81 0.0'	Total/NA	Solid	5030C	
885-8703-11	BH24-81 2.0'	Total/NA	Solid	5030C	
885-8703-12	BH24-81 4.0'	Total/NA	Solid	5030C	
885-8703-13	BH24-82 0.0'	Total/NA	Solid	5030C	
885-8703-14	BH24-82 2.0'	Total/NA	Solid	5030C	
885-8703-15	BH24-82 4.0'	Total/NA	Solid	5030C	
MB 885-9276/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9276/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9276/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 9393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-1	BH24-78 0.0'	Total/NA	Solid	8015M/D	9270
885-8703-2	BH24-78 2.0'	Total/NA	Solid	8015M/D	9270
885-8703-3	BH24-78 4.0'	Total/NA	Solid	8015M/D	9270
MB 885-9270/1-A	Method Blank	Total/NA	Solid	8015M/D	9270
LCS 885-9270/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9270

Analysis Batch: 9395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-1	BH24-78 0.0'	Total/NA	Solid	8021B	9270
885-8703-2	BH24-78 2.0'	Total/NA	Solid	8021B	9270
885-8703-3	BH24-78 4.0'	Total/NA	Solid	8021B	9270
MB 885-9270/1-A	Method Blank	Total/NA	Solid	8021B	9270
LCS 885-9270/3-A	Lab Control Sample	Total/NA	Solid	8021B	9270

Analysis Batch: 9396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-4	BH24-79 0.0'	Total/NA	Solid	8015M/D	9276
885-8703-5	BH24-79 2.0'	Total/NA	Solid	8015M/D	9276
885-8703-6	BH24-79 4.0'	Total/NA	Solid	8015M/D	9276
885-8703-7	BH24-80 0.0'	Total/NA	Solid	8015M/D	9276
885-8703-8	BH24-80 2.0'	Total/NA	Solid	8015M/D	9276
885-8703-9	BH24-80 4.0'	Total/NA	Solid	8015M/D	9276
885-8703-10	BH24-81 0.0'	Total/NA	Solid	8015M/D	9276
885-8703-11	BH24-81 2.0'	Total/NA	Solid	8015M/D	9276

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

GC VOA (Continued)

Analysis Batch: 9396 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-12	BH24-81 4.0'	Total/NA	Solid	8015M/D	9276
885-8703-13	BH24-82 0.0'	Total/NA	Solid	8015M/D	9276
885-8703-14	BH24-82 2.0'	Total/NA	Solid	8015M/D	9276
885-8703-15	BH24-82 4.0'	Total/NA	Solid	8015M/D	9276
MB 885-9276/1-A	Method Blank	Total/NA	Solid	8015M/D	9276
LCS 885-9276/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9276

Analysis Batch: 9398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-4	BH24-79 0.0'	Total/NA	Solid	8021B	9276
885-8703-5	BH24-79 2.0'	Total/NA	Solid	8021B	9276
885-8703-6	BH24-79 4.0'	Total/NA	Solid	8021B	9276
885-8703-7	BH24-80 0.0'	Total/NA	Solid	8021B	9276
885-8703-8	BH24-80 2.0'	Total/NA	Solid	8021B	9276
885-8703-9	BH24-80 4.0'	Total/NA	Solid	8021B	9276
885-8703-10	BH24-81 0.0'	Total/NA	Solid	8021B	9276
885-8703-11	BH24-81 2.0'	Total/NA	Solid	8021B	9276
885-8703-12	BH24-81 4.0'	Total/NA	Solid	8021B	9276
885-8703-13	BH24-82 0.0'	Total/NA	Solid	8021B	9276
885-8703-14	BH24-82 2.0'	Total/NA	Solid	8021B	9276
885-8703-15	BH24-82 4.0'	Total/NA	Solid	8021B	9276
MB 885-9276/1-A	Method Blank	Total/NA	Solid	8021B	9276
LCS 885-9276/3-A	Lab Control Sample	Total/NA	Solid	8021B	9276

GC Semi VOA

Prep Batch: 9292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-1	BH24-78 0.0'	Total/NA	Solid	SHAKE	
885-8703-2	BH24-78 2.0'	Total/NA	Solid	SHAKE	
885-8703-3	BH24-78 4.0'	Total/NA	Solid	SHAKE	
MB 885-9292/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9292/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8703-3 MS	BH24-78 4.0'	Total/NA	Solid	SHAKE	
885-8703-3 MSD	BH24-78 4.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 9333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-1	BH24-78 0.0'	Total/NA	Solid	8015M/D	9292
885-8703-2	BH24-78 2.0'	Total/NA	Solid	8015M/D	9292
885-8703-3	BH24-78 4.0'	Total/NA	Solid	8015M/D	9292
MB 885-9292/1-A	Method Blank	Total/NA	Solid	8015M/D	9292
LCS 885-9292/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9292
885-8703-3 MS	BH24-78 4.0'	Total/NA	Solid	8015M/D	9292
885-8703-3 MSD	BH24-78 4.0'	Total/NA	Solid	8015M/D	9292

Prep Batch: 9346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-4	BH24-79 0.0'	Total/NA	Solid	SHAKE	
885-8703-5	BH24-79 2.0'	Total/NA	Solid	SHAKE	
885-8703-6	BH24-79 4.0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

GC Semi VOA (Continued)

Prep Batch: 9346 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-7	BH24-80 0.0'	Total/NA	Solid	SHAKE	
885-8703-8	BH24-80 2.0'	Total/NA	Solid	SHAKE	
885-8703-9	BH24-80 4.0'	Total/NA	Solid	SHAKE	
885-8703-10	BH24-81 0.0'	Total/NA	Solid	SHAKE	
885-8703-11	BH24-81 2.0'	Total/NA	Solid	SHAKE	
885-8703-12	BH24-81 4.0'	Total/NA	Solid	SHAKE	
885-8703-13	BH24-82 0.0'	Total/NA	Solid	SHAKE	
885-8703-14	BH24-82 2.0'	Total/NA	Solid	SHAKE	
885-8703-15	BH24-82 4.0'	Total/NA	Solid	SHAKE	
MB 885-9346/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9346/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-8703-15 MS	BH24-82 4.0'	Total/NA	Solid	SHAKE	
885-8703-15 MSD	BH24-82 4.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 9363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-4	BH24-79 0.0'	Total/NA	Solid	8015M/D	9346
885-8703-5	BH24-79 2.0'	Total/NA	Solid	8015M/D	9346
885-8703-6	BH24-79 4.0'	Total/NA	Solid	8015M/D	9346
885-8703-7	BH24-80 0.0'	Total/NA	Solid	8015M/D	9346
885-8703-8	BH24-80 2.0'	Total/NA	Solid	8015M/D	9346
885-8703-9	BH24-80 4.0'	Total/NA	Solid	8015M/D	9346
885-8703-10	BH24-81 0.0'	Total/NA	Solid	8015M/D	9346
885-8703-11	BH24-81 2.0'	Total/NA	Solid	8015M/D	9346
885-8703-12	BH24-81 4.0'	Total/NA	Solid	8015M/D	9346
885-8703-13	BH24-82 0.0'	Total/NA	Solid	8015M/D	9346
885-8703-14	BH24-82 2.0'	Total/NA	Solid	8015M/D	9346
885-8703-15	BH24-82 4.0'	Total/NA	Solid	8015M/D	9346
MB 885-9346/1-A	Method Blank	Total/NA	Solid	8015M/D	9346
LCS 885-9346/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9346
885-8703-15 MS	BH24-82 4.0'	Total/NA	Solid	8015M/D	9346
885-8703-15 MSD	BH24-82 4.0'	Total/NA	Solid	8015M/D	9346

HPLC/IC

Prep Batch: 9311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-1	BH24-78 0.0'	Total/NA	Solid	300_Prep	
885-8703-2	BH24-78 2.0'	Total/NA	Solid	300_Prep	
885-8703-3	BH24-78 4.0'	Total/NA	Solid	300_Prep	
MB 885-9311/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9311/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-1	BH24-78 0.0'	Total/NA	Solid	300.0	9311
885-8703-2	BH24-78 2.0'	Total/NA	Solid	300.0	9311
885-8703-3	BH24-78 4.0'	Total/NA	Solid	300.0	9311
MB 885-9311/1-A	Method Blank	Total/NA	Solid	300.0	9311
LCS 885-9311/2-A	Lab Control Sample	Total/NA	Solid	300.0	9311

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-8703-1

HPLC/IC

Prep Batch: 9340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-4	BH24-79 0.0'	Total/NA	Solid	300_Prep	
885-8703-5	BH24-79 2.0'	Total/NA	Solid	300_Prep	
885-8703-6	BH24-79 4.0'	Total/NA	Solid	300_Prep	
885-8703-7	BH24-80 0.0'	Total/NA	Solid	300_Prep	
885-8703-8	BH24-80 2.0'	Total/NA	Solid	300_Prep	
885-8703-9	BH24-80 4.0'	Total/NA	Solid	300_Prep	
885-8703-10	BH24-81 0.0'	Total/NA	Solid	300_Prep	
885-8703-11	BH24-81 2.0'	Total/NA	Solid	300_Prep	
885-8703-12	BH24-81 4.0'	Total/NA	Solid	300_Prep	
885-8703-13	BH24-82 0.0'	Total/NA	Solid	300_Prep	
885-8703-14	BH24-82 2.0'	Total/NA	Solid	300_Prep	
MB 885-9340/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9340/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-4	BH24-79 0.0'	Total/NA	Solid	300.0	9340
885-8703-5	BH24-79 2.0'	Total/NA	Solid	300.0	9340
885-8703-6	BH24-79 4.0'	Total/NA	Solid	300.0	9340
885-8703-7	BH24-80 0.0'	Total/NA	Solid	300.0	9340
885-8703-8	BH24-80 2.0'	Total/NA	Solid	300.0	9340
885-8703-9	BH24-80 4.0'	Total/NA	Solid	300.0	9340
885-8703-11	BH24-81 2.0'	Total/NA	Solid	300.0	9340
885-8703-12	BH24-81 4.0'	Total/NA	Solid	300.0	9340
885-8703-13	BH24-82 0.0'	Total/NA	Solid	300.0	9340
885-8703-14	BH24-82 2.0'	Total/NA	Solid	300.0	9340
MB 885-9340/1-A	Method Blank	Total/NA	Solid	300.0	9340
MB 885-9373/55	Method Blank	Total/NA	Solid	300.0	
LCS 885-9340/2-A	Lab Control Sample	Total/NA	Solid	300.0	9340
MRL 885-9373/54	Lab Control Sample	Total/NA	Solid	300.0	

Prep Batch: 9408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-15	BH24-82 4.0'	Total/NA	Solid	300_Prep	
MB 885-9408/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9408/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-15	BH24-82 4.0'	Total/NA	Solid	300.0	9408
MB 885-9408/1-A	Method Blank	Total/NA	Solid	300.0	9408
LCS 885-9408/2-A	Lab Control Sample	Total/NA	Solid	300.0	9408

Analysis Batch: 9486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8703-10	BH24-81 0.0'	Total/NA	Solid	300.0	9340
MB 885-9486/16	Method Blank	Total/NA	Solid	300.0	
MRL 885-9486/15	Lab Control Sample	Total/NA	Solid	300.0	

Lab Chronicle

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-78 0.0'
Lab Sample ID: 885-8703-1
Date Collected: 07/24/24 09:55
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 22:31
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 22:31
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 15:38
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 23:08

Client Sample ID: BH24-78 2.0'
Lab Sample ID: 885-8703-2
Date Collected: 07/24/24 10:00
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/29/24 23:41
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/29/24 23:41
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 15:52
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 23:21

Client Sample ID: BH24-78 4.0'
Lab Sample ID: 885-8703-3
Date Collected: 07/24/24 10:05
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8015M/D		1	9393	JP	EET ALB	07/30/24 00:05
Total/NA	Prep	5030C			9270	JP	EET ALB	07/26/24 11:03
Total/NA	Analysis	8021B		1	9395	JP	EET ALB	07/30/24 00:05
Total/NA	Prep	SHAKE			9292	KR	EET ALB	07/26/24 14:53
Total/NA	Analysis	8015M/D		1	9333	KR	EET ALB	07/29/24 16:05
Total/NA	Prep	300_Prep			9311	RC	EET ALB	07/27/24 10:01
Total/NA	Analysis	300.0		20	9336	JT	EET ALB	07/27/24 23:33

Client Sample ID: BH24-79 0.0'
Lab Sample ID: 885-8703-4
Date Collected: 07/24/24 10:15
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 20:41

Lab Chronicle

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-79 0.0'
Lab Sample ID: 885-8703-4
Date Collected: 07/24/24 10:15
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 20:41
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 15:19
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 20:08

Client Sample ID: BH24-79 2.0'
Lab Sample ID: 885-8703-5
Date Collected: 07/24/24 10:20
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 21:03
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 21:03
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 15:41
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 20:21

Client Sample ID: BH24-79 4.0'
Lab Sample ID: 885-8703-6
Date Collected: 07/24/24 10:30
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 21:25
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 21:25
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 15:52
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 20:33

Client Sample ID: BH24-80 0.0'
Lab Sample ID: 885-8703-7
Date Collected: 07/24/24 10:40
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 21:46
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 21:46

Lab Chronicle

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-80 0.0'
Lab Sample ID: 885-8703-7
Date Collected: 07/24/24 10:40
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 16:03
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 20:45

Client Sample ID: BH24-80 2.0'
Lab Sample ID: 885-8703-8
Date Collected: 07/24/24 10:45
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 22:08
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 22:08
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 16:14
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 20:58

Client Sample ID: BH24-80 4.0'
Lab Sample ID: 885-8703-9
Date Collected: 07/24/24 10:50
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 22:52
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 22:52
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 16:25
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 21:10

Client Sample ID: BH24-81 0.0'
Lab Sample ID: 885-8703-10
Date Collected: 07/24/24 11:10
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 23:13
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 23:13
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 16:36

Lab Chronicle

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-81 0.0'
Lab Sample ID: 885-8703-10
Date Collected: 07/24/24 11:10
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		50	9486	JT	EET ALB	07/30/24 09:34

Client Sample ID: BH24-81 2.0'
Lab Sample ID: 885-8703-11
Date Collected: 07/24/24 11:15
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 23:35
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 23:35
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 16:47
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 21:35

Client Sample ID: BH24-81 4.0'
Lab Sample ID: 885-8703-12
Date Collected: 07/24/24 11:20
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/29/24 23:57
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/29/24 23:57
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 16:58
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 21:47

Client Sample ID: BH24-82 0.0'
Lab Sample ID: 885-8703-13
Date Collected: 07/24/24 11:30
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/30/24 00:40
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/30/24 00:40
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 17:09
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 22:24

Lab Chronicle

Client: Vertex
Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-82 2.0'
Lab Sample ID: 885-8703-14
Date Collected: 07/24/24 11:35
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/30/24 01:02
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/30/24 01:02
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 17:20
Total/NA	Prep	300_Prep			9340	JT	EET ALB	07/29/24 09:58
Total/NA	Analysis	300.0		20	9373	JT	EET ALB	07/29/24 22:36

Client Sample ID: BH24-82 4.0'
Lab Sample ID: 885-8703-15
Date Collected: 07/24/24 11:40
Matrix: Solid
Date Received: 07/26/24 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8015M/D		1	9396	AT	EET ALB	07/30/24 01:24
Total/NA	Prep	5030C			9276	JP	EET ALB	07/26/24 12:09
Total/NA	Analysis	8021B		1	9398	AT	EET ALB	07/30/24 01:24
Total/NA	Prep	SHAKE			9346	DH	EET ALB	07/29/24 10:12
Total/NA	Analysis	8015M/D		1	9363	KR	EET ALB	07/29/24 17:31
Total/NA	Prep	300_Prep			9408	EH	EET ALB	07/30/24 10:53
Total/NA	Analysis	300.0		20	9473	RC	EET ALB	07/30/24 12:49

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-8703-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr, Carlsbad, NM 88220

Phone #: On File

email or Fax#:

QA/QC Package.
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☑ Yes ☐ No

# of Coolers: 1 yoga

Cooler Temp(including CF): 1.0-0.1=0.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109 885-8703 COC
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No.
7.24.24	0955	soil	BH24-78	0.0'	4oz	ICE	1
	1000		BH24-78	2.0'			2
	1005		BH24-78	4.0'			3
	1015		BH24-79	0.0'			4
	1020		BH24-79	2.0'			5
	1030		BH24-79	4.0'			6
	1040		BH24-80	0.0'			7
	1045		BH24-80	2.0'			8
	1050		BH24-80	4.0'			9
	1110		BH24-81	0.0'			10
	1115		BH24-81	2.0'			11
	1120		BH24-81	4.0'			12

BTEX / MTBE / TMB's (8021) — TPH:8015D(GRO / DRO / MRO) — 8081 Pesticides/8082 PCB's — EDB (Method 504.1) — PAHs by 8310 or 8270SIMS — RCRA 8 Metals — Cl, F, Br, NO_3, NO_2, PO_4, SO_4 — 8260 (VOA) — 8270 (Semi-VOA) — Total Coliform (Present/Absent)

Date	Time	Relinquished by:	Received by	Via	Date	Time
7/15/24	1130				7/25/24	1130
7/15/24	1900			courier	7/26/24	7:50

Remarks: Direct bill to Mack Energy
cc: SCarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: on File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☐ Yes ☐ No

# of Coolers: 1 4oz

Cooler Temp (including CF): 1.0-0.1=0.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.24.24	1130	Soil	BH24-82 0.0'	4oz	ICE	13										
↓	1135	↓	BH24-82 2.0'	↓	↓	14										
↓	1140	↓	BH24-82 4.0'	↓	↓	15										

Date	Time	Relinquished by	Received by	Via	Date	Time
7/25/24	1130				7/25/24	1130
7/25/24	1900			courier	7/26/24	7:50

Remarks: Direct bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@vertex.ca.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Bill to Mack Energy)

Mailing Address: On file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 72-hour

Project Name: Owl State #1

Project #: 23E-05504

Project Manager: Sally Carttar

Sampler: SM

On Ice: ☑ Yes ☐ No

# of Coolers: 1 Yoai

Cooler Temp(including CF): 1.0-0.1=0.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORA

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

885 8702 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Anions (F, Br, NO_3, NO_2, PO_4, SO_4)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7/24/24	8:20	Soil	WES24-03	4oz jar	Ice	1	✓	✓					✓			
↓	9:40	↓	WES24-09	↓	↓	2	↓	↓					↓			
↓	9:45	↓	WES24-10	↓	↓	3	↓	↓					↓			

Date	Time	Relinquished by	Received by	Via	Date	Time
7/25/24	1130	Stephen McCall	CCummings		7/25/24	1130
7/25/24	1900	CCummings		Courier	7/26/24	7:15

Remarks: Attn: Matt Buckles (Mack Energy)
Direct bill to Mack
c.c. Sally Carttar @ scarttar@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-8703-1

Login Number: 8703 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 8/8/2024 3:59:16 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-9080-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
8/8/2024 3:59:16 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-9080-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 24
QC Association Summary 29
Lab Chronicle 34
Certification Summary 40
Chain of Custody 41
Receipt Checklists 43

Definitions/Glossary

Client: Vertex Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-9080-1
Project: Dawson Creek State #2

Job ID: 885-9080-1 Eurofins Albuquerque

Job Narrative
885-9080-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 8/2/2024 7:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-83 0.0'

Date Collected: 07/26/24 09:15
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/02/24 11:52	08/06/24 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*08/02/24 11:52*	*08/06/24 13:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/06/24 13:13	1
Ethylbenzene	ND		0.050		mg/Kg		08/02/24 11:52	08/06/24 13:13	1
Toluene	ND		0.050		mg/Kg		08/02/24 11:52	08/06/24 13:13	1
Xylenes, Total	ND		0.099		mg/Kg		08/02/24 11:52	08/06/24 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*08/02/24 11:52*	*08/06/24 13:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		08/05/24 08:35	08/05/24 18:22	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		08/05/24 08:35	08/05/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*08/05/24 08:35*	*08/05/24 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16000**		1500		mg/Kg		08/05/24 11:47	08/06/24 21:44	500

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-83 2.0'

Date Collected: 07/26/24 09:20
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/02/24 11:52	08/06/24 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*08/02/24 11:52*	*08/06/24 14:19*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/06/24 14:19	1
Ethylbenzene	ND		0.050		mg/Kg		08/02/24 11:52	08/06/24 14:19	1
Toluene	ND		0.050		mg/Kg		08/02/24 11:52	08/06/24 14:19	1
Xylenes, Total	ND		0.10		mg/Kg		08/02/24 11:52	08/06/24 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*08/02/24 11:52*	*08/06/24 14:19*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		08/05/24 08:35	08/05/24 18:36	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		08/05/24 08:35	08/05/24 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*08/05/24 08:35*	*08/05/24 18:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72**		60		mg/Kg		08/05/24 11:47	08/05/24 15:09	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-83 4.0'

Date Collected: 07/26/24 09:25
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/02/24 11:52	08/06/24 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*08/02/24 11:52*	*08/06/24 15:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/06/24 15:25	1
Ethylbenzene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 15:25	1
Toluene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 15:25	1
Xylenes, Total	ND		0.095		mg/Kg		08/02/24 11:52	08/06/24 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*08/02/24 11:52*	*08/06/24 15:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		08/05/24 08:35	08/05/24 18:49	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		08/05/24 08:35	08/05/24 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*08/05/24 08:35*	*08/05/24 18:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		08/05/24 11:47	08/05/24 15:22	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-84 0.0'

Date Collected: 07/26/24 09:35
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		08/02/24 11:52	08/06/24 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*08/02/24 11:52*	*08/06/24 15:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/06/24 15:47	1
Ethylbenzene	ND		0.047		mg/Kg		08/02/24 11:52	08/06/24 15:47	1
Toluene	ND		0.047		mg/Kg		08/02/24 11:52	08/06/24 15:47	1
Xylenes, Total	ND		0.095		mg/Kg		08/02/24 11:52	08/06/24 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*08/02/24 11:52*	*08/06/24 15:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**24**		9.8		mg/Kg		08/05/24 08:35	08/05/24 19:03	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		08/05/24 08:35	08/05/24 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*08/05/24 08:35*	*08/05/24 19:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**		150		mg/Kg		08/05/24 11:47	08/06/24 13:17	50

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-84 2.0'

Date Collected: 07/26/24 09:40
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/02/24 11:52	08/06/24 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*08/02/24 11:52*	*08/06/24 16:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/06/24 16:09	1
Ethylbenzene	ND		0.049		mg/Kg		08/02/24 11:52	08/06/24 16:09	1
Toluene	ND		0.049		mg/Kg		08/02/24 11:52	08/06/24 16:09	1
Xylenes, Total	ND		0.099		mg/Kg		08/02/24 11:52	08/06/24 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*08/02/24 11:52*	*08/06/24 16:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		08/05/24 08:35	08/05/24 19:17	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		08/05/24 08:35	08/05/24 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*08/05/24 08:35*	*08/05/24 19:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5200**		300		mg/Kg		08/05/24 11:47	08/06/24 21:31	100

Client Sample Results

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-84 4.0'
Lab Sample ID: 885-9080-6
Date Collected: 07/26/24 09:45
Matrix: Solid
Date Received: 08/02/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/02/24 11:52	08/06/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*08/02/24 11:52*	*08/06/24 16:30*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/06/24 16:30	1
Ethylbenzene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 16:30	1
Toluene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 16:30	1
Xylenes, Total	ND		0.096		mg/Kg		08/02/24 11:52	08/06/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*08/02/24 11:52*	*08/06/24 16:30*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		08/05/24 08:35	08/05/24 19:44	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		08/05/24 08:35	08/05/24 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*08/05/24 08:35*	*08/05/24 19:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		08/05/24 11:47	08/05/24 16:01	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-85 0.0'

Date Collected: 07/26/24 10:00
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/02/24 11:52	08/06/24 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*08/02/24 11:52*	*08/06/24 16:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/06/24 16:52	1
Ethylbenzene	ND		0.049		mg/Kg		08/02/24 11:52	08/06/24 16:52	1
Toluene	ND		0.049		mg/Kg		08/02/24 11:52	08/06/24 16:52	1
Xylenes, Total	ND		0.098		mg/Kg		08/02/24 11:52	08/06/24 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*08/02/24 11:52*	*08/06/24 16:52*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		08/05/24 08:35	08/05/24 19:58	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		08/05/24 08:35	08/05/24 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*08/05/24 08:35*	*08/05/24 19:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1100**		60		mg/Kg		08/05/24 11:47	08/05/24 16:14	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-85 2.0'

Date Collected: 07/26/24 10:10
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/02/24 11:52	08/06/24 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*08/02/24 11:52*	*08/06/24 17:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/06/24 17:14	1
Ethylbenzene	ND		0.049		mg/Kg		08/02/24 11:52	08/06/24 17:14	1
Toluene	ND		0.049		mg/Kg		08/02/24 11:52	08/06/24 17:14	1
Xylenes, Total	ND		0.097		mg/Kg		08/02/24 11:52	08/06/24 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*08/02/24 11:52*	*08/06/24 17:14*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		08/05/24 08:35	08/05/24 20:12	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		08/05/24 08:35	08/05/24 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*08/05/24 08:35*	*08/05/24 20:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76**		60		mg/Kg		08/05/24 11:47	08/05/24 16:26	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-85 4.0'

Date Collected: 07/26/24 10:15
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/02/24 11:52	08/06/24 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*08/02/24 11:52*	*08/06/24 17:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/06/24 17:36	1
Ethylbenzene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 17:36	1
Toluene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 17:36	1
Xylenes, Total	ND		0.095		mg/Kg		08/02/24 11:52	08/06/24 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*08/02/24 11:52*	*08/06/24 17:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		08/05/24 08:35	08/05/24 20:25	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		08/05/24 08:35	08/05/24 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*08/05/24 08:35*	*08/05/24 20:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		08/05/24 11:47	08/05/24 16:39	20

Client Sample Results

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-86 0.0'
Lab Sample ID: 885-9080-10
Date Collected: 07/26/24 10:25
Matrix: Solid
Date Received: 08/02/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/02/24 11:52	08/06/24 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*08/02/24 11:52*	*08/06/24 17:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/06/24 17:58	1
Ethylbenzene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 17:58	1
Toluene	ND		0.048		mg/Kg		08/02/24 11:52	08/06/24 17:58	1
Xylenes, Total	ND		0.096		mg/Kg		08/02/24 11:52	08/06/24 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*08/02/24 11:52*	*08/06/24 17:58*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		08/05/24 08:35	08/05/24 20:39	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		08/05/24 08:35	08/05/24 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*08/05/24 08:35*	*08/05/24 20:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1200**		60		mg/Kg		08/05/24 11:47	08/05/24 16:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-86 2.0'

Date Collected: 07/26/24 10:30
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-11

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/02/24 11:52	08/06/24 18:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*08/02/24 11:52*	*08/06/24 18:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/07/24 22:45	1
Ethylbenzene	ND		0.049		mg/Kg		08/02/24 11:52	08/07/24 22:45	1
Toluene	ND		0.049		mg/Kg		08/02/24 11:52	08/07/24 22:45	1
Xylenes, Total	ND		0.099		mg/Kg		08/02/24 11:52	08/07/24 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*08/02/24 11:52*	*08/07/24 22:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		08/05/24 08:35	08/05/24 20:52	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		08/05/24 08:35	08/05/24 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*08/05/24 08:35*	*08/05/24 20:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4400**		150		mg/Kg		08/05/24 11:47	08/06/24 13:30	50

Client Sample Results

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-86 4.0'
Lab Sample ID: 885-9080-12
Date Collected: 07/26/24 10:35
Matrix: Solid
Date Received: 08/02/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		08/02/24 11:52	08/06/24 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*08/02/24 11:52*	*08/06/24 19:04*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/07/24 23:08	1
Ethylbenzene	ND		0.047		mg/Kg		08/02/24 11:52	08/07/24 23:08	1
Toluene	ND		0.047		mg/Kg		08/02/24 11:52	08/07/24 23:08	1
Xylenes, Total	ND		0.095		mg/Kg		08/02/24 11:52	08/07/24 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*08/02/24 11:52*	*08/07/24 23:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		08/05/24 08:35	08/05/24 21:06	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		08/05/24 08:35	08/05/24 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*08/05/24 08:35*	*08/05/24 21:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**220**		60		mg/Kg		08/05/24 11:47	08/05/24 17:44	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-87 0.0'

Date Collected: 07/26/24 10:40
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/02/24 11:52	08/06/24 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*08/02/24 11:52*	*08/06/24 19:26*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/07/24 23:32	1
Ethylbenzene	ND		0.049		mg/Kg		08/02/24 11:52	08/07/24 23:32	1
Toluene	ND		0.049		mg/Kg		08/02/24 11:52	08/07/24 23:32	1
Xylenes, Total	ND		0.098		mg/Kg		08/02/24 11:52	08/07/24 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*08/02/24 11:52*	*08/07/24 23:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		08/05/24 08:35	08/05/24 21:20	1
Motor Oil Range Organics [C28-C40]	**54**		48		mg/Kg		08/05/24 08:35	08/05/24 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*08/05/24 08:35*	*08/05/24 21:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**		60		mg/Kg		08/05/24 11:47	08/05/24 17:57	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-87 2.0'

Date Collected: 07/26/24 10:45
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-14

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/02/24 11:52	08/06/24 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*08/02/24 11:52*	*08/06/24 19:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/07/24 23:55	1
Ethylbenzene	ND		0.049		mg/Kg		08/02/24 11:52	08/07/24 23:55	1
Toluene	ND		0.049		mg/Kg		08/02/24 11:52	08/07/24 23:55	1
Xylenes, Total	ND		0.097		mg/Kg		08/02/24 11:52	08/07/24 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*08/02/24 11:52*	*08/07/24 23:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		08/05/24 08:35	08/05/24 21:34	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		08/05/24 08:35	08/05/24 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*08/05/24 08:35*	*08/05/24 21:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**270**		60		mg/Kg		08/05/24 11:47	08/05/24 18:09	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Client Sample ID: BH24-87 4.0'

Date Collected: 07/26/24 10:50
Date Received: 08/02/24 07:30

Lab Sample ID: 885-9080-15

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/02/24 11:52	08/06/24 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*08/02/24 11:52*	*08/06/24 20:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/08/24 00:19	1
Ethylbenzene	ND		0.048		mg/Kg		08/02/24 11:52	08/08/24 00:19	1
Toluene	ND		0.048		mg/Kg		08/02/24 11:52	08/08/24 00:19	1
Xylenes, Total	ND		0.096		mg/Kg		08/02/24 11:52	08/08/24 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*08/02/24 11:52*	*08/08/24 00:19*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		08/05/24 08:35	08/05/24 21:48	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		08/05/24 08:35	08/05/24 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*08/05/24 08:35*	*08/05/24 21:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		08/05/24 11:47	08/05/24 18:22	20

Client Sample Results

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-88 0.0'
Lab Sample ID: 885-9080-16
Date Collected: 07/27/24 09:00
Matrix: Solid
Date Received: 08/02/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		08/02/24 11:52	08/06/24 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*08/02/24 11:52*	*08/06/24 20:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/02/24 11:52	08/08/24 00:42	1
Ethylbenzene	ND		0.047		mg/Kg		08/02/24 11:52	08/08/24 00:42	1
Toluene	ND		0.047		mg/Kg		08/02/24 11:52	08/08/24 00:42	1
Xylenes, Total	ND		0.094		mg/Kg		08/02/24 11:52	08/08/24 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*08/02/24 11:52*	*08/08/24 00:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		08/05/24 08:35	08/05/24 22:01	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		08/05/24 08:35	08/05/24 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*08/05/24 08:35*	*08/05/24 22:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		08/05/24 11:47	08/05/24 18:35	20

Client Sample Results

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-88 2.0'
Lab Sample ID: 885-9080-17
Date Collected: 07/27/24 09:15
Matrix: Solid
Date Received: 08/02/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		08/02/24 11:52	08/06/24 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*08/02/24 11:52*	*08/06/24 20:53*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		08/02/24 11:52	08/08/24 01:05	1
Ethylbenzene	ND		0.047		mg/Kg		08/02/24 11:52	08/08/24 01:05	1
Toluene	ND		0.047		mg/Kg		08/02/24 11:52	08/08/24 01:05	1
Xylenes, Total	ND		0.093		mg/Kg		08/02/24 11:52	08/08/24 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*08/02/24 11:52*	*08/08/24 01:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		08/05/24 09:36	08/05/24 16:15	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		08/05/24 09:36	08/05/24 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*08/05/24 09:36*	*08/05/24 16:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		08/05/24 11:06	08/05/24 17:26	20

Client Sample Results

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-88 4.0'
Lab Sample ID: 885-9080-18
Date Collected: 07/27/24 09:30
Matrix: Solid
Date Received: 08/02/24 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/02/24 11:52	08/06/24 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*08/02/24 11:52*	*08/06/24 21:15*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/08/24 01:29	1
Ethylbenzene	ND		0.050		mg/Kg		08/02/24 11:52	08/08/24 01:29	1
Toluene	ND		0.050		mg/Kg		08/02/24 11:52	08/08/24 01:29	1
Xylenes, Total	ND		0.099		mg/Kg		08/02/24 11:52	08/08/24 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*08/02/24 11:52*	*08/08/24 01:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		08/05/24 09:36	08/05/24 16:26	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		08/05/24 09:36	08/05/24 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*08/05/24 09:36*	*08/05/24 16:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		08/05/24 11:06	08/05/24 17:38	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-9655/1-A
Matrix: Solid
Analysis Batch: 9858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9655

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/02/24 11:52	08/06/24 12:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*08/02/24 11:52*	*08/06/24 12:30*	*1*

Lab Sample ID: LCS 885-9655/2-A
Matrix: Solid
Analysis Batch: 9858

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9655

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	24.8		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*		*35 - 166*

Lab Sample ID: 885-9080-1 MS
Matrix: Solid
Analysis Batch: 9858

Client Sample ID: BH24-83 0.0'
Prep Type: Total/NA
Prep Batch: 9655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.9	22.8		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*		*35 - 166*

Lab Sample ID: 885-9080-1 MSD
Matrix: Solid
Analysis Batch: 9858

Client Sample ID: BH24-83 0.0'
Prep Type: Total/NA
Prep Batch: 9655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.9	27.1		mg/Kg		109	70 - 130	17	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*223*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-9655/1-A
Matrix: Solid
Analysis Batch: 9859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9655

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/06/24 12:30	1
Ethylbenzene	ND		0.050		mg/Kg		08/02/24 11:52	08/06/24 12:30	1
Toluene	ND		0.050		mg/Kg		08/02/24 11:52	08/06/24 12:30	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-9655/1-A
Matrix: Solid
Analysis Batch: 9859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9655

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		08/02/24 11:52	08/06/24 12:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*08/02/24 11:52*	*08/06/24 12:30*	*1*

Lab Sample ID: MB 885-9655/1-A
Matrix: Solid
Analysis Batch: 9891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9655

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/02/24 11:52	08/07/24 22:21	1
Ethylbenzene	ND		0.050		mg/Kg		08/02/24 11:52	08/07/24 22:21	1
Toluene	ND		0.050		mg/Kg		08/02/24 11:52	08/07/24 22:21	1
Xylenes, Total	ND		0.10		mg/Kg		08/02/24 11:52	08/07/24 22:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*08/02/24 11:52*	*08/07/24 22:21*	*1*

Lab Sample ID: LCS 885-9655/3-A
Matrix: Solid
Analysis Batch: 9859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9655

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.876		mg/Kg		88	70 - 130		
Ethylbenzene			1.00	0.865		mg/Kg		86	70 - 130		
m,p-Xylene			2.00	1.72		mg/Kg		86	70 - 130		
o-Xylene			1.00	0.850		mg/Kg		85	70 - 130		
Toluene			1.00	0.873		mg/Kg		87	70 - 130		
Xylenes, Total			3.00	2.57		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*

Lab Sample ID: LCS 885-9655/3-A
Matrix: Solid
Analysis Batch: 9891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9655

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.930		mg/Kg		93	70 - 130		
Ethylbenzene			1.00	0.846		mg/Kg		85	70 - 130		
m,p-Xylene			2.00	1.71		mg/Kg		86	70 - 130		
o-Xylene			1.00	0.823		mg/Kg		82	70 - 130		
Toluene			1.00	0.870		mg/Kg		87	70 - 130		
Xylenes, Total			3.00	2.53		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-9080-2 MS
Matrix: Solid
Analysis Batch: 9859

Client Sample ID: BH24-83 2.0'
Prep Type: Total/NA
Prep Batch: 9655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.991	0.863		mg/Kg		87	70 - 130
Ethylbenzene	ND		0.991	0.864		mg/Kg		87	70 - 130
m,p-Xylene	ND		1.98	1.70		mg/Kg		86	70 - 130
o-Xylene	ND		0.991	0.848		mg/Kg		86	70 - 130
Toluene	ND		0.991	0.862		mg/Kg		87	70 - 130
Xylenes, Total	ND		2.97	2.55		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*

Lab Sample ID: 885-9080-2 MSD
Matrix: Solid
Analysis Batch: 9859

Client Sample ID: BH24-83 2.0'
Prep Type: Total/NA
Prep Batch: 9655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.999	0.867		mg/Kg		87	70 - 130	0	20
Ethylbenzene	ND		0.999	0.860		mg/Kg		86	70 - 130	0	20
m,p-Xylene	ND		2.00	1.71		mg/Kg		86	70 - 130	1	20
o-Xylene	ND		0.999	0.842		mg/Kg		84	70 - 130	1	20
Toluene	ND		0.999	0.868		mg/Kg		87	70 - 130	1	20
Xylenes, Total	ND		3.00	2.55		mg/Kg		85	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-9711/1-A
Matrix: Solid
Analysis Batch: 9733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9711

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		08/05/24 08:35	08/05/24 16:46	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		08/05/24 08:35	08/05/24 16:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*08/05/24 08:35*	*08/05/24 16:46*	*1*

Lab Sample ID: LCS 885-9711/2-A
Matrix: Solid
Analysis Batch: 9733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9711

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	42.3		mg/Kg		85	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: 885-9080-16 MS
Matrix: Solid
Analysis Batch: 9733

Client Sample ID: BH24-88 0.0'
Prep Type: Total/NA
Prep Batch: 9711

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		49.5	43.7		mg/Kg		88	44 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*

Lab Sample ID: 885-9080-16 MSD
Matrix: Solid
Analysis Batch: 9733

Client Sample ID: BH24-88 0.0'
Prep Type: Total/NA
Prep Batch: 9711

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		48.4	44.1		mg/Kg		91	44 - 136	1	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*

Lab Sample ID: MB 885-9717/1-A
Matrix: Solid
Analysis Batch: 9716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9717

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		08/05/24 09:36	08/05/24 13:32	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		08/05/24 09:36	08/05/24 13:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*08/05/24 09:36*	*08/05/24 13:32*	*1*

Lab Sample ID: LCS 885-9717/2-A
Matrix: Solid
Analysis Batch: 9716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9717

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	42.6		mg/Kg		85	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9732/1-A
Matrix: Solid
Analysis Batch: 9777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9732

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		08/05/24 11:06	08/05/24 12:29	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-9732/2-A
Matrix: Solid
Analysis Batch: 9777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9732

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.2		mg/Kg		94	90 - 110		

Lab Sample ID: MB 885-9737/1-A
Matrix: Solid
Analysis Batch: 9776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9737

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		08/05/24 11:47	08/05/24 12:35	1

Lab Sample ID: LCS 885-9737/2-A
Matrix: Solid
Analysis Batch: 9776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9737

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	31.1		mg/Kg		104	90 - 110		

Lab Sample ID: 885-9080-16 MS
Matrix: Solid
Analysis Batch: 9776

Client Sample ID: BH24-88 0.0'
Prep Type: Total/NA
Prep Batch: 9737

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	120		29.9	149	4	mg/Kg		96	50 - 150		

Lab Sample ID: 885-9080-16 MSD
Matrix: Solid
Analysis Batch: 9776

Client Sample ID: BH24-88 0.0'
Prep Type: Total/NA
Prep Batch: 9737

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	120		29.9	153	4	mg/Kg		109	50 - 150	2	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

GC VOA

Prep Batch: 9655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-1	BH24-83 0.0'	Total/NA	Solid	5030C	
885-9080-2	BH24-83 2.0'	Total/NA	Solid	5030C	
885-9080-3	BH24-83 4.0'	Total/NA	Solid	5030C	
885-9080-4	BH24-84 0.0'	Total/NA	Solid	5030C	
885-9080-5	BH24-84 2.0'	Total/NA	Solid	5030C	
885-9080-6	BH24-84 4.0'	Total/NA	Solid	5030C	
885-9080-7	BH24-85 0.0'	Total/NA	Solid	5030C	
885-9080-8	BH24-85 2.0'	Total/NA	Solid	5030C	
885-9080-9	BH24-85 4.0'	Total/NA	Solid	5030C	
885-9080-10	BH24-86 0.0'	Total/NA	Solid	5030C	
885-9080-11	BH24-86 2.0'	Total/NA	Solid	5030C	
885-9080-12	BH24-86 4.0'	Total/NA	Solid	5030C	
885-9080-13	BH24-87 0.0'	Total/NA	Solid	5030C	
885-9080-14	BH24-87 2.0'	Total/NA	Solid	5030C	
885-9080-15	BH24-87 4.0'	Total/NA	Solid	5030C	
885-9080-16	BH24-88 0.0'	Total/NA	Solid	5030C	
885-9080-17	BH24-88 2.0'	Total/NA	Solid	5030C	
885-9080-18	BH24-88 4.0'	Total/NA	Solid	5030C	
MB 885-9655/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9655/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9655/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-9080-1 MS	BH24-83 0.0'	Total/NA	Solid	5030C	
885-9080-1 MSD	BH24-83 0.0'	Total/NA	Solid	5030C	
885-9080-2 MS	BH24-83 2.0'	Total/NA	Solid	5030C	
885-9080-2 MSD	BH24-83 2.0'	Total/NA	Solid	5030C	

Analysis Batch: 9858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-1	BH24-83 0.0'	Total/NA	Solid	8015M/D	9655
885-9080-2	BH24-83 2.0'	Total/NA	Solid	8015M/D	9655
885-9080-3	BH24-83 4.0'	Total/NA	Solid	8015M/D	9655
885-9080-4	BH24-84 0.0'	Total/NA	Solid	8015M/D	9655
885-9080-5	BH24-84 2.0'	Total/NA	Solid	8015M/D	9655
885-9080-6	BH24-84 4.0'	Total/NA	Solid	8015M/D	9655
885-9080-7	BH24-85 0.0'	Total/NA	Solid	8015M/D	9655
885-9080-8	BH24-85 2.0'	Total/NA	Solid	8015M/D	9655
885-9080-9	BH24-85 4.0'	Total/NA	Solid	8015M/D	9655
885-9080-10	BH24-86 0.0'	Total/NA	Solid	8015M/D	9655
885-9080-11	BH24-86 2.0'	Total/NA	Solid	8015M/D	9655
885-9080-12	BH24-86 4.0'	Total/NA	Solid	8015M/D	9655
885-9080-13	BH24-87 0.0'	Total/NA	Solid	8015M/D	9655
885-9080-14	BH24-87 2.0'	Total/NA	Solid	8015M/D	9655
885-9080-15	BH24-87 4.0'	Total/NA	Solid	8015M/D	9655
885-9080-16	BH24-88 0.0'	Total/NA	Solid	8015M/D	9655
885-9080-17	BH24-88 2.0'	Total/NA	Solid	8015M/D	9655
885-9080-18	BH24-88 4.0'	Total/NA	Solid	8015M/D	9655
MB 885-9655/1-A	Method Blank	Total/NA	Solid	8015M/D	9655
LCS 885-9655/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9655
885-9080-1 MS	BH24-83 0.0'	Total/NA	Solid	8015M/D	9655
885-9080-1 MSD	BH24-83 0.0'	Total/NA	Solid	8015M/D	9655

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

GC VOA

Analysis Batch: 9859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-1	BH24-83 0.0'	Total/NA	Solid	8021B	9655
885-9080-2	BH24-83 2.0'	Total/NA	Solid	8021B	9655
885-9080-3	BH24-83 4.0'	Total/NA	Solid	8021B	9655
885-9080-4	BH24-84 0.0'	Total/NA	Solid	8021B	9655
885-9080-5	BH24-84 2.0'	Total/NA	Solid	8021B	9655
885-9080-6	BH24-84 4.0'	Total/NA	Solid	8021B	9655
885-9080-7	BH24-85 0.0'	Total/NA	Solid	8021B	9655
885-9080-8	BH24-85 2.0'	Total/NA	Solid	8021B	9655
885-9080-9	BH24-85 4.0'	Total/NA	Solid	8021B	9655
885-9080-10	BH24-86 0.0'	Total/NA	Solid	8021B	9655
MB 885-9655/1-A	Method Blank	Total/NA	Solid	8021B	9655
LCS 885-9655/3-A	Lab Control Sample	Total/NA	Solid	8021B	9655
885-9080-2 MS	BH24-83 2.0'	Total/NA	Solid	8021B	9655
885-9080-2 MSD	BH24-83 2.0'	Total/NA	Solid	8021B	9655

Analysis Batch: 9891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-11	BH24-86 2.0'	Total/NA	Solid	8021B	9655
885-9080-12	BH24-86 4.0'	Total/NA	Solid	8021B	9655
885-9080-13	BH24-87 0.0'	Total/NA	Solid	8021B	9655
885-9080-14	BH24-87 2.0'	Total/NA	Solid	8021B	9655
885-9080-15	BH24-87 4.0'	Total/NA	Solid	8021B	9655
885-9080-16	BH24-88 0.0'	Total/NA	Solid	8021B	9655
885-9080-17	BH24-88 2.0'	Total/NA	Solid	8021B	9655
885-9080-18	BH24-88 4.0'	Total/NA	Solid	8021B	9655
MB 885-9655/1-A	Method Blank	Total/NA	Solid	8021B	9655
LCS 885-9655/3-A	Lab Control Sample	Total/NA	Solid	8021B	9655

GC Semi VOA

Prep Batch: 9711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-1	BH24-83 0.0'	Total/NA	Solid	SHAKE	
885-9080-2	BH24-83 2.0'	Total/NA	Solid	SHAKE	
885-9080-3	BH24-83 4.0'	Total/NA	Solid	SHAKE	
885-9080-4	BH24-84 0.0'	Total/NA	Solid	SHAKE	
885-9080-5	BH24-84 2.0'	Total/NA	Solid	SHAKE	
885-9080-6	BH24-84 4.0'	Total/NA	Solid	SHAKE	
885-9080-7	BH24-85 0.0'	Total/NA	Solid	SHAKE	
885-9080-8	BH24-85 2.0'	Total/NA	Solid	SHAKE	
885-9080-9	BH24-85 4.0'	Total/NA	Solid	SHAKE	
885-9080-10	BH24-86 0.0'	Total/NA	Solid	SHAKE	
885-9080-11	BH24-86 2.0'	Total/NA	Solid	SHAKE	
885-9080-12	BH24-86 4.0'	Total/NA	Solid	SHAKE	
885-9080-13	BH24-87 0.0'	Total/NA	Solid	SHAKE	
885-9080-14	BH24-87 2.0'	Total/NA	Solid	SHAKE	
885-9080-15	BH24-87 4.0'	Total/NA	Solid	SHAKE	
885-9080-16	BH24-88 0.0'	Total/NA	Solid	SHAKE	
MB 885-9711/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9711/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-9080-16 MS	BH24-88 0.0'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

GC Semi VOA (Continued)

Prep Batch: 9711 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-16 MSD	BH24-88 0.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 9716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-17	BH24-88 2.0'	Total/NA	Solid	8015M/D	9717
885-9080-18	BH24-88 4.0'	Total/NA	Solid	8015M/D	9717
MB 885-9717/1-A	Method Blank	Total/NA	Solid	8015M/D	9717
LCS 885-9717/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9717

Prep Batch: 9717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-17	BH24-88 2.0'	Total/NA	Solid	SHAKE	
885-9080-18	BH24-88 4.0'	Total/NA	Solid	SHAKE	
MB 885-9717/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-9717/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 9733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-1	BH24-83 0.0'	Total/NA	Solid	8015M/D	9711
885-9080-2	BH24-83 2.0'	Total/NA	Solid	8015M/D	9711
885-9080-3	BH24-83 4.0'	Total/NA	Solid	8015M/D	9711
885-9080-4	BH24-84 0.0'	Total/NA	Solid	8015M/D	9711
885-9080-5	BH24-84 2.0'	Total/NA	Solid	8015M/D	9711
885-9080-6	BH24-84 4.0'	Total/NA	Solid	8015M/D	9711
885-9080-7	BH24-85 0.0'	Total/NA	Solid	8015M/D	9711
885-9080-8	BH24-85 2.0'	Total/NA	Solid	8015M/D	9711
885-9080-9	BH24-85 4.0'	Total/NA	Solid	8015M/D	9711
885-9080-10	BH24-86 0.0'	Total/NA	Solid	8015M/D	9711
885-9080-11	BH24-86 2.0'	Total/NA	Solid	8015M/D	9711
885-9080-12	BH24-86 4.0'	Total/NA	Solid	8015M/D	9711
885-9080-13	BH24-87 0.0'	Total/NA	Solid	8015M/D	9711
885-9080-14	BH24-87 2.0'	Total/NA	Solid	8015M/D	9711
885-9080-15	BH24-87 4.0'	Total/NA	Solid	8015M/D	9711
885-9080-16	BH24-88 0.0'	Total/NA	Solid	8015M/D	9711
MB 885-9711/1-A	Method Blank	Total/NA	Solid	8015M/D	9711
LCS 885-9711/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9711
885-9080-16 MS	BH24-88 0.0'	Total/NA	Solid	8015M/D	9711
885-9080-16 MSD	BH24-88 0.0'	Total/NA	Solid	8015M/D	9711

HPLC/IC

Prep Batch: 9732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-17	BH24-88 2.0'	Total/NA	Solid	300_Prep	
885-9080-18	BH24-88 4.0'	Total/NA	Solid	300_Prep	
MB 885-9732/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9732/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 9737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-1	BH24-83 0.0'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-9080-1

HPLC/IC (Continued)

Prep Batch: 9737 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-2	BH24-83 2.0'	Total/NA	Solid	300_Prep	
885-9080-3	BH24-83 4.0'	Total/NA	Solid	300_Prep	
885-9080-4	BH24-84 0.0'	Total/NA	Solid	300_Prep	
885-9080-5	BH24-84 2.0'	Total/NA	Solid	300_Prep	
885-9080-6	BH24-84 4.0'	Total/NA	Solid	300_Prep	
885-9080-7	BH24-85 0.0'	Total/NA	Solid	300_Prep	
885-9080-8	BH24-85 2.0'	Total/NA	Solid	300_Prep	
885-9080-9	BH24-85 4.0'	Total/NA	Solid	300_Prep	
885-9080-10	BH24-86 0.0'	Total/NA	Solid	300_Prep	
885-9080-11	BH24-86 2.0'	Total/NA	Solid	300_Prep	
885-9080-12	BH24-86 4.0'	Total/NA	Solid	300_Prep	
885-9080-13	BH24-87 0.0'	Total/NA	Solid	300_Prep	
885-9080-14	BH24-87 2.0'	Total/NA	Solid	300_Prep	
885-9080-15	BH24-87 4.0'	Total/NA	Solid	300_Prep	
885-9080-16	BH24-88 0.0'	Total/NA	Solid	300_Prep	
MB 885-9737/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9737/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-9080-16 MS	BH24-88 0.0'	Total/NA	Solid	300_Prep	
885-9080-16 MSD	BH24-88 0.0'	Total/NA	Solid	300_Prep	

Analysis Batch: 9776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-2	BH24-83 2.0'	Total/NA	Solid	300.0	9737
885-9080-3	BH24-83 4.0'	Total/NA	Solid	300.0	9737
885-9080-6	BH24-84 4.0'	Total/NA	Solid	300.0	9737
885-9080-7	BH24-85 0.0'	Total/NA	Solid	300.0	9737
885-9080-8	BH24-85 2.0'	Total/NA	Solid	300.0	9737
885-9080-9	BH24-85 4.0'	Total/NA	Solid	300.0	9737
885-9080-10	BH24-86 0.0'	Total/NA	Solid	300.0	9737
885-9080-12	BH24-86 4.0'	Total/NA	Solid	300.0	9737
885-9080-13	BH24-87 0.0'	Total/NA	Solid	300.0	9737
885-9080-14	BH24-87 2.0'	Total/NA	Solid	300.0	9737
885-9080-15	BH24-87 4.0'	Total/NA	Solid	300.0	9737
885-9080-16	BH24-88 0.0'	Total/NA	Solid	300.0	9737
MB 885-9737/1-A	Method Blank	Total/NA	Solid	300.0	9737
LCS 885-9737/2-A	Lab Control Sample	Total/NA	Solid	300.0	9737
885-9080-16 MS	BH24-88 0.0'	Total/NA	Solid	300.0	9737
885-9080-16 MSD	BH24-88 0.0'	Total/NA	Solid	300.0	9737

Analysis Batch: 9777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-17	BH24-88 2.0'	Total/NA	Solid	300.0	9732
885-9080-18	BH24-88 4.0'	Total/NA	Solid	300.0	9732
MB 885-9732/1-A	Method Blank	Total/NA	Solid	300.0	9732
LCS 885-9732/2-A	Lab Control Sample	Total/NA	Solid	300.0	9732

Analysis Batch: 9896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-1	BH24-83 0.0'	Total/NA	Solid	300.0	9737
885-9080-4	BH24-84 0.0'	Total/NA	Solid	300.0	9737
885-9080-5	BH24-84 2.0'	Total/NA	Solid	300.0	9737

QC Association Summary

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

HPLC/IC (Continued)

Analysis Batch: 9896 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9080-11	BH24-86 2.0'	Total/NA	Solid	300.0	9737

Lab Chronicle

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-83 0.0'
Lab Sample ID: 885-9080-1
Date Collected: 07/26/24 09:15
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 13:13
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 13:13
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 18:22
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		500	9896	EH	EET ALB	08/06/24 21:44

Client Sample ID: BH24-83 2.0'
Lab Sample ID: 885-9080-2
Date Collected: 07/26/24 09:20
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 14:19
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 14:19
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 18:36
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 15:09

Client Sample ID: BH24-83 4.0'
Lab Sample ID: 885-9080-3
Date Collected: 07/26/24 09:25
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 15:25
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 15:25
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 18:49
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 15:22

Client Sample ID: BH24-84 0.0'
Lab Sample ID: 885-9080-4
Date Collected: 07/26/24 09:35
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 15:47

Lab Chronicle

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-84 0.0'
Lab Sample ID: 885-9080-4
Date Collected: 07/26/24 09:35
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 15:47
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 19:03
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		50	9896	EH	EET ALB	08/06/24 13:17

Client Sample ID: BH24-84 2.0'
Lab Sample ID: 885-9080-5
Date Collected: 07/26/24 09:40
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 16:09
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 16:09
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 19:17
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		100	9896	EH	EET ALB	08/06/24 21:31

Client Sample ID: BH24-84 4.0'
Lab Sample ID: 885-9080-6
Date Collected: 07/26/24 09:45
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 16:30
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 16:30
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 19:44
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 16:01

Client Sample ID: BH24-85 0.0'
Lab Sample ID: 885-9080-7
Date Collected: 07/26/24 10:00
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 16:52
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 16:52

Lab Chronicle

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-85 0.0'
Lab Sample ID: 885-9080-7
Date Collected: 07/26/24 10:00
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 19:58
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 16:14

Client Sample ID: BH24-85 2.0'
Lab Sample ID: 885-9080-8
Date Collected: 07/26/24 10:10
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 17:14
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 17:14
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 20:12
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 16:26

Client Sample ID: BH24-85 4.0'
Lab Sample ID: 885-9080-9
Date Collected: 07/26/24 10:15
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 17:36
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 17:36
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 20:25
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 16:39

Client Sample ID: BH24-86 0.0'
Lab Sample ID: 885-9080-10
Date Collected: 07/26/24 10:25
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 17:58
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9859	AT	EET ALB	08/06/24 17:58
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 20:39

Lab Chronicle

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-86 0.0'
Lab Sample ID: 885-9080-10
Date Collected: 07/26/24 10:25
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 16:52

Client Sample ID: BH24-86 2.0'
Lab Sample ID: 885-9080-11
Date Collected: 07/26/24 10:30
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 18:42
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/07/24 22:45
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 20:52
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		50	9896	EH	EET ALB	08/06/24 13:30

Client Sample ID: BH24-86 4.0'
Lab Sample ID: 885-9080-12
Date Collected: 07/26/24 10:35
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 19:04
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/07/24 23:08
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 21:06
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 17:44

Client Sample ID: BH24-87 0.0'
Lab Sample ID: 885-9080-13
Date Collected: 07/26/24 10:40
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 19:26
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/07/24 23:32
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 21:20
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 17:57

Lab Chronicle

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-87 2.0'
Lab Sample ID: 885-9080-14
Date Collected: 07/26/24 10:45
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 19:48
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/07/24 23:55
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 21:34
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 18:09

Client Sample ID: BH24-87 4.0'
Lab Sample ID: 885-9080-15
Date Collected: 07/26/24 10:50
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 20:10
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/08/24 00:19
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 21:48
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 18:22

Client Sample ID: BH24-88 0.0'
Lab Sample ID: 885-9080-16
Date Collected: 07/27/24 09:00
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 20:31
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/08/24 00:42
Total/NA	Prep	SHAKE			9711	KR	EET ALB	08/05/24 08:35
Total/NA	Analysis	8015M/D		1	9733	KR	EET ALB	08/05/24 22:01
Total/NA	Prep	300_Prep			9737	EH	EET ALB	08/05/24 11:47
Total/NA	Analysis	300.0		20	9776	EH	EET ALB	08/05/24 18:35

Client Sample ID: BH24-88 2.0'
Lab Sample ID: 885-9080-17
Date Collected: 07/27/24 09:15
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 20:53

Lab Chronicle

Client: Vertex
Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Client Sample ID: BH24-88 2.0'
Lab Sample ID: 885-9080-17

Date Collected: 07/27/24 09:15
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/08/24 01:05
Total/NA	Prep	SHAKE			9717	EM	EET ALB	08/05/24 09:36
Total/NA	Analysis	8015M/D		1	9716	EM	EET ALB	08/05/24 16:15
Total/NA	Prep	300_Prep			9732	KB	EET ALB	08/05/24 11:06
Total/NA	Analysis	300.0		20	9777	RC	EET ALB	08/05/24 17:26

Client Sample ID: BH24-88 4.0'
Lab Sample ID: 885-9080-18

Date Collected: 07/27/24 09:30
Matrix: Solid
Date Received: 08/02/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8015M/D		1	9858	AT	EET ALB	08/06/24 21:15
Total/NA	Prep	5030C			9655	AT	EET ALB	08/02/24 11:52
Total/NA	Analysis	8021B		1	9891	JP	EET ALB	08/08/24 01:29
Total/NA	Prep	SHAKE			9717	EM	EET ALB	08/05/24 09:36
Total/NA	Analysis	8015M/D		1	9716	EM	EET ALB	08/05/24 16:26
Total/NA	Prep	300_Prep			9732	KB	EET ALB	08/05/24 11:06
Total/NA	Analysis	300.0		20	9777	RC	EET ALB	08/05/24 17:38

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-9080-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 72-hr
☐ Standard ☒ Rush ~~5-day~~

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☒ Yes ☐ No

# of Coolers: 1 Box Box

Cooler Temp(including CF): 6.3-1.3=5.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710 885-9080 COC
Tel. 505-345-3975 Fax 505-345-4107

Page 1 of 2

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.26.24	0915	Soil	BH24-83 0.0'	4 oz	ICE	1										
	0920		BH24-83 2.0'			2										
	0925		BH24-83 4.0'			3										
	0935		BH24-84 0.0'			4										
	0940		BH24-84 2.0'			5										
	0945		BH24-84 4.0'			6										
	1000		BH24-85 0.0'			7										
	1010		BH24-85 2.0'			8										
	1015		BH24-85 4.0'			9										
	1025		BH24-86 0.0'			10										
	1030		BH24-86 2.0'			11										
↓	1035	↓	BH24-86 4.0'	↓	↓	12	↓	↓					↓			

Date	Time	Relinquished by	Received by	Via	Date	Time
07/30	1834				8/1/24	0700
8/1/24	1900		SCM	COURIER	8/2/24	0730

Remarks: Direct bill to Mack Energy
CC: SCarttar@vertex.ca
ALudvik@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (Mack Energy)

Mailing Address: Vertex Resources Services Inc. 3101 Boyd Dr., Carlsbad, NM 88220

Phone #: On File

email or Fax#: ↓

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 72-hr
☐ Standard ☒ Rush ~~5-day~~

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

Sampler: AL

On Ice: ☒ Yes ☐ No

# of Coolers: 1 Boo Boo

Cooler Temp(including CF): 6.3 - 1.3 = 5.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

9080 2/2

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7.26.24	1040	Soil	BH24-87 0.0'	4 oz	ICE	13	↓	↓					↓			
↓	1045	↓	BH24-87 2.0'	↓	↓	14										
↓	1050	↓	BH24-87 4.0'	↓	↓	15										
7.27.24	0900		BH24-88 0.0'			16										
↓	0915		BH24-88 2.0'			17										
↓	0930	↓	BH24-88 4.0'	↓	↓	18	↓	↓					↓			

Analysis Request

Date	Time	Relinquished by	Received by	Via	Date	Time
8-1-24	0730				8/1/24	0700
8/1/24	1900		SCM	COURIER	8/2/24	0730

Remarks: Direct bill to Mack Energy
cc: scarttar@vertex.ca
ALudvik@Vertex.ca

If necessary samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-9080-1

Login Number: 9080 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 9/19/2024 3:29:53 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-11427-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
9/19/2024 3:29:53 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-11427-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 74
QC Association Summary 91
Lab Chronicle 106
Certification Summary 127
Chain of Custody 128
Receipt Checklists 140

Definitions/Glossary

Client: Vertex Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex
Project: Dawson Creek State #2

Job ID: 885-11427-1

Job ID: 885-11427-1 Eurofins Albuquerque

Job Narrative
885-11427-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/10/2024 8:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C.

Receipt Exceptions
One or more containers for the following samples were received empty: BS24-22 3'

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: BS24-11 3' (885-11427-11), BS24-12 3' (885-11427-12), BS24-16 3' (885-11427-16), BS24-18 3' (885-11427-18) and BS24-20 3' (885-11427-20). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-01 3'

Date Collected: 09/07/24 08:30
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 11:11	09/11/24 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 11:11*	*09/11/24 20:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 11:11	09/11/24 20:12	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 11:11	09/11/24 20:12	1
Toluene	ND		0.047		mg/Kg		09/10/24 11:11	09/11/24 20:12	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 11:11	09/11/24 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*09/10/24 11:11*	*09/11/24 20:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/11/24 11:22	09/13/24 01:04	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 11:22	09/13/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*09/11/24 11:22*	*09/13/24 01:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		09/11/24 13:14	09/12/24 00:32	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-02 3'

Date Collected: 09/07/24 08:35
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 11:11	09/11/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*35 - 166*	*09/10/24 11:11*	*09/11/24 20:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 11:11	09/11/24 20:34	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 11:11	09/11/24 20:34	1
Toluene	ND		0.047		mg/Kg		09/10/24 11:11	09/11/24 20:34	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 11:11	09/11/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/10/24 11:11*	*09/11/24 20:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/11/24 11:22	09/13/24 01:16	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/11/24 11:22	09/13/24 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*09/11/24 11:22*	*09/13/24 01:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/11/24 13:14	09/12/24 00:45	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-03 3'

Date Collected: 09/07/24 08:40
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 12:17	09/12/24 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 12:17*	*09/12/24 21:41*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/12/24 21:41	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 12:17	09/12/24 21:41	1
Toluene	ND		0.049		mg/Kg		09/10/24 12:17	09/12/24 21:41	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 12:17	09/12/24 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*09/10/24 12:17*	*09/12/24 21:41*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/11/24 11:22	09/13/24 00:28	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/11/24 11:22	09/13/24 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/11/24 11:22*	*09/13/24 00:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/11/24 13:14	09/12/24 00:58	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-04 3'

Date Collected: 09/07/24 08:45
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 12:17	09/12/24 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 12:17*	*09/12/24 22:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/12/24 22:51	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 12:17	09/12/24 22:51	1
Toluene	ND		0.048		mg/Kg		09/10/24 12:17	09/12/24 22:51	1
Xylenes, Total	ND		0.096		mg/Kg		09/10/24 12:17	09/12/24 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 12:17*	*09/12/24 22:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/11/24 11:22	09/13/24 00:40	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 11:22	09/13/24 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/11/24 11:22*	*09/13/24 00:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/11/24 13:14	09/12/24 01:11	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-05 3'

Date Collected: 09/07/24 08:50
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 12:17	09/13/24 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 12:17*	*09/13/24 00:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/13/24 00:01	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 12:17	09/13/24 00:01	1
Toluene	ND		0.048		mg/Kg		09/10/24 12:17	09/13/24 00:01	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 12:17	09/13/24 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/10/24 12:17*	*09/13/24 00:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/11/24 11:22	09/13/24 00:53	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/11/24 11:22	09/13/24 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*09/11/24 11:22*	*09/13/24 00:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**98**		60		mg/Kg		09/11/24 13:14	09/12/24 01:49	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-06 3'

Date Collected: 09/07/24 08:55
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 12:17	09/13/24 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 12:17*	*09/13/24 00:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/13/24 00:25	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 12:17	09/13/24 00:25	1
Toluene	ND		0.048		mg/Kg		09/10/24 12:17	09/13/24 00:25	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 12:17	09/13/24 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 12:17*	*09/13/24 00:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/11/24 11:22	09/12/24 07:58	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/11/24 11:22	09/12/24 07:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*09/11/24 11:22*	*09/12/24 07:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		09/11/24 13:14	09/12/24 02:02	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-07 3'
Lab Sample ID: 885-11427-7
Date Collected: 09/07/24 09:00
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 12:17	09/13/24 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 12:17*	*09/13/24 00:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 12:17	09/13/24 00:48	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 12:17	09/13/24 00:48	1
Toluene	ND		0.046		mg/Kg		09/10/24 12:17	09/13/24 00:48	1
Xylenes, Total	ND		0.092		mg/Kg		09/10/24 12:17	09/13/24 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 12:17*	*09/13/24 00:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/11/24 11:22	09/12/24 08:23	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/11/24 11:22	09/12/24 08:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*09/11/24 11:22*	*09/12/24 08:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		09/12/24 08:07	09/12/24 09:27	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-08 3'
Lab Sample ID: 885-11427-8
Date Collected: 09/07/24 09:05
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 12:17	09/13/24 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 12:17*	*09/13/24 01:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/13/24 01:12	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 12:17	09/13/24 01:12	1
Toluene	ND		0.050		mg/Kg		09/10/24 12:17	09/13/24 01:12	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 12:17	09/13/24 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*09/10/24 12:17*	*09/13/24 01:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/11/24 15:53	09/13/24 07:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 15:53	09/13/24 07:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/11/24 15:53*	*09/13/24 07:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		09/12/24 08:07	09/12/24 10:06	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-09 3'
Lab Sample ID: 885-11427-9
Date Collected: 09/07/24 09:10
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 12:17	09/13/24 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 12:17*	*09/13/24 01:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/13/24 01:36	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 12:17	09/13/24 01:36	1
Toluene	ND		0.047		mg/Kg		09/10/24 12:17	09/13/24 01:36	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 12:17	09/13/24 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 12:17*	*09/13/24 01:36*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		09/11/24 13:59	09/12/24 12:18	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 13:59	09/12/24 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*130*		*62 - 134*	*09/11/24 13:59*	*09/12/24 12:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 11:10	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-10 3'

Date Collected: 09/07/24 09:15
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-10

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 12:17	09/13/24 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 12:17*	*09/13/24 01:59*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/13/24 01:59	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 01:59	1
Toluene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 01:59	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 12:17	09/13/24 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*09/10/24 12:17*	*09/13/24 01:59*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/11/24 13:59	09/12/24 12:30	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 13:59	09/12/24 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*125*		*62 - 134*	*09/11/24 13:59*	*09/12/24 12:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 11:23	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-11 3'

Date Collected: 09/07/24 09:20
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-11

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 12:17	09/13/24 02:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 12:17*	*09/13/24 02:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 12:17	09/13/24 02:23	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 12:17	09/13/24 02:23	1
Toluene	ND		0.046		mg/Kg		09/10/24 12:17	09/13/24 02:23	1
Xylenes, Total	ND		0.092		mg/Kg		09/10/24 12:17	09/13/24 02:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 12:17*	*09/13/24 02:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/11/24 13:59	09/12/24 12:43	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 13:59	09/12/24 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*147*	*S1+*	*62 - 134*	*09/11/24 13:59*	*09/12/24 12:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 11:36	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-12 3'

Date Collected: 09/07/24 09:25
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-12

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 12:17	09/13/24 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*09/10/24 12:17*	*09/13/24 02:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/13/24 02:46	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 12:17	09/13/24 02:46	1
Toluene	ND		0.050		mg/Kg		09/10/24 12:17	09/13/24 02:46	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 12:17	09/13/24 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*09/10/24 12:17*	*09/13/24 02:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/11/24 13:59	09/12/24 12:55	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 13:59	09/12/24 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*145*	*S1+*	*62 - 134*	*09/11/24 13:59*	*09/12/24 12:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 11:49	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-13 3'

Date Collected: 09/07/24 09:30
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 12:17	09/13/24 03:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/10/24 12:17*	*09/13/24 03:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 12:17	09/13/24 03:33	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 12:17	09/13/24 03:33	1
Toluene	ND		0.047		mg/Kg		09/10/24 12:17	09/13/24 03:33	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 12:17	09/13/24 03:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*09/10/24 12:17*	*09/13/24 03:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/11/24 13:59	09/12/24 13:08	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 13:59	09/12/24 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*126*		*62 - 134*	*09/11/24 13:59*	*09/12/24 13:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 12:02	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-14 3'

Date Collected: 09/07/24 09:35
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-14

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 12:17	09/13/24 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*09/10/24 12:17*	*09/13/24 03:57*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/13/24 03:57	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 12:17	09/13/24 03:57	1
Toluene	ND		0.048		mg/Kg		09/10/24 12:17	09/13/24 03:57	1
Xylenes, Total	ND		0.097		mg/Kg		09/10/24 12:17	09/13/24 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*09/10/24 12:17*	*09/13/24 03:57*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/11/24 13:59	09/12/24 13:21	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/11/24 13:59	09/12/24 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*134*		*62 - 134*	*09/11/24 13:59*	*09/12/24 13:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 12:15	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-15 3'

Date Collected: 09/07/24 09:40
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-15

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 12:17	09/13/24 04:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 12:17*	*09/13/24 04:20*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/13/24 04:20	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 04:20	1
Toluene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 04:20	1
Xylenes, Total	ND		0.097		mg/Kg		09/10/24 12:17	09/13/24 04:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*09/10/24 12:17*	*09/13/24 04:20*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/11/24 13:59	09/12/24 13:33	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 13:59	09/12/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*121*		*62 - 134*	*09/11/24 13:59*	*09/12/24 13:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 12:27	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-16 3'

Date Collected: 09/07/24 09:45
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-16

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 12:17	09/13/24 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/10/24 12:17*	*09/13/24 04:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 12:17	09/13/24 04:44	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 04:44	1
Toluene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 04:44	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 12:17	09/13/24 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*09/10/24 12:17*	*09/13/24 04:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/11/24 13:59	09/12/24 13:46	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/11/24 13:59	09/12/24 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*141*	*S1+*	*62 - 134*	*09/11/24 13:59*	*09/12/24 13:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 12:40	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-17 3'

Date Collected: 09/07/24 09:50
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-17

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 12:17	09/13/24 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 12:17*	*09/13/24 05:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/13/24 05:08	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 12:17	09/13/24 05:08	1
Toluene	ND		0.050		mg/Kg		09/10/24 12:17	09/13/24 05:08	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 12:17	09/13/24 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*09/10/24 12:17*	*09/13/24 05:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/11/24 13:59	09/12/24 13:58	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 13:59	09/12/24 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*	*09/11/24 13:59*	*09/12/24 13:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 12:53	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-18 3'

Date Collected: 09/07/24 09:55
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-18

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 12:17	09/13/24 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 12:17*	*09/13/24 05:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/13/24 05:31	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 05:31	1
Toluene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 05:31	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 12:17	09/13/24 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/10/24 12:17*	*09/13/24 05:31*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		09/11/24 13:59	09/12/24 14:11	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		09/11/24 13:59	09/12/24 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*138*	*S1+*	*62 - 134*	*09/11/24 13:59*	*09/12/24 14:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		09/12/24 08:07	09/12/24 13:06	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-19 3'

Date Collected: 09/07/24 10:00
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-19

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 12:17	09/13/24 05:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 12:17*	*09/13/24 05:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 12:17	09/13/24 05:55	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 12:17	09/13/24 05:55	1
Toluene	ND		0.047		mg/Kg		09/10/24 12:17	09/13/24 05:55	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 12:17	09/13/24 05:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*09/10/24 12:17*	*09/13/24 05:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		09/11/24 13:59	09/12/24 14:36	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 13:59	09/12/24 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*123*		*62 - 134*	*09/11/24 13:59*	*09/12/24 14:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		09/12/24 08:07	09/12/24 13:45	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-20 3'

Date Collected: 09/07/24 10:00
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-20

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 12:17	09/13/24 06:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/10/24 12:17*	*09/13/24 06:19*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/13/24 06:19	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 06:19	1
Toluene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 06:19	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 12:17	09/13/24 06:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*09/10/24 12:17*	*09/13/24 06:19*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/11/24 13:59	09/12/24 14:49	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/11/24 13:59	09/12/24 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*148*	*S1+*	*62 - 134*	*09/11/24 13:59*	*09/12/24 14:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		09/12/24 08:07	09/12/24 13:58	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-21 3'

Date Collected: 09/07/24 10:00
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-21

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 12:17	09/13/24 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 12:17*	*09/13/24 06:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 12:17	09/13/24 06:42	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 12:17	09/13/24 06:42	1
Toluene	ND		0.046		mg/Kg		09/10/24 12:17	09/13/24 06:42	1
Xylenes, Total	ND		0.092		mg/Kg		09/10/24 12:17	09/13/24 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 12:17*	*09/13/24 06:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/11/24 13:59	09/12/24 15:01	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/11/24 13:59	09/12/24 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*09/11/24 13:59*	*09/12/24 15:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		09/12/24 08:07	09/12/24 14:11	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-23 3'

Date Collected: 09/07/24 10:05
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-23

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 12:17	09/13/24 07:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 12:17*	*09/13/24 07:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/13/24 07:06	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 07:06	1
Toluene	ND		0.049		mg/Kg		09/10/24 12:17	09/13/24 07:06	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 12:17	09/13/24 07:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*09/10/24 12:17*	*09/13/24 07:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/11/24 13:59	09/12/24 15:14	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/11/24 13:59	09/12/24 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*09/11/24 13:59*	*09/12/24 15:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 08:07	09/12/24 14:24	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-24 3'

Date Collected: 09/07/24 10:05
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-24

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/10/24 15:41*	*09/14/24 01:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 01:12	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 01:12	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 01:12	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 15:41	09/14/24 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*09/10/24 15:41*	*09/14/24 01:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/11/24 13:59	09/12/24 15:27	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/11/24 13:59	09/12/24 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*131*		*62 - 134*	*09/11/24 13:59*	*09/12/24 15:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		09/12/24 08:07	09/12/24 14:36	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-25 3'
Lab Sample ID: 885-11427-25
Date Collected: 09/07/24 10:10
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 02:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 15:41*	*09/14/24 02:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 02:22	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 02:22	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 02:22	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 15:41	09/14/24 02:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 02:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/11/24 13:59	09/12/24 15:39	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/11/24 13:59	09/12/24 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*	*09/11/24 13:59*	*09/12/24 15:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		09/12/24 08:07	09/12/24 14:49	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-26 3'

Date Collected: 09/07/24 10:10
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-26

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 15:41*	*09/14/24 03:32*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 03:32	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 03:32	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 03:32	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 15:41	09/14/24 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 03:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		09/11/24 13:59	09/12/24 15:52	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		09/11/24 13:59	09/12/24 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*127*		*62 - 134*	*09/11/24 13:59*	*09/12/24 15:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		09/12/24 08:07	09/12/24 15:02	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-27 3'

Date Collected: 09/07/24 10:10
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-27

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 15:41	09/14/24 03:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 15:41*	*09/14/24 03:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 03:56	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 15:41	09/14/24 03:56	1
Toluene	ND		0.049		mg/Kg		09/10/24 15:41	09/14/24 03:56	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 15:41	09/14/24 03:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/10/24 15:41*	*09/14/24 03:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/11/24 13:59	09/12/24 16:04	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/11/24 13:59	09/12/24 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*09/11/24 13:59*	*09/12/24 16:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		09/12/24 08:07	09/12/24 15:15	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-29 3'

Date Collected: 09/07/24 10:15
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-28

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 15:41	09/14/24 04:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 15:41*	*09/14/24 04:19*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 15:41	09/14/24 04:19	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 04:19	1
Toluene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 04:19	1
Xylenes, Total	ND		0.097		mg/Kg		09/10/24 15:41	09/14/24 04:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*09/10/24 15:41*	*09/14/24 04:19*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/11/24 13:59	09/12/24 16:17	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/11/24 13:59	09/12/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*129*		*62 - 134*	*09/11/24 13:59*	*09/12/24 16:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**960**		60		mg/Kg		09/12/24 08:39	09/12/24 14:37	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-30 3'

Date Collected: 09/07/24 10:15
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-29

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 15:41*	*09/14/24 04:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 04:42	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 04:42	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 04:42	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 15:41	09/14/24 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 04:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/11/24 13:59	09/12/24 16:30	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 13:59	09/12/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*112*		*62 - 134*	*09/11/24 13:59*	*09/12/24 16:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**	**F2**	60		mg/Kg		09/12/24 08:39	09/12/24 16:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-31 3'

Date Collected: 09/07/24 10:15
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-30

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 05:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 15:41*	*09/14/24 05:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 05:06	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 05:06	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 05:06	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 15:41	09/14/24 05:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*09/10/24 15:41*	*09/14/24 05:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/12/24 09:09	09/12/24 17:47	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 09:09	09/12/24 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*09/12/24 09:09*	*09/12/24 17:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		09/12/24 14:50	09/12/24 21:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-32 3'

Date Collected: 09/07/24 10:20
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-31

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 15:41*	*09/14/24 05:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 05:29	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 05:29	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 05:29	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 15:41	09/14/24 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 05:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/12/24 09:09	09/12/24 18:00	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/12/24 09:09	09/12/24 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/12/24 09:09*	*09/12/24 18:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		60		mg/Kg		09/12/24 14:50	09/12/24 22:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-33 3'

Date Collected: 09/07/24 10:20
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-32

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 15:41	09/14/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*09/10/24 15:41*	*09/14/24 05:53*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 15:41	09/14/24 05:53	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 05:53	1
Toluene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 05:53	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 15:41	09/14/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*09/10/24 15:41*	*09/14/24 05:53*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/12/24 09:09	09/12/24 18:13	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 09:09	09/12/24 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*09/12/24 09:09*	*09/12/24 18:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		09/12/24 14:50	09/12/24 22:21	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-34 3'

Date Collected: 09/07/24 10:20
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-33

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 15:41*	*09/14/24 06:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 06:16	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 06:16	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 06:16	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 15:41	09/14/24 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/10/24 15:41*	*09/14/24 06:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/12/24 09:09	09/12/24 18:25	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 09:09	09/12/24 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*09/12/24 09:09*	*09/12/24 18:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		60		mg/Kg		09/12/24 14:50	09/12/24 22:34	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-35 3'

Date Collected: 09/07/24 10:25
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-34

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 15:41	09/14/24 07:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 15:41*	*09/14/24 07:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 15:41	09/14/24 07:03	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 15:41	09/14/24 07:03	1
Toluene	ND		0.046		mg/Kg		09/10/24 15:41	09/14/24 07:03	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 15:41	09/14/24 07:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 07:03*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/12/24 09:09	09/12/24 18:38	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/12/24 09:09	09/12/24 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*09/12/24 09:09*	*09/12/24 18:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81**		61		mg/Kg		09/12/24 14:50	09/12/24 22:47	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-36 3'

Date Collected: 09/07/24 10:25
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-35

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 15:41	09/14/24 07:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 15:41*	*09/14/24 07:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 15:41	09/14/24 07:27	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 15:41	09/14/24 07:27	1
Toluene	ND		0.049		mg/Kg		09/10/24 15:41	09/14/24 07:27	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 15:41	09/14/24 07:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/10/24 15:41*	*09/14/24 07:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/12/24 09:09	09/12/24 18:50	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/12/24 09:09	09/12/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*09/12/24 09:09*	*09/12/24 18:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 14:50	09/12/24 23:00	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-37 3'

Date Collected: 09/07/24 10:25
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-36

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 15:41	09/14/24 07:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 15:41*	*09/14/24 07:50*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 15:41	09/14/24 07:50	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 07:50	1
Toluene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 07:50	1
Xylenes, Total	ND		0.096		mg/Kg		09/10/24 15:41	09/14/24 07:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*09/10/24 15:41*	*09/14/24 07:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 09:09	09/12/24 19:02	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 09:09	09/12/24 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*09/12/24 09:09*	*09/12/24 19:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**520**		60		mg/Kg		09/12/24 14:50	09/12/24 23:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-39 3'

Date Collected: 09/07/24 10:30
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-37

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 15:41*	*09/14/24 08:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 08:14	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 08:14	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 08:14	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 15:41	09/14/24 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*09/10/24 15:41*	*09/14/24 08:14*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/12/24 09:09	09/12/24 19:14	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 09:09	09/12/24 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/12/24 09:09*	*09/12/24 19:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**240**		60		mg/Kg		09/12/24 14:50	09/12/24 23:51	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-41- 3'

Date Collected: 09/07/24 10:30
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-38

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 15:41	09/14/24 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 15:41*	*09/14/24 08:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 15:41	09/14/24 08:38	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 15:41	09/14/24 08:38	1
Toluene	ND		0.049		mg/Kg		09/10/24 15:41	09/14/24 08:38	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 15:41	09/14/24 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 08:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/12/24 09:09	09/12/24 19:27	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 09:09	09/12/24 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/12/24 09:09*	*09/12/24 19:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 14:50	09/13/24 00:04	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-42 3'

Date Collected: 09/07/24 10:30
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-39

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 15:41	09/14/24 09:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 15:41*	*09/14/24 09:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 15:41	09/14/24 09:01	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 09:01	1
Toluene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 09:01	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 15:41	09/14/24 09:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*09/10/24 15:41*	*09/14/24 09:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/12/24 09:09	09/12/24 19:39	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 09:09	09/12/24 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/12/24 09:09*	*09/12/24 19:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		60		mg/Kg		09/12/24 14:50	09/13/24 00:17	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-43 3'
Lab Sample ID: 885-11427-40
Date Collected: 09/07/24 10:35
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 15:41	09/14/24 09:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*09/10/24 15:41*	*09/14/24 09:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 15:41	09/14/24 09:25	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 15:41	09/14/24 09:25	1
Toluene	ND		0.047		mg/Kg		09/10/24 15:41	09/14/24 09:25	1
Xylenes, Total	ND		0.094		mg/Kg		09/10/24 15:41	09/14/24 09:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*09/10/24 15:41*	*09/14/24 09:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/12/24 09:09	09/12/24 20:03	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 09:09	09/12/24 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/12/24 09:09*	*09/12/24 20:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 14:50	09/13/24 00:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-44 3'

Date Collected: 09/07/24 10:35
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-41

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 15:41	09/14/24 09:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 15:41*	*09/14/24 09:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 15:41	09/14/24 09:48	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 09:48	1
Toluene	ND		0.048		mg/Kg		09/10/24 15:41	09/14/24 09:48	1
Xylenes, Total	ND		0.097		mg/Kg		09/10/24 15:41	09/14/24 09:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 09:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/12/24 09:09	09/12/24 20:15	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 09:09	09/12/24 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*09/12/24 09:09*	*09/12/24 20:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**240**		60		mg/Kg		09/12/24 14:50	09/13/24 01:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-46 3'

Date Collected: 09/07/24 10:35
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-42

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 10:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 15:41*	*09/14/24 10:11*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 10:11	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 10:11	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 10:11	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 15:41	09/14/24 10:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*09/10/24 15:41*	*09/14/24 10:11*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		09/12/24 09:09	09/12/24 20:27	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/12/24 09:09	09/12/24 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*09/12/24 09:09*	*09/12/24 20:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		09/12/24 14:50	09/13/24 01:21	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-47 3'

Date Collected: 09/07/24 10:40
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-43

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 15:41	09/14/24 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*09/10/24 15:41*	*09/14/24 10:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 15:41	09/14/24 10:35	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 15:41	09/14/24 10:35	1
Toluene	ND		0.047		mg/Kg		09/10/24 15:41	09/14/24 10:35	1
Xylenes, Total	ND		0.094		mg/Kg		09/10/24 15:41	09/14/24 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*09/10/24 15:41*	*09/14/24 10:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/12/24 09:09	09/12/24 20:39	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/12/24 09:09	09/12/24 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/12/24 09:09*	*09/12/24 20:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		61		mg/Kg		09/12/24 14:50	09/13/24 01:34	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-48 3'

Date Collected: 09/07/24 10:40
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-44

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/13/24 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*35 - 166*	*09/10/24 17:01*	*09/13/24 00:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 00:03	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 00:03	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 00:03	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 17:01	09/13/24 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/10/24 17:01*	*09/13/24 00:03*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/12/24 09:09	09/12/24 20:51	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 09:09	09/12/24 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*09/12/24 09:09*	*09/12/24 20:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/12/24 14:50	09/13/24 02:13	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-50 3'

Date Collected: 09/07/24 10:40
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-45

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/13/24 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 17:01*	*09/13/24 01:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 01:08	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 01:08	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 01:08	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 17:01	09/13/24 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*09/10/24 17:01*	*09/13/24 01:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 09:09	09/12/24 21:03	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 09:09	09/12/24 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*09/12/24 09:09*	*09/12/24 21:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		60		mg/Kg		09/12/24 14:50	09/13/24 02:25	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-51 3'

Date Collected: 09/07/24 10:45
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-46

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 17:01	09/13/24 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*09/10/24 17:01*	*09/13/24 02:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 02:13	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 02:13	1
Toluene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 02:13	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 17:01	09/13/24 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/10/24 17:01*	*09/13/24 02:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/12/24 09:09	09/12/24 21:15	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/12/24 09:09	09/12/24 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*09/12/24 09:09*	*09/12/24 21:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**240**		60		mg/Kg		09/12/24 14:50	09/13/24 02:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-52 3'

Date Collected: 09/07/24 10:45
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-47

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/13/24 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/10/24 17:01*	*09/13/24 02:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 02:35	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 02:35	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 02:35	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 17:01	09/13/24 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/10/24 17:01*	*09/13/24 02:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/12/24 09:09	09/12/24 21:27	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 09:09	09/12/24 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*09/12/24 09:09*	*09/12/24 21:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**290**		60		mg/Kg		09/12/24 14:50	09/13/24 02:51	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-53 3'

Date Collected: 09/07/24 10:50
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-48

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 17:01	09/13/24 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*35 - 166*	*09/10/24 17:01*	*09/13/24 02:57*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 17:01	09/13/24 02:57	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 02:57	1
Toluene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 02:57	1
Xylenes, Total	ND		0.092		mg/Kg		09/10/24 17:01	09/13/24 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/10/24 17:01*	*09/13/24 02:57*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/12/24 09:09	09/12/24 21:39	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 09:09	09/12/24 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*09/12/24 09:09*	*09/12/24 21:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**350**		60		mg/Kg		09/12/24 14:50	09/13/24 03:04	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-55 3'

Date Collected: 09/07/24 11:00
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-49

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/13/24 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*09/10/24 17:01*	*09/13/24 03:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 03:18	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 03:18	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 03:18	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 17:01	09/13/24 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/10/24 17:01*	*09/13/24 03:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/12/24 09:09	09/12/24 21:52	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 09:09	09/12/24 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*09/12/24 09:09*	*09/12/24 21:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**290**		60		mg/Kg		09/12/24 14:50	09/13/24 03:17	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-56 3'

Date Collected: 09/07/24 11:00
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-50

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 17:01	09/13/24 03:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*09/10/24 17:01*	*09/13/24 03:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 17:01	09/13/24 03:40	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 17:01	09/13/24 03:40	1
Toluene	ND		0.048		mg/Kg		09/10/24 17:01	09/13/24 03:40	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 17:01	09/13/24 03:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/10/24 17:01*	*09/13/24 03:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/12/24 13:23	09/13/24 02:04	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 02:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*09/12/24 13:23*	*09/13/24 02:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		09/13/24 09:02	09/13/24 10:36	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-57 3'

Date Collected: 09/07/24 11:00
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-51

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 17:01	09/13/24 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 17:01*	*09/13/24 04:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 17:01	09/13/24 04:02	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 17:01	09/13/24 04:02	1
Toluene	ND		0.047		mg/Kg		09/10/24 17:01	09/13/24 04:02	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 17:01	09/13/24 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/10/24 17:01*	*09/13/24 04:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 13:23	09/13/24 02:16	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/12/24 13:23*	*09/13/24 02:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		60		mg/Kg		09/13/24 09:02	09/13/24 11:14	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-58 3'

Date Collected: 09/07/24 11:10
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-52

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/13/24 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/10/24 17:01*	*09/13/24 04:24*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 04:24	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 04:24	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 04:24	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 17:01	09/13/24 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*09/10/24 17:01*	*09/13/24 04:24*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/12/24 13:23	09/13/24 02:28	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 13:23	09/13/24 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*86*		*62 - 134*	*09/12/24 13:23*	*09/13/24 02:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		09/13/24 09:02	09/13/24 11:27	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-59 3'

Date Collected: 09/07/24 11:10
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-53

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 17:01	09/13/24 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/10/24 17:01*	*09/13/24 04:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 17:01	09/13/24 04:46	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 17:01	09/13/24 04:46	1
Toluene	ND		0.048		mg/Kg		09/10/24 17:01	09/13/24 04:46	1
Xylenes, Total	ND		0.097		mg/Kg		09/10/24 17:01	09/13/24 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/10/24 17:01*	*09/13/24 04:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 13:23	09/13/24 02:40	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 02:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/12/24 13:23*	*09/13/24 02:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		60		mg/Kg		09/13/24 09:02	09/13/24 11:40	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-60 3'
Lab Sample ID: 885-11427-54
Date Collected: 09/07/24 11:10
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/13/24 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/10/24 17:01*	*09/13/24 05:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 05:29	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 05:29	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 05:29	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 17:01	09/13/24 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/10/24 17:01*	*09/13/24 05:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/12/24 13:23	09/13/24 02:52	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 13:23	09/13/24 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*09/12/24 13:23*	*09/13/24 02:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		09/13/24 09:02	09/13/24 12:19	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-61 3'

Date Collected: 09/07/24 11:15
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-55

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 17:01	09/13/24 05:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*09/10/24 17:01*	*09/13/24 05:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 17:01	09/13/24 05:51	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 05:51	1
Toluene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 05:51	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 17:01	09/13/24 05:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/10/24 17:01*	*09/13/24 05:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 13:23	09/13/24 03:04	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/12/24 13:23*	*09/13/24 03:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		09/13/24 09:02	09/13/24 12:32	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-64 3'

Date Collected: 09/07/24 11:15
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-56

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/10/24 17:01	09/13/24 06:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*09/10/24 17:01*	*09/13/24 06:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 17:01	09/13/24 06:12	1
Ethylbenzene	ND		0.047		mg/Kg		09/10/24 17:01	09/13/24 06:12	1
Toluene	ND		0.047		mg/Kg		09/10/24 17:01	09/13/24 06:12	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 17:01	09/13/24 06:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/10/24 17:01*	*09/13/24 06:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		09/12/24 13:23	09/13/24 03:16	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		09/12/24 13:23	09/13/24 03:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*09/12/24 13:23*	*09/13/24 03:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**280**		60		mg/Kg		09/13/24 09:02	09/13/24 12:45	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-65 3'

Date Collected: 09/07/24 11:15
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-57

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 17:01	09/13/24 06:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 17:01*	*09/13/24 06:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 17:01	09/13/24 06:34	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 06:34	1
Toluene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 06:34	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 17:01	09/13/24 06:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/10/24 17:01*	*09/13/24 06:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 13:23	09/13/24 03:29	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*09/12/24 13:23*	*09/13/24 03:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**310**		60		mg/Kg		09/13/24 09:02	09/13/24 12:57	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-66 3'

Date Collected: 09/07/24 11:20
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-58

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 17:01	09/13/24 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/10/24 17:01*	*09/13/24 06:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 17:01	09/13/24 06:56	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 06:56	1
Toluene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 06:56	1
Xylenes, Total	ND		0.092		mg/Kg		09/10/24 17:01	09/13/24 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/10/24 17:01*	*09/13/24 06:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/12/24 13:23	09/13/24 03:41	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 13:23	09/13/24 03:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/12/24 13:23*	*09/13/24 03:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		09/13/24 09:02	09/13/24 13:10	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-67 3'

Date Collected: 09/07/24 11:20
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-59

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/10/24 17:01	09/13/24 07:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*35 - 166*	*09/10/24 17:01*	*09/13/24 07:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 17:01	09/13/24 07:18	1
Ethylbenzene	ND		0.048		mg/Kg		09/10/24 17:01	09/13/24 07:18	1
Toluene	ND		0.048		mg/Kg		09/10/24 17:01	09/13/24 07:18	1
Xylenes, Total	ND		0.095		mg/Kg		09/10/24 17:01	09/13/24 07:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*09/10/24 17:01*	*09/13/24 07:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/12/24 13:23	09/13/24 03:53	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 13:23	09/13/24 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/12/24 13:23*	*09/13/24 03:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		09/13/24 09:02	09/13/24 13:23	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-68 3'

Date Collected: 09/07/24 11:20
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-60

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/10/24 17:01	09/13/24 07:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*35 - 166*	*09/10/24 17:01*	*09/13/24 07:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/10/24 17:01	09/13/24 07:40	1
Ethylbenzene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 07:40	1
Toluene	ND		0.046		mg/Kg		09/10/24 17:01	09/13/24 07:40	1
Xylenes, Total	ND		0.093		mg/Kg		09/10/24 17:01	09/13/24 07:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/10/24 17:01*	*09/13/24 07:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 13:23	09/13/24 04:17	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/12/24 13:23*	*09/13/24 04:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95**		60		mg/Kg		09/13/24 09:02	09/13/24 13:36	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-69 3'

Date Collected: 09/07/24 11:40
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-61

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 17:01	09/13/24 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*09/10/24 17:01*	*09/13/24 08:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 17:01	09/13/24 08:02	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 08:02	1
Toluene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 08:02	1
Xylenes, Total	ND		0.097		mg/Kg		09/10/24 17:01	09/13/24 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*09/10/24 17:01*	*09/13/24 08:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/12/24 13:23	09/13/24 04:29	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/12/24 13:23	09/13/24 04:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*09/12/24 13:23*	*09/13/24 04:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**240**		60		mg/Kg		09/13/24 09:02	09/13/24 14:15	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-70 3'

Date Collected: 09/07/24 11:40
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-62

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/13/24 08:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*35 - 166*	*09/10/24 17:01*	*09/13/24 08:24*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/13/24 08:24	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 08:24	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/13/24 08:24	1
Xylenes, Total	ND		0.099		mg/Kg		09/10/24 17:01	09/13/24 08:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/10/24 17:01*	*09/13/24 08:24*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/12/24 13:23	09/13/24 04:41	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/12/24 13:23*	*09/13/24 04:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		09/13/24 09:02	09/13/24 14:53	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-71 3'
Lab Sample ID: 885-11427-63
Date Collected: 09/07/24 11:40
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/10/24 17:01	09/13/24 08:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 17:01*	*09/13/24 08:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/10/24 17:01	09/13/24 08:45	1
Ethylbenzene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 08:45	1
Toluene	ND		0.049		mg/Kg		09/10/24 17:01	09/13/24 08:45	1
Xylenes, Total	ND		0.098		mg/Kg		09/10/24 17:01	09/13/24 08:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*48 - 145*	*09/10/24 17:01*	*09/13/24 08:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		09/12/24 13:23	09/13/24 04:53	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/12/24 13:23	09/13/24 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*09/12/24 13:23*	*09/13/24 04:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**300**		60		mg/Kg		09/13/24 09:02	09/13/24 15:06	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-72 3'
Date Collected: 09/07/24 11:45
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-64
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/11/24 11:28	09/14/24 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)				*09/11/24 11:28*	*09/14/24 02:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/11/24 11:28	09/14/24 02:39	1
Ethylbenzene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 02:39	1
Toluene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 02:39	1
Xylenes, Total	ND		0.097		mg/Kg		09/11/24 11:28	09/14/24 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/11/24 11:28*	*09/14/24 02:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		09/12/24 13:23	09/13/24 05:05	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		09/12/24 13:23	09/13/24 05:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*09/12/24 13:23*	*09/13/24 05:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		09/13/24 09:02	09/13/24 15:19	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-73 3'
Date Collected: 09/07/24 11:45
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-65
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/11/24 11:28	09/14/24 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)				*09/11/24 11:28*	*09/14/24 03:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/11/24 11:28	09/14/24 03:44	1
Ethylbenzene	ND		0.047		mg/Kg		09/11/24 11:28	09/14/24 03:44	1
Toluene	ND		0.047		mg/Kg		09/11/24 11:28	09/14/24 03:44	1
Xylenes, Total	ND		0.094		mg/Kg		09/11/24 11:28	09/14/24 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/11/24 11:28*	*09/14/24 03:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/12/24 13:23	09/13/24 05:17	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/12/24 13:23	09/13/24 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/12/24 13:23*	*09/13/24 05:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		60		mg/Kg		09/13/24 09:02	09/13/24 15:32	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-74 3'
Lab Sample ID: 885-11427-66
Date Collected: 09/07/24 11:45
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/11/24 11:28	09/14/24 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)				*09/11/24 11:28*	*09/14/24 04:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/11/24 11:28	09/14/24 04:49	1
Ethylbenzene	ND		0.049		mg/Kg		09/11/24 11:28	09/14/24 04:49	1
Toluene	ND		0.049		mg/Kg		09/11/24 11:28	09/14/24 04:49	1
Xylenes, Total	ND		0.098		mg/Kg		09/11/24 11:28	09/14/24 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*09/11/24 11:28*	*09/14/24 04:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/12/24 13:23	09/13/24 05:29	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/12/24 13:23	09/13/24 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*09/12/24 13:23*	*09/13/24 05:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		09/13/24 09:02	09/13/24 15:45	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-76 3'
Lab Sample ID: 885-11427-67
Date Collected: 09/07/24 11:50
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/11/24 11:28	09/14/24 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)				*09/11/24 11:28*	*09/14/24 05:11*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/11/24 11:28	09/14/24 05:11	1
Ethylbenzene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 05:11	1
Toluene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 05:11	1
Xylenes, Total	ND		0.096		mg/Kg		09/11/24 11:28	09/14/24 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/11/24 11:28*	*09/14/24 05:11*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/12/24 13:23	09/13/24 05:41	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/12/24 13:23	09/13/24 05:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*09/12/24 13:23*	*09/13/24 05:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94**		60		mg/Kg		09/13/24 09:02	09/13/24 15:58	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Client Sample ID: BS24-78 3'

Date Collected: 09/07/24 11:50
Date Received: 09/10/24 08:05

Lab Sample ID: 885-11427-68

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/11/24 11:28	09/14/24 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)				*09/11/24 11:28*	*09/14/24 05:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/11/24 11:28	09/14/24 05:33	1
Ethylbenzene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 05:33	1
Toluene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 05:33	1
Xylenes, Total	ND		0.097		mg/Kg		09/11/24 11:28	09/14/24 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*09/11/24 11:28*	*09/14/24 05:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/12/24 13:23	09/13/24 05:53	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/12/24 13:23	09/13/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*09/12/24 13:23*	*09/13/24 05:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**		60		mg/Kg		09/13/24 10:05	09/16/24 09:44	20

Client Sample Results

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-80 3'
Lab Sample ID: 885-11427-69
Date Collected: 09/07/24 11:50
Matrix: Solid
Date Received: 09/10/24 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/11/24 11:28	09/14/24 05:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)				*09/11/24 11:28*	*09/14/24 05:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/11/24 11:28	09/14/24 05:55	1
Ethylbenzene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 05:55	1
Toluene	ND		0.048		mg/Kg		09/11/24 11:28	09/14/24 05:55	1
Xylenes, Total	ND		0.095		mg/Kg		09/11/24 11:28	09/14/24 05:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/11/24 11:28*	*09/14/24 05:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/12/24 13:23	09/13/24 06:05	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/12/24 13:23	09/13/24 06:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*09/12/24 13:23*	*09/13/24 06:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		09/13/24 10:05	09/16/24 09:59	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-11772/1-A
Matrix: Solid
Analysis Batch: 12204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11772

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/06/24 14:18	09/12/24 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/06/24 14:18*	*09/12/24 11:30*	*1*

Lab Sample ID: MB 885-11936/1-A
Matrix: Solid
Analysis Batch: 12112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11936

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 11:11	09/11/24 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*35 - 166*	*09/10/24 11:11*	*09/11/24 11:30*	*1*

Lab Sample ID: LCS 885-11936/2-A
Matrix: Solid
Analysis Batch: 12112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11936

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	28.3		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*221*		*35 - 166*

Lab Sample ID: MB 885-11951/1-A
Matrix: Solid
Analysis Batch: 12204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11951

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 12:17	09/12/24 21:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/10/24 12:17*	*09/12/24 21:17*	*1*

Lab Sample ID: LCS 885-11951/2-A
Matrix: Solid
Analysis Batch: 12204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11951

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.1		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*214*		*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-11427-3 MS
Matrix: Solid
Analysis Batch: 12204

Client Sample ID: BS24-03 3'
Prep Type: Total/NA
Prep Batch: 11951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.9	24.4		mg/Kg		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*215*		*35 - 166*

Lab Sample ID: 885-11427-3 MSD
Matrix: Solid
Analysis Batch: 12204

Client Sample ID: BS24-03 3'
Prep Type: Total/NA
Prep Batch: 11951

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.8	23.5		mg/Kg		95	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*213*		*35 - 166*

Lab Sample ID: MB 885-11965/1-A
Matrix: Solid
Analysis Batch: 12298

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11965

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 15:41	09/14/24 00:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/10/24 15:41*	*09/14/24 00:49*	*1*

Lab Sample ID: LCS 885-11965/2-A
Matrix: Solid
Analysis Batch: 12298

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11965

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]			25.0	24.3		mg/Kg		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*211*		*35 - 166*

Lab Sample ID: 885-11427-24 MS
Matrix: Solid
Analysis Batch: 12298

Client Sample ID: BS24-24 3'
Prep Type: Total/NA
Prep Batch: 11965

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.8	24.2		mg/Kg		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*212*		*35 - 166*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: 885-11427-24 MSD
Matrix: Solid
Analysis Batch: 12298

Client Sample ID: BS24-24 3'
Prep Type: Total/NA
Prep Batch: 11965

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		25.0	24.2		mg/Kg		97	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*215*		*35 - 166*

Lab Sample ID: MB 885-11973/1-A
Matrix: Solid
Analysis Batch: 12218

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11973

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/10/24 17:01	09/12/24 23:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*09/10/24 17:01*	*09/12/24 23:41*	*1*

Lab Sample ID: LCS 885-11973/2-A
Matrix: Solid
Analysis Batch: 12218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11973

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	24.9		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*221*		*35 - 166*

Lab Sample ID: 885-11427-44 MS
Matrix: Solid
Analysis Batch: 12218

Client Sample ID: BS24-48 3'
Prep Type: Total/NA
Prep Batch: 11973

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.8	25.8		mg/Kg		104	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*218*		*35 - 166*

Lab Sample ID: MB 885-12010/1-A
Matrix: Solid
Analysis Batch: 12296

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12010

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/11/24 11:28	09/14/24 02:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)				*09/11/24 11:28*	*09/14/24 02:17*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 885-12010/2-A
Matrix: Solid
Analysis Batch: 12296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12010

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.6		mg/Kg		106	70 - 130		

Lab Sample ID: 885-11427-64 MS
Matrix: Solid
Analysis Batch: 12296

Client Sample ID: BS24-72 3'
Prep Type: Total/NA
Prep Batch: 12010

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.2	25.7		mg/Kg		106	70 - 130		

Lab Sample ID: 885-11427-64 MSD
Matrix: Solid
Analysis Batch: 12296

Client Sample ID: BS24-72 3'
Prep Type: Total/NA
Prep Batch: 12010

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.2	26.2		mg/Kg		108	70 - 130	2	20

Lab Sample ID: 885-11427-44 MSD
Matrix: Solid
Analysis Batch: 12218

Client Sample ID: BS24-48 3'
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*220*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-11936/1-A
Matrix: Solid
Analysis Batch: 12114

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11936

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 11:11	09/11/24 11:30	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 11:11	09/11/24 11:30	1
Toluene	ND		0.050		mg/Kg		09/10/24 11:11	09/11/24 11:30	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 11:11	09/11/24 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/10/24 11:11*	*09/11/24 11:30*	*1*

Lab Sample ID: LCS 885-11936/3-A
Matrix: Solid
Analysis Batch: 12114

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11936

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.02		mg/Kg		102	70 - 130		
Ethylbenzene			1.00	1.04		mg/Kg		104	70 - 130		
m,p-Xylene			2.00	2.07		mg/Kg		103	70 - 130		
o-Xylene			1.00	1.01		mg/Kg		101	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-11936/3-A
Matrix: Solid
Analysis Batch: 12114

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11936

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Toluene			1.00	1.03		mg/Kg		103	70 - 130		
Xylenes, Total			3.00	3.08		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: MB 885-11951/1-A
Matrix: Solid
Analysis Batch: 12205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11951

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 12:17	09/12/24 21:17	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 12:17	09/12/24 21:17	1
Toluene	ND		0.050		mg/Kg		09/10/24 12:17	09/12/24 21:17	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 12:17	09/12/24 21:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 12:17*	*09/12/24 21:17*	*1*

Lab Sample ID: LCS 885-11951/3-A
Matrix: Solid
Analysis Batch: 12205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11951

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.902		mg/Kg		90	70 - 130		
Ethylbenzene			1.00	0.840		mg/Kg		84	70 - 130		
m,p-Xylene			2.00	1.68		mg/Kg		84	70 - 130		
o-Xylene			1.00	0.797		mg/Kg		80	70 - 130		
Toluene			1.00	0.861		mg/Kg		86	70 - 130		
Xylenes, Total			3.00	2.48		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*

Lab Sample ID: 885-11427-4 MS
Matrix: Solid
Analysis Batch: 12205

Client Sample ID: BS24-04 3'
Prep Type: Total/NA
Prep Batch: 11951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.961	0.909		mg/Kg		95	70 - 130		
Ethylbenzene	ND		0.961	0.866		mg/Kg		90	70 - 130		
m,p-Xylene	ND		1.92	1.73		mg/Kg		89	70 - 130		
o-Xylene	ND		0.961	0.823		mg/Kg		86	70 - 130		
Toluene	ND		0.961	0.880		mg/Kg		90	70 - 130		
Xylenes, Total	ND		2.88	2.55		mg/Kg		88	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-11427-4 MS
Matrix: Solid
Analysis Batch: 12205

Client Sample ID: BS24-04 3'
Prep Type: Total/NA
Prep Batch: 11951

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: 885-11427-4 MSD
Matrix: Solid
Analysis Batch: 12205

Client Sample ID: BS24-04 3'
Prep Type: Total/NA
Prep Batch: 11951

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.951	0.875		mg/Kg		92	70 - 130	4	20
Ethylbenzene	ND		0.951	0.811		mg/Kg		85	70 - 130	6	20
m,p-Xylene	ND		1.90	1.64		mg/Kg		85	70 - 130	5	20
o-Xylene	ND		0.951	0.789		mg/Kg		83	70 - 130	4	20
Toluene	ND		0.951	0.824		mg/Kg		85	70 - 130	7	20
Xylenes, Total	ND		2.85	2.43		mg/Kg		84	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*

Lab Sample ID: MB 885-11965/1-A
Matrix: Solid
Analysis Batch: 12299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11965

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 15:41	09/14/24 00:49	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 00:49	1
Toluene	ND		0.050		mg/Kg		09/10/24 15:41	09/14/24 00:49	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 15:41	09/14/24 00:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*09/10/24 15:41*	*09/14/24 00:49*	*1*

Lab Sample ID: LCS 885-11965/3-A
Matrix: Solid
Analysis Batch: 12299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11965

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.917		mg/Kg		92	70 - 130		
Ethylbenzene			1.00	0.834		mg/Kg		83	70 - 130		
m,p-Xylene			2.00	1.68		mg/Kg		84	70 - 130		
o-Xylene			1.00	0.803		mg/Kg		80	70 - 130		
Toluene			1.00	0.864		mg/Kg		86	70 - 130		
Xylenes, Total			3.00	2.48		mg/Kg		83	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-11427-25 MS
Matrix: Solid
Analysis Batch: 12299

Client Sample ID: BS24-25 3'
Prep Type: Total/NA
Prep Batch: 11965

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.995	0.859		mg/Kg		86	70 - 130
Ethylbenzene	ND		0.995	0.795		mg/Kg		80	70 - 130
m,p-Xylene	ND		1.99	1.62		mg/Kg		80	70 - 130
o-Xylene	ND		0.995	0.766		mg/Kg		77	70 - 130
Toluene	ND		0.995	0.812		mg/Kg		82	70 - 130
Xylenes, Total	ND		2.99	2.39		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: 885-11427-25 MSD
Matrix: Solid
Analysis Batch: 12299

Client Sample ID: BS24-25 3'
Prep Type: Total/NA
Prep Batch: 11965

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.999	0.881		mg/Kg		88	70 - 130	3	20
Ethylbenzene	ND		0.999	0.818		mg/Kg		82	70 - 130	3	20
m,p-Xylene	ND		2.00	1.66		mg/Kg		82	70 - 130	2	20
o-Xylene	ND		0.999	0.780		mg/Kg		78	70 - 130	2	20
Toluene	ND		0.999	0.833		mg/Kg		83	70 - 130	2	20
Xylenes, Total	ND		3.00	2.44		mg/Kg		81	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: MB 885-11973/1-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11973

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/10/24 17:01	09/12/24 23:41	1
Ethylbenzene	ND		0.050		mg/Kg		09/10/24 17:01	09/12/24 23:41	1
Toluene	ND		0.050		mg/Kg		09/10/24 17:01	09/12/24 23:41	1
Xylenes, Total	ND		0.10		mg/Kg		09/10/24 17:01	09/12/24 23:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*48 - 145*	*09/10/24 17:01*	*09/12/24 23:41*	*1*

Lab Sample ID: LCS 885-11973/3-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11973

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			1.00	1.06		mg/Kg		106	70 - 130
Ethylbenzene			1.00	1.06		mg/Kg		106	70 - 130
m,p-Xylene			2.00	2.11		mg/Kg		105	70 - 130
o-Xylene			1.00	1.03		mg/Kg		103	70 - 130
Toluene			1.00	1.08		mg/Kg		108	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-11973/3-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11973

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Xylenes, Total			3.00	3.14		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-11427-45 MS
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: BS24-50 3'
Prep Type: Total/NA
Prep Batch: 11973

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.996	1.01		mg/Kg		101	70 - 130		
Ethylbenzene	ND		0.996	1.02		mg/Kg		103	70 - 130		
m,p-Xylene	ND		1.99	2.03		mg/Kg		102	70 - 130		
o-Xylene	ND		0.996	1.00		mg/Kg		100	70 - 130		
Toluene	ND		0.996	1.02		mg/Kg		102	70 - 130		
Xylenes, Total	ND		2.99	3.03		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-11427-45 MSD
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: BS24-50 3'
Prep Type: Total/NA
Prep Batch: 11973

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		1.00	1.02		mg/Kg		102	70 - 130	1	20
Ethylbenzene	ND		1.00	1.01		mg/Kg		101	70 - 130	1	20
m,p-Xylene	ND		2.00	2.02		mg/Kg		101	70 - 130	1	20
o-Xylene	ND		1.00	1.00		mg/Kg		100	70 - 130	0	20
Toluene	ND		1.00	1.02		mg/Kg		102	70 - 130	0	20
Xylenes, Total	ND		3.00	3.02		mg/Kg		101	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*

Lab Sample ID: MB 885-12010/1-A
Matrix: Solid
Analysis Batch: 12297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12010

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/11/24 11:28	09/14/24 02:17	1
Ethylbenzene	ND		0.050		mg/Kg		09/11/24 11:28	09/14/24 02:17	1
Toluene	ND		0.050		mg/Kg		09/11/24 11:28	09/14/24 02:17	1
Xylenes, Total	ND		0.10		mg/Kg		09/11/24 11:28	09/14/24 02:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/11/24 11:28*	*09/14/24 02:17*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-12010/3-A
Matrix: Solid
Analysis Batch: 12297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12010

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.05		mg/Kg		105	70 - 130		
Ethylbenzene			1.00	1.06		mg/Kg		106	70 - 130		
m,p-Xylene			2.00	2.12		mg/Kg		106	70 - 130		
o-Xylene			1.00	1.04		mg/Kg		104	70 - 130		
Toluene			1.00	1.07		mg/Kg		107	70 - 130		
Xylenes, Total			3.00	3.16		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*

Lab Sample ID: 885-11427-65 MS
Matrix: Solid
Analysis Batch: 12297

Client Sample ID: BS24-73 3'
Prep Type: Total/NA
Prep Batch: 12010

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.942	1.01		mg/Kg		108	70 - 130		
Ethylbenzene	ND		0.942	1.03		mg/Kg		109	70 - 130		
m,p-Xylene	ND		1.88	2.06		mg/Kg		109	70 - 130		
o-Xylene	ND		0.942	1.02		mg/Kg		108	70 - 130		
Toluene	ND		0.942	1.03		mg/Kg		109	70 - 130		
Xylenes, Total	ND		2.82	3.08		mg/Kg		109	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-11427-65 MSD
Matrix: Solid
Analysis Batch: 12297

Client Sample ID: BS24-73 3'
Prep Type: Total/NA
Prep Batch: 12010

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.940	0.957		mg/Kg		102	70 - 130	6	20
Ethylbenzene	ND		0.940	0.983		mg/Kg		105	70 - 130	4	20
m,p-Xylene	ND		1.88	1.97		mg/Kg		105	70 - 130	4	20
o-Xylene	ND		0.940	0.981		mg/Kg		104	70 - 130	4	20
Toluene	ND		0.940	0.978		mg/Kg		104	70 - 130	5	20
Xylenes, Total	ND		2.82	2.95		mg/Kg		105	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-12008/1-A
Matrix: Solid
Analysis Batch: 12013

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12008

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/11/24 11:22	09/12/24 05:09	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-12008/1-A
Matrix: Solid
Analysis Batch: 12013

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12008

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 11:22	09/12/24 05:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*09/11/24 11:22*	*09/12/24 05:09*	*1*

Lab Sample ID: LCS 885-12008/2-A
Matrix: Solid
Analysis Batch: 12013

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12008

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	58.7		mg/Kg		117	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*

Lab Sample ID: 885-11427-7 MS
Matrix: Solid
Analysis Batch: 12013

Client Sample ID: BS24-07 3'
Prep Type: Total/NA
Prep Batch: 12008

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		45.7	55.2		mg/Kg		121	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*

Lab Sample ID: 885-11427-7 MSD
Matrix: Solid
Analysis Batch: 12013

Client Sample ID: BS24-07 3'
Prep Type: Total/NA
Prep Batch: 12008

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.1	57.4		mg/Kg		122	44 - 136	4	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*

Lab Sample ID: MB 885-12051/1-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12051

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/11/24 13:59	09/12/24 11:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 13:59	09/12/24 11:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*	*09/11/24 13:59*	*09/12/24 11:53*	*1*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCS 885-12051/2-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12051

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	50.1		mg/Kg		100	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*

Lab Sample ID: 885-11427-29 MS
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-30 3'
Prep Type: Total/NA
Prep Batch: 12051

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		49.7	43.4		mg/Kg		87	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*

Lab Sample ID: 885-11427-29 MSD
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-30 3'
Prep Type: Total/NA
Prep Batch: 12051

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.6	52.2		mg/Kg		105	44 - 136	18	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*

Lab Sample ID: MB 885-12078/1-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12078

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/11/24 15:53	09/13/24 06:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/11/24 15:53	09/13/24 06:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*	*09/11/24 15:53*	*09/13/24 06:53*	*1*

Lab Sample ID: LCS 885-12078/2-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12078

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	39.3		mg/Kg		79	60 - 135		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-12078/2-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12078

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	82		62 - 134

Lab Sample ID: 885-11427-8 MS
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-08 3'
Prep Type: Total/NA
Prep Batch: 12078

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		47.4	38.4		mg/Kg		81	44 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	82		62 - 134

Lab Sample ID: 885-11427-8 MSD
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-08 3'
Prep Type: Total/NA
Prep Batch: 12078

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.4	43.9		mg/Kg		95	44 - 136	13	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	96		62 - 134

Lab Sample ID: MB 885-12101/1-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12101

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/12/24 09:09	09/12/24 17:21	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 09:09	09/12/24 17:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	90		62 - 134	09/12/24 09:09	09/12/24 17:21	1

Lab Sample ID: LCS 885-12101/2-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12101

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	46.6		mg/Kg		93	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	103		62 - 134

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 885-11427-49 MS
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-55 3'
Prep Type: Total/NA
Prep Batch: 12101

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		49.0	39.3		mg/Kg		80	44 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*

Lab Sample ID: 885-11427-49 MSD
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-55 3'
Prep Type: Total/NA
Prep Batch: 12101

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.1	40.7		mg/Kg		88	44 - 136	4	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*

Lab Sample ID: MB 885-12134/1-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12134

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/12/24 13:23	09/13/24 01:40	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/12/24 13:23	09/13/24 01:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*09/12/24 13:23*	*09/13/24 01:40*	*1*

Lab Sample ID: LCS 885-12134/2-A
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12134

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	43.2		mg/Kg		86	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Lab Sample ID: 885-11427-69 MS
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-80 3'
Prep Type: Total/NA
Prep Batch: 12134

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		47.3	41.2		mg/Kg		87	44 - 136

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 885-11427-69 MS
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-80 3'
Prep Type: Total/NA
Prep Batch: 12134

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*

Lab Sample ID: 885-11427-69 MSD
Matrix: Solid
Analysis Batch: 12120

Client Sample ID: BS24-80 3'
Prep Type: Total/NA
Prep Batch: 12134

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		48.5	43.6		mg/Kg		90	44 - 136	6	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-12047/1-A
Matrix: Solid
Analysis Batch: 12093

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12047

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/11/24 13:14	09/11/24 19:23	1

Lab Sample ID: LCS 885-12047/2-A
Matrix: Solid
Analysis Batch: 12093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12047

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	32.9		mg/Kg		110	90 - 110		

Lab Sample ID: MB 885-12094/1-A
Matrix: Solid
Analysis Batch: 12166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12094

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/12/24 08:07	09/12/24 08:46	1

Lab Sample ID: LCS 885-12094/2-A
Matrix: Solid
Analysis Batch: 12166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12094

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	32.1		mg/Kg		107	90 - 110		

Lab Sample ID: 885-11427-7 MS
Matrix: Solid
Analysis Batch: 12166

Client Sample ID: BS24-07 3'
Prep Type: Total/NA
Prep Batch: 12094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	180		29.9	216	4	mg/Kg		109	50 - 150		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-11427-7 MSD
Matrix: Solid
Analysis Batch: 12166

Client Sample ID: BS24-07 3'
Prep Type: Total/NA
Prep Batch: 12094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	180		29.9	221	4	mg/Kg		126	50 - 150	2	20

Lab Sample ID: 885-11427-8 MS
Matrix: Solid
Analysis Batch: 12166

Client Sample ID: BS24-08 3'
Prep Type: Total/NA
Prep Batch: 12094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	160		30.2	183	4	mg/Kg		77	50 - 150

Lab Sample ID: 885-11427-8 MSD
Matrix: Solid
Analysis Batch: 12166

Client Sample ID: BS24-08 3'
Prep Type: Total/NA
Prep Batch: 12094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	160		29.8	192	4	mg/Kg		106	50 - 150	5	20

Lab Sample ID: MB 885-12096/1-A
Matrix: Solid
Analysis Batch: 12139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12096

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/12/24 08:39	09/12/24 14:12	1

Lab Sample ID: LCS 885-12096/2-A
Matrix: Solid
Analysis Batch: 12139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12096

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	29.1		mg/Kg		97	90 - 110

Lab Sample ID: MB 885-12143/1-A
Matrix: Solid
Analysis Batch: 12139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12143

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/12/24 14:50	09/12/24 21:04	1

Lab Sample ID: LCS 885-12143/2-A
Matrix: Solid
Analysis Batch: 12139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	30.4		mg/Kg		101	90 - 110

Lab Sample ID: 885-11427-30 MS
Matrix: Solid
Analysis Batch: 12139

Client Sample ID: BS24-31 3'
Prep Type: Total/NA
Prep Batch: 12143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	110		30.1	141		mg/Kg		95	50 - 150

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 885-11427-30 MSD — **Client Sample ID: BS24-31 3'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12139 — **Prep Batch: 12143**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		30.1	139		mg/Kg		89	50 - 150	1	20

Lab Sample ID: 885-11427-40 MS — **Client Sample ID: BS24-43 3'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12139 — **Prep Batch: 12143**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		30.1	77.4		mg/Kg		NC	50 - 150

Lab Sample ID: 885-11427-40 MSD — **Client Sample ID: BS24-43 3'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12139 — **Prep Batch: 12143**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		30.1	80.3		mg/Kg		NC	50 - 150	4	20

Lab Sample ID: MB 885-12203/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12227 — **Prep Batch: 12203**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/13/24 09:02	09/13/24 09:45	1

Lab Sample ID: LCS 885-12203/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12227 — **Prep Batch: 12203**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	31.7		mg/Kg		106	90 - 110

Lab Sample ID: 885-11427-50 MS — **Client Sample ID: BS24-56 3'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12227 — **Prep Batch: 12203**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	190		29.9	217	4	mg/Kg		83	50 - 150

Lab Sample ID: 885-11427-50 MSD — **Client Sample ID: BS24-56 3'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12227 — **Prep Batch: 12203**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	190		30.1	225	4	mg/Kg		109	50 - 150	4	20

Lab Sample ID: 885-11427-60 MS — **Client Sample ID: BS24-68 3'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12227 — **Prep Batch: 12203**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	95		29.9	122		mg/Kg		92	50 - 150

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 885-11427-60 MSD
Matrix: Solid
Analysis Batch: 12227

Client Sample ID: BS24-68 3'
Prep Type: Total/NA
Prep Batch: 12203

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	95		30.1	124		mg/Kg		97	50 - 150	1	20

Lab Sample ID: MB 885-12213/1-A
Matrix: Solid
Analysis Batch: 12227

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12213

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/13/24 10:05	09/13/24 16:10	1

Lab Sample ID: MB 885-12213/1-A
Matrix: Solid
Analysis Batch: 12355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12213

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/13/24 10:05	09/16/24 09:13	1

Lab Sample ID: LCS 885-12213/2-A
Matrix: Solid
Analysis Batch: 12355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12213

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	30.6		mg/Kg		102	90 - 110		

QC Association Summary

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

GC VOA

Prep Batch: 11772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-11772/1-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-1	BS24-01 3'	Total/NA	Solid	5030C	
885-11427-2	BS24-02 3'	Total/NA	Solid	5030C	
MB 885-11936/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-11936/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-11936/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 11951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-3	BS24-03 3'	Total/NA	Solid	5030C	
885-11427-4	BS24-04 3'	Total/NA	Solid	5030C	
885-11427-5	BS24-05 3'	Total/NA	Solid	5030C	
885-11427-6	BS24-06 3'	Total/NA	Solid	5030C	
885-11427-7	BS24-07 3'	Total/NA	Solid	5030C	
885-11427-8	BS24-08 3'	Total/NA	Solid	5030C	
885-11427-9	BS24-09 3'	Total/NA	Solid	5030C	
885-11427-10	BS24-10 3'	Total/NA	Solid	5030C	
885-11427-11	BS24-11 3'	Total/NA	Solid	5030C	
885-11427-12	BS24-12 3'	Total/NA	Solid	5030C	
885-11427-13	BS24-13 3'	Total/NA	Solid	5030C	
885-11427-14	BS24-14 3'	Total/NA	Solid	5030C	
885-11427-15	BS24-15 3'	Total/NA	Solid	5030C	
885-11427-16	BS24-16 3'	Total/NA	Solid	5030C	
885-11427-17	BS24-17 3'	Total/NA	Solid	5030C	
885-11427-18	BS24-18 3'	Total/NA	Solid	5030C	
885-11427-19	BS24-19 3'	Total/NA	Solid	5030C	
885-11427-20	BS24-20 3'	Total/NA	Solid	5030C	
885-11427-21	BS24-21 3'	Total/NA	Solid	5030C	
885-11427-23	BS24-23 3'	Total/NA	Solid	5030C	
MB 885-11951/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-11951/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-11951/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-11427-3 MS	BS24-03 3'	Total/NA	Solid	5030C	
885-11427-3 MSD	BS24-03 3'	Total/NA	Solid	5030C	
885-11427-4 MS	BS24-04 3'	Total/NA	Solid	5030C	
885-11427-4 MSD	BS24-04 3'	Total/NA	Solid	5030C	

Prep Batch: 11965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-24	BS24-24 3'	Total/NA	Solid	5030C	
885-11427-25	BS24-25 3'	Total/NA	Solid	5030C	
885-11427-26	BS24-26 3'	Total/NA	Solid	5030C	
885-11427-27	BS24-27 3'	Total/NA	Solid	5030C	
885-11427-28	BS24-29 3'	Total/NA	Solid	5030C	
885-11427-29	BS24-30 3'	Total/NA	Solid	5030C	
885-11427-30	BS24-31 3'	Total/NA	Solid	5030C	
885-11427-31	BS24-32 3'	Total/NA	Solid	5030C	
885-11427-32	BS24-33 3'	Total/NA	Solid	5030C	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC VOA (Continued)

Prep Batch: 11965 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-33	BS24-34 3'	Total/NA	Solid	5030C	
885-11427-34	BS24-35 3'	Total/NA	Solid	5030C	
885-11427-35	BS24-36 3'	Total/NA	Solid	5030C	
885-11427-36	BS24-37 3'	Total/NA	Solid	5030C	
885-11427-37	BS24-39 3'	Total/NA	Solid	5030C	
885-11427-38	BS24-41- 3'	Total/NA	Solid	5030C	
885-11427-39	BS24-42 3'	Total/NA	Solid	5030C	
885-11427-40	BS24-43 3'	Total/NA	Solid	5030C	
885-11427-41	BS24-44 3'	Total/NA	Solid	5030C	
885-11427-42	BS24-46 3'	Total/NA	Solid	5030C	
885-11427-43	BS24-47 3'	Total/NA	Solid	5030C	
MB 885-11965/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-11965/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-11965/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-11427-24 MS	BS24-24 3'	Total/NA	Solid	5030C	
885-11427-24 MSD	BS24-24 3'	Total/NA	Solid	5030C	
885-11427-25 MS	BS24-25 3'	Total/NA	Solid	5030C	
885-11427-25 MSD	BS24-25 3'	Total/NA	Solid	5030C	

Prep Batch: 11973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-44	BS24-48 3'	Total/NA	Solid	5030C	
885-11427-45	BS24-50 3'	Total/NA	Solid	5030C	
885-11427-46	BS24-51 3'	Total/NA	Solid	5030C	
885-11427-47	BS24-52 3'	Total/NA	Solid	5030C	
885-11427-48	BS24-53 3'	Total/NA	Solid	5030C	
885-11427-49	BS24-55 3'	Total/NA	Solid	5030C	
885-11427-50	BS24-56 3'	Total/NA	Solid	5030C	
885-11427-51	BS24-57 3'	Total/NA	Solid	5030C	
885-11427-52	BS24-58 3'	Total/NA	Solid	5030C	
885-11427-53	BS24-59 3'	Total/NA	Solid	5030C	
885-11427-54	BS24-60 3'	Total/NA	Solid	5030C	
885-11427-55	BS24-61 3'	Total/NA	Solid	5030C	
885-11427-56	BS24-64 3'	Total/NA	Solid	5030C	
885-11427-57	BS24-65 3'	Total/NA	Solid	5030C	
885-11427-58	BS24-66 3'	Total/NA	Solid	5030C	
885-11427-59	BS24-67 3'	Total/NA	Solid	5030C	
885-11427-60	BS24-68 3'	Total/NA	Solid	5030C	
885-11427-61	BS24-69 3'	Total/NA	Solid	5030C	
885-11427-62	BS24-70 3'	Total/NA	Solid	5030C	
885-11427-63	BS24-71 3'	Total/NA	Solid	5030C	
MB 885-11973/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-11973/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-11973/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-11427-44 MS	BS24-48 3'	Total/NA	Solid	5030C	
885-11427-45 MS	BS24-50 3'	Total/NA	Solid	5030C	
885-11427-45 MSD	BS24-50 3'	Total/NA	Solid	5030C	

Prep Batch: 12010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-64	BS24-72 3'	Total/NA	Solid	5030C	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC VOA (Continued)

Prep Batch: 12010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-65	BS24-73 3'	Total/NA	Solid	5030C	
885-11427-66	BS24-74 3'	Total/NA	Solid	5030C	
885-11427-67	BS24-76 3'	Total/NA	Solid	5030C	
885-11427-68	BS24-78 3'	Total/NA	Solid	5030C	
885-11427-69	BS24-80 3'	Total/NA	Solid	5030C	
MB 885-12010/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12010/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12010/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-11427-64 MS	BS24-72 3'	Total/NA	Solid	5030C	
885-11427-64 MSD	BS24-72 3'	Total/NA	Solid	5030C	
885-11427-65 MS	BS24-73 3'	Total/NA	Solid	5030C	
885-11427-65 MSD	BS24-73 3'	Total/NA	Solid	5030C	

Analysis Batch: 12112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-1	BS24-01 3'	Total/NA	Solid	8015M/D	11936
885-11427-2	BS24-02 3'	Total/NA	Solid	8015M/D	11936
MB 885-11936/1-A	Method Blank	Total/NA	Solid	8015M/D	11936
LCS 885-11936/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	11936

Analysis Batch: 12114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-1	BS24-01 3'	Total/NA	Solid	8021B	11936
885-11427-2	BS24-02 3'	Total/NA	Solid	8021B	11936
MB 885-11936/1-A	Method Blank	Total/NA	Solid	8021B	11936
LCS 885-11936/3-A	Lab Control Sample	Total/NA	Solid	8021B	11936

Analysis Batch: 12204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-3	BS24-03 3'	Total/NA	Solid	8015M/D	11951
885-11427-4	BS24-04 3'	Total/NA	Solid	8015M/D	11951
885-11427-5	BS24-05 3'	Total/NA	Solid	8015M/D	11951
885-11427-6	BS24-06 3'	Total/NA	Solid	8015M/D	11951
885-11427-7	BS24-07 3'	Total/NA	Solid	8015M/D	11951
885-11427-8	BS24-08 3'	Total/NA	Solid	8015M/D	11951
885-11427-9	BS24-09 3'	Total/NA	Solid	8015M/D	11951
885-11427-10	BS24-10 3'	Total/NA	Solid	8015M/D	11951
885-11427-11	BS24-11 3'	Total/NA	Solid	8015M/D	11951
885-11427-12	BS24-12 3'	Total/NA	Solid	8015M/D	11951
885-11427-13	BS24-13 3'	Total/NA	Solid	8015M/D	11951
885-11427-14	BS24-14 3'	Total/NA	Solid	8015M/D	11951
885-11427-15	BS24-15 3'	Total/NA	Solid	8015M/D	11951
885-11427-16	BS24-16 3'	Total/NA	Solid	8015M/D	11951
885-11427-17	BS24-17 3'	Total/NA	Solid	8015M/D	11951
885-11427-18	BS24-18 3'	Total/NA	Solid	8015M/D	11951
885-11427-19	BS24-19 3'	Total/NA	Solid	8015M/D	11951
885-11427-20	BS24-20 3'	Total/NA	Solid	8015M/D	11951
885-11427-21	BS24-21 3'	Total/NA	Solid	8015M/D	11951
885-11427-23	BS24-23 3'	Total/NA	Solid	8015M/D	11951
MB 885-11772/1-A	Method Blank	Total/NA	Solid	8015M/D	11772
MB 885-11951/1-A	Method Blank	Total/NA	Solid	8015M/D	11951

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC VOA (Continued)

Analysis Batch: 12204 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-11951/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	11951
885-11427-3 MS	BS24-03 3'	Total/NA	Solid	8015M/D	11951
885-11427-3 MSD	BS24-03 3'	Total/NA	Solid	8015M/D	11951

Analysis Batch: 12205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-3	BS24-03 3'	Total/NA	Solid	8021B	11951
885-11427-4	BS24-04 3'	Total/NA	Solid	8021B	11951
885-11427-5	BS24-05 3'	Total/NA	Solid	8021B	11951
885-11427-6	BS24-06 3'	Total/NA	Solid	8021B	11951
885-11427-7	BS24-07 3'	Total/NA	Solid	8021B	11951
885-11427-8	BS24-08 3'	Total/NA	Solid	8021B	11951
885-11427-9	BS24-09 3'	Total/NA	Solid	8021B	11951
885-11427-10	BS24-10 3'	Total/NA	Solid	8021B	11951
885-11427-11	BS24-11 3'	Total/NA	Solid	8021B	11951
885-11427-12	BS24-12 3'	Total/NA	Solid	8021B	11951
885-11427-13	BS24-13 3'	Total/NA	Solid	8021B	11951
885-11427-14	BS24-14 3'	Total/NA	Solid	8021B	11951
885-11427-15	BS24-15 3'	Total/NA	Solid	8021B	11951
885-11427-16	BS24-16 3'	Total/NA	Solid	8021B	11951
885-11427-17	BS24-17 3'	Total/NA	Solid	8021B	11951
885-11427-18	BS24-18 3'	Total/NA	Solid	8021B	11951
885-11427-19	BS24-19 3'	Total/NA	Solid	8021B	11951
885-11427-20	BS24-20 3'	Total/NA	Solid	8021B	11951
885-11427-21	BS24-21 3'	Total/NA	Solid	8021B	11951
885-11427-23	BS24-23 3'	Total/NA	Solid	8021B	11951
MB 885-11951/1-A	Method Blank	Total/NA	Solid	8021B	11951
LCS 885-11951/3-A	Lab Control Sample	Total/NA	Solid	8021B	11951
885-11427-4 MS	BS24-04 3'	Total/NA	Solid	8021B	11951
885-11427-4 MSD	BS24-04 3'	Total/NA	Solid	8021B	11951

Analysis Batch: 12218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-44	BS24-48 3'	Total/NA	Solid	8015M/D	11973
885-11427-45	BS24-50 3'	Total/NA	Solid	8015M/D	11973
885-11427-46	BS24-51 3'	Total/NA	Solid	8015M/D	11973
885-11427-47	BS24-52 3'	Total/NA	Solid	8015M/D	11973
885-11427-48	BS24-53 3'	Total/NA	Solid	8015M/D	11973
885-11427-49	BS24-55 3'	Total/NA	Solid	8015M/D	11973
885-11427-50	BS24-56 3'	Total/NA	Solid	8015M/D	11973
885-11427-51	BS24-57 3'	Total/NA	Solid	8015M/D	11973
885-11427-52	BS24-58 3'	Total/NA	Solid	8015M/D	11973
885-11427-53	BS24-59 3'	Total/NA	Solid	8015M/D	11973
885-11427-54	BS24-60 3'	Total/NA	Solid	8015M/D	11973
885-11427-55	BS24-61 3'	Total/NA	Solid	8015M/D	11973
885-11427-56	BS24-64 3'	Total/NA	Solid	8015M/D	11973
885-11427-57	BS24-65 3'	Total/NA	Solid	8015M/D	11973
885-11427-58	BS24-66 3'	Total/NA	Solid	8015M/D	11973
885-11427-59	BS24-67 3'	Total/NA	Solid	8015M/D	11973
885-11427-60	BS24-68 3'	Total/NA	Solid	8015M/D	11973
885-11427-61	BS24-69 3'	Total/NA	Solid	8015M/D	11973

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC VOA (Continued)

Analysis Batch: 12218 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-62	BS24-70 3'	Total/NA	Solid	8015M/D	11973
885-11427-63	BS24-71 3'	Total/NA	Solid	8015M/D	11973
MB 885-11973/1-A	Method Blank	Total/NA	Solid	8015M/D	11973
LCS 885-11973/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	11973
885-11427-44 MS	BS24-48 3'	Total/NA	Solid	8015M/D	11973
885-11427-44 MSD	BS24-48 3'	Total/NA	Solid	8015M/D	

Analysis Batch: 12220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-44	BS24-48 3'	Total/NA	Solid	8021B	11973
885-11427-45	BS24-50 3'	Total/NA	Solid	8021B	11973
885-11427-46	BS24-51 3'	Total/NA	Solid	8021B	11973
885-11427-47	BS24-52 3'	Total/NA	Solid	8021B	11973
885-11427-48	BS24-53 3'	Total/NA	Solid	8021B	11973
885-11427-49	BS24-55 3'	Total/NA	Solid	8021B	11973
885-11427-50	BS24-56 3'	Total/NA	Solid	8021B	11973
885-11427-51	BS24-57 3'	Total/NA	Solid	8021B	11973
885-11427-52	BS24-58 3'	Total/NA	Solid	8021B	11973
885-11427-53	BS24-59 3'	Total/NA	Solid	8021B	11973
885-11427-54	BS24-60 3'	Total/NA	Solid	8021B	11973
885-11427-55	BS24-61 3'	Total/NA	Solid	8021B	11973
885-11427-56	BS24-64 3'	Total/NA	Solid	8021B	11973
885-11427-57	BS24-65 3'	Total/NA	Solid	8021B	11973
885-11427-58	BS24-66 3'	Total/NA	Solid	8021B	11973
885-11427-59	BS24-67 3'	Total/NA	Solid	8021B	11973
885-11427-60	BS24-68 3'	Total/NA	Solid	8021B	11973
885-11427-61	BS24-69 3'	Total/NA	Solid	8021B	11973
885-11427-62	BS24-70 3'	Total/NA	Solid	8021B	11973
885-11427-63	BS24-71 3'	Total/NA	Solid	8021B	11973
MB 885-11973/1-A	Method Blank	Total/NA	Solid	8021B	11973
LCS 885-11973/3-A	Lab Control Sample	Total/NA	Solid	8021B	11973
885-11427-45 MS	BS24-50 3'	Total/NA	Solid	8021B	11973
885-11427-45 MSD	BS24-50 3'	Total/NA	Solid	8021B	11973

Analysis Batch: 12296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-64	BS24-72 3'	Total/NA	Solid	8015M/D	12010
885-11427-65	BS24-73 3'	Total/NA	Solid	8015M/D	12010
885-11427-66	BS24-74 3'	Total/NA	Solid	8015M/D	12010
885-11427-67	BS24-76 3'	Total/NA	Solid	8015M/D	12010
885-11427-68	BS24-78 3'	Total/NA	Solid	8015M/D	12010
885-11427-69	BS24-80 3'	Total/NA	Solid	8015M/D	12010
MB 885-12010/1-A	Method Blank	Total/NA	Solid	8015M/D	12010
LCS 885-12010/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12010
885-11427-64 MS	BS24-72 3'	Total/NA	Solid	8015M/D	12010
885-11427-64 MSD	BS24-72 3'	Total/NA	Solid	8015M/D	12010

Analysis Batch: 12297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-64	BS24-72 3'	Total/NA	Solid	8021B	12010
885-11427-65	BS24-73 3'	Total/NA	Solid	8021B	12010

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC VOA (Continued)

Analysis Batch: 12297 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-66	BS24-74 3'	Total/NA	Solid	8021B	12010
885-11427-67	BS24-76 3'	Total/NA	Solid	8021B	12010
885-11427-68	BS24-78 3'	Total/NA	Solid	8021B	12010
885-11427-69	BS24-80 3'	Total/NA	Solid	8021B	12010
MB 885-12010/1-A	Method Blank	Total/NA	Solid	8021B	12010
LCS 885-12010/3-A	Lab Control Sample	Total/NA	Solid	8021B	12010
885-11427-65 MS	BS24-73 3'	Total/NA	Solid	8021B	12010
885-11427-65 MSD	BS24-73 3'	Total/NA	Solid	8021B	12010

Analysis Batch: 12298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-24	BS24-24 3'	Total/NA	Solid	8015M/D	11965
885-11427-25	BS24-25 3'	Total/NA	Solid	8015M/D	11965
885-11427-26	BS24-26 3'	Total/NA	Solid	8015M/D	11965
885-11427-27	BS24-27 3'	Total/NA	Solid	8015M/D	11965
885-11427-28	BS24-29 3'	Total/NA	Solid	8015M/D	11965
885-11427-29	BS24-30 3'	Total/NA	Solid	8015M/D	11965
885-11427-30	BS24-31 3'	Total/NA	Solid	8015M/D	11965
885-11427-31	BS24-32 3'	Total/NA	Solid	8015M/D	11965
885-11427-32	BS24-33 3'	Total/NA	Solid	8015M/D	11965
885-11427-33	BS24-34 3'	Total/NA	Solid	8015M/D	11965
885-11427-34	BS24-35 3'	Total/NA	Solid	8015M/D	11965
885-11427-35	BS24-36 3'	Total/NA	Solid	8015M/D	11965
885-11427-36	BS24-37 3'	Total/NA	Solid	8015M/D	11965
885-11427-37	BS24-39 3'	Total/NA	Solid	8015M/D	11965
885-11427-38	BS24-41- 3'	Total/NA	Solid	8015M/D	11965
885-11427-39	BS24-42 3'	Total/NA	Solid	8015M/D	11965
885-11427-40	BS24-43 3'	Total/NA	Solid	8015M/D	11965
885-11427-41	BS24-44 3'	Total/NA	Solid	8015M/D	11965
885-11427-42	BS24-46 3'	Total/NA	Solid	8015M/D	11965
885-11427-43	BS24-47 3'	Total/NA	Solid	8015M/D	11965
MB 885-11965/1-A	Method Blank	Total/NA	Solid	8015M/D	11965
LCS 885-11965/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	11965
885-11427-24 MS	BS24-24 3'	Total/NA	Solid	8015M/D	11965
885-11427-24 MSD	BS24-24 3'	Total/NA	Solid	8015M/D	11965

Analysis Batch: 12299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-24	BS24-24 3'	Total/NA	Solid	8021B	11965
885-11427-25	BS24-25 3'	Total/NA	Solid	8021B	11965
885-11427-26	BS24-26 3'	Total/NA	Solid	8021B	11965
885-11427-27	BS24-27 3'	Total/NA	Solid	8021B	11965
885-11427-28	BS24-29 3'	Total/NA	Solid	8021B	11965
885-11427-29	BS24-30 3'	Total/NA	Solid	8021B	11965
885-11427-30	BS24-31 3'	Total/NA	Solid	8021B	11965
885-11427-31	BS24-32 3'	Total/NA	Solid	8021B	11965
885-11427-32	BS24-33 3'	Total/NA	Solid	8021B	11965
885-11427-33	BS24-34 3'	Total/NA	Solid	8021B	11965
885-11427-34	BS24-35 3'	Total/NA	Solid	8021B	11965
885-11427-35	BS24-36 3'	Total/NA	Solid	8021B	11965
885-11427-36	BS24-37 3'	Total/NA	Solid	8021B	11965

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC VOA (Continued)

Analysis Batch: 12299 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-37	BS24-39 3'	Total/NA	Solid	8021B	11965
885-11427-38	BS24-41- 3'	Total/NA	Solid	8021B	11965
885-11427-39	BS24-42 3'	Total/NA	Solid	8021B	11965
885-11427-40	BS24-43 3'	Total/NA	Solid	8021B	11965
885-11427-41	BS24-44 3'	Total/NA	Solid	8021B	11965
885-11427-42	BS24-46 3'	Total/NA	Solid	8021B	11965
885-11427-43	BS24-47 3'	Total/NA	Solid	8021B	11965
MB 885-11965/1-A	Method Blank	Total/NA	Solid	8021B	11965
LCS 885-11965/3-A	Lab Control Sample	Total/NA	Solid	8021B	11965
885-11427-25 MS	BS24-25 3'	Total/NA	Solid	8021B	11965
885-11427-25 MSD	BS24-25 3'	Total/NA	Solid	8021B	11965

GC Semi VOA

Prep Batch: 12008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-1	BS24-01 3'	Total/NA	Solid	SHAKE	
885-11427-2	BS24-02 3'	Total/NA	Solid	SHAKE	
885-11427-3	BS24-03 3'	Total/NA	Solid	SHAKE	
885-11427-4	BS24-04 3'	Total/NA	Solid	SHAKE	
885-11427-5	BS24-05 3'	Total/NA	Solid	SHAKE	
885-11427-6	BS24-06 3'	Total/NA	Solid	SHAKE	
885-11427-7	BS24-07 3'	Total/NA	Solid	SHAKE	
MB 885-12008/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12008/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-11427-7 MS	BS24-07 3'	Total/NA	Solid	SHAKE	
885-11427-7 MSD	BS24-07 3'	Total/NA	Solid	SHAKE	

Analysis Batch: 12013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-6	BS24-06 3'	Total/NA	Solid	8015M/D	12008
885-11427-7	BS24-07 3'	Total/NA	Solid	8015M/D	12008
MB 885-12008/1-A	Method Blank	Total/NA	Solid	8015M/D	12008
LCS 885-12008/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12008
885-11427-7 MS	BS24-07 3'	Total/NA	Solid	8015M/D	12008
885-11427-7 MSD	BS24-07 3'	Total/NA	Solid	8015M/D	12008

Prep Batch: 12051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-9	BS24-09 3'	Total/NA	Solid	SHAKE	
885-11427-10	BS24-10 3'	Total/NA	Solid	SHAKE	
885-11427-11	BS24-11 3'	Total/NA	Solid	SHAKE	
885-11427-12	BS24-12 3'	Total/NA	Solid	SHAKE	
885-11427-13	BS24-13 3'	Total/NA	Solid	SHAKE	
885-11427-14	BS24-14 3'	Total/NA	Solid	SHAKE	
885-11427-15	BS24-15 3'	Total/NA	Solid	SHAKE	
885-11427-16	BS24-16 3'	Total/NA	Solid	SHAKE	
885-11427-17	BS24-17 3'	Total/NA	Solid	SHAKE	
885-11427-18	BS24-18 3'	Total/NA	Solid	SHAKE	
885-11427-19	BS24-19 3'	Total/NA	Solid	SHAKE	
885-11427-20	BS24-20 3'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC Semi VOA (Continued)

Prep Batch: 12051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-21	BS24-21 3'	Total/NA	Solid	SHAKE	
885-11427-23	BS24-23 3'	Total/NA	Solid	SHAKE	
885-11427-24	BS24-24 3'	Total/NA	Solid	SHAKE	
885-11427-25	BS24-25 3'	Total/NA	Solid	SHAKE	
885-11427-26	BS24-26 3'	Total/NA	Solid	SHAKE	
885-11427-27	BS24-27 3'	Total/NA	Solid	SHAKE	
885-11427-28	BS24-29 3'	Total/NA	Solid	SHAKE	
885-11427-29	BS24-30 3'	Total/NA	Solid	SHAKE	
MB 885-12051/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12051/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-11427-29 MS	BS24-30 3'	Total/NA	Solid	SHAKE	
885-11427-29 MSD	BS24-30 3'	Total/NA	Solid	SHAKE	

Prep Batch: 12078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-8	BS24-08 3'	Total/NA	Solid	SHAKE	
MB 885-12078/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12078/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-11427-8 MS	BS24-08 3'	Total/NA	Solid	SHAKE	
885-11427-8 MSD	BS24-08 3'	Total/NA	Solid	SHAKE	

Prep Batch: 12101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-30	BS24-31 3'	Total/NA	Solid	SHAKE	
885-11427-31	BS24-32 3'	Total/NA	Solid	SHAKE	
885-11427-32	BS24-33 3'	Total/NA	Solid	SHAKE	
885-11427-33	BS24-34 3'	Total/NA	Solid	SHAKE	
885-11427-34	BS24-35 3'	Total/NA	Solid	SHAKE	
885-11427-35	BS24-36 3'	Total/NA	Solid	SHAKE	
885-11427-36	BS24-37 3'	Total/NA	Solid	SHAKE	
885-11427-37	BS24-39 3'	Total/NA	Solid	SHAKE	
885-11427-38	BS24-41- 3'	Total/NA	Solid	SHAKE	
885-11427-39	BS24-42 3'	Total/NA	Solid	SHAKE	
885-11427-40	BS24-43 3'	Total/NA	Solid	SHAKE	
885-11427-41	BS24-44 3'	Total/NA	Solid	SHAKE	
885-11427-42	BS24-46 3'	Total/NA	Solid	SHAKE	
885-11427-43	BS24-47 3'	Total/NA	Solid	SHAKE	
885-11427-44	BS24-48 3'	Total/NA	Solid	SHAKE	
885-11427-45	BS24-50 3'	Total/NA	Solid	SHAKE	
885-11427-46	BS24-51 3'	Total/NA	Solid	SHAKE	
885-11427-47	BS24-52 3'	Total/NA	Solid	SHAKE	
885-11427-48	BS24-53 3'	Total/NA	Solid	SHAKE	
885-11427-49	BS24-55 3'	Total/NA	Solid	SHAKE	
MB 885-12101/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12101/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-11427-49 MS	BS24-55 3'	Total/NA	Solid	SHAKE	
885-11427-49 MSD	BS24-55 3'	Total/NA	Solid	SHAKE	

Analysis Batch: 12120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-1	BS24-01 3'	Total/NA	Solid	8015M/D	12008

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC Semi VOA (Continued)

Analysis Batch: 12120 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-2	BS24-02 3'	Total/NA	Solid	8015M/D	12008
885-11427-3	BS24-03 3'	Total/NA	Solid	8015M/D	12008
885-11427-4	BS24-04 3'	Total/NA	Solid	8015M/D	12008
885-11427-5	BS24-05 3'	Total/NA	Solid	8015M/D	12008
885-11427-8	BS24-08 3'	Total/NA	Solid	8015M/D	12078
885-11427-9	BS24-09 3'	Total/NA	Solid	8015M/D	12051
885-11427-10	BS24-10 3'	Total/NA	Solid	8015M/D	12051
885-11427-11	BS24-11 3'	Total/NA	Solid	8015M/D	12051
885-11427-12	BS24-12 3'	Total/NA	Solid	8015M/D	12051
885-11427-13	BS24-13 3'	Total/NA	Solid	8015M/D	12051
885-11427-14	BS24-14 3'	Total/NA	Solid	8015M/D	12051
885-11427-15	BS24-15 3'	Total/NA	Solid	8015M/D	12051
885-11427-16	BS24-16 3'	Total/NA	Solid	8015M/D	12051
885-11427-17	BS24-17 3'	Total/NA	Solid	8015M/D	12051
885-11427-18	BS24-18 3'	Total/NA	Solid	8015M/D	12051
885-11427-19	BS24-19 3'	Total/NA	Solid	8015M/D	12051
885-11427-20	BS24-20 3'	Total/NA	Solid	8015M/D	12051
885-11427-21	BS24-21 3'	Total/NA	Solid	8015M/D	12051
885-11427-23	BS24-23 3'	Total/NA	Solid	8015M/D	12051
885-11427-24	BS24-24 3'	Total/NA	Solid	8015M/D	12051
885-11427-25	BS24-25 3'	Total/NA	Solid	8015M/D	12051
885-11427-26	BS24-26 3'	Total/NA	Solid	8015M/D	12051
885-11427-27	BS24-27 3'	Total/NA	Solid	8015M/D	12051
885-11427-28	BS24-29 3'	Total/NA	Solid	8015M/D	12051
885-11427-29	BS24-30 3'	Total/NA	Solid	8015M/D	12051
885-11427-30	BS24-31 3'	Total/NA	Solid	8015M/D	12101
885-11427-31	BS24-32 3'	Total/NA	Solid	8015M/D	12101
885-11427-32	BS24-33 3'	Total/NA	Solid	8015M/D	12101
885-11427-33	BS24-34 3'	Total/NA	Solid	8015M/D	12101
885-11427-34	BS24-35 3'	Total/NA	Solid	8015M/D	12101
885-11427-35	BS24-36 3'	Total/NA	Solid	8015M/D	12101
885-11427-36	BS24-37 3'	Total/NA	Solid	8015M/D	12101
885-11427-37	BS24-39 3'	Total/NA	Solid	8015M/D	12101
885-11427-38	BS24-41- 3'	Total/NA	Solid	8015M/D	12101
885-11427-39	BS24-42 3'	Total/NA	Solid	8015M/D	12101
885-11427-40	BS24-43 3'	Total/NA	Solid	8015M/D	12101
885-11427-41	BS24-44 3'	Total/NA	Solid	8015M/D	12101
885-11427-42	BS24-46 3'	Total/NA	Solid	8015M/D	12101
885-11427-43	BS24-47 3'	Total/NA	Solid	8015M/D	12101
885-11427-44	BS24-48 3'	Total/NA	Solid	8015M/D	12101
885-11427-45	BS24-50 3'	Total/NA	Solid	8015M/D	12101
885-11427-46	BS24-51 3'	Total/NA	Solid	8015M/D	12101
885-11427-47	BS24-52 3'	Total/NA	Solid	8015M/D	12101
885-11427-48	BS24-53 3'	Total/NA	Solid	8015M/D	12101
885-11427-49	BS24-55 3'	Total/NA	Solid	8015M/D	12101
885-11427-50	BS24-56 3'	Total/NA	Solid	8015M/D	12134
885-11427-51	BS24-57 3'	Total/NA	Solid	8015M/D	12134
885-11427-52	BS24-58 3'	Total/NA	Solid	8015M/D	12134
885-11427-53	BS24-59 3'	Total/NA	Solid	8015M/D	12134
885-11427-54	BS24-60 3'	Total/NA	Solid	8015M/D	12134
885-11427-55	BS24-61 3'	Total/NA	Solid	8015M/D	12134

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

GC Semi VOA (Continued)

Analysis Batch: 12120 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-56	BS24-64 3'	Total/NA	Solid	8015M/D	12134
885-11427-57	BS24-65 3'	Total/NA	Solid	8015M/D	12134
885-11427-58	BS24-66 3'	Total/NA	Solid	8015M/D	12134
885-11427-59	BS24-67 3'	Total/NA	Solid	8015M/D	12134
885-11427-60	BS24-68 3'	Total/NA	Solid	8015M/D	12134
885-11427-61	BS24-69 3'	Total/NA	Solid	8015M/D	12134
885-11427-62	BS24-70 3'	Total/NA	Solid	8015M/D	12134
885-11427-63	BS24-71 3'	Total/NA	Solid	8015M/D	12134
885-11427-64	BS24-72 3'	Total/NA	Solid	8015M/D	12134
885-11427-65	BS24-73 3'	Total/NA	Solid	8015M/D	12134
885-11427-66	BS24-74 3'	Total/NA	Solid	8015M/D	12134
885-11427-67	BS24-76 3'	Total/NA	Solid	8015M/D	12134
885-11427-68	BS24-78 3'	Total/NA	Solid	8015M/D	12134
885-11427-69	BS24-80 3'	Total/NA	Solid	8015M/D	12134
MB 885-12051/1-A	Method Blank	Total/NA	Solid	8015M/D	12051
MB 885-12078/1-A	Method Blank	Total/NA	Solid	8015M/D	12078
MB 885-12101/1-A	Method Blank	Total/NA	Solid	8015M/D	12101
MB 885-12134/1-A	Method Blank	Total/NA	Solid	8015M/D	12134
LCS 885-12051/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12051
LCS 885-12078/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12078
LCS 885-12101/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12101
LCS 885-12134/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12134
885-11427-8 MS	BS24-08 3'	Total/NA	Solid	8015M/D	12078
885-11427-8 MSD	BS24-08 3'	Total/NA	Solid	8015M/D	12078
885-11427-29 MS	BS24-30 3'	Total/NA	Solid	8015M/D	12051
885-11427-29 MSD	BS24-30 3'	Total/NA	Solid	8015M/D	12051
885-11427-49 MS	BS24-55 3'	Total/NA	Solid	8015M/D	12101
885-11427-49 MSD	BS24-55 3'	Total/NA	Solid	8015M/D	12101
885-11427-69 MS	BS24-80 3'	Total/NA	Solid	8015M/D	12134
885-11427-69 MSD	BS24-80 3'	Total/NA	Solid	8015M/D	12134

Prep Batch: 12134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-50	BS24-56 3'	Total/NA	Solid	SHAKE	
885-11427-51	BS24-57 3'	Total/NA	Solid	SHAKE	
885-11427-52	BS24-58 3'	Total/NA	Solid	SHAKE	
885-11427-53	BS24-59 3'	Total/NA	Solid	SHAKE	
885-11427-54	BS24-60 3'	Total/NA	Solid	SHAKE	
885-11427-55	BS24-61 3'	Total/NA	Solid	SHAKE	
885-11427-56	BS24-64 3'	Total/NA	Solid	SHAKE	
885-11427-57	BS24-65 3'	Total/NA	Solid	SHAKE	
885-11427-58	BS24-66 3'	Total/NA	Solid	SHAKE	
885-11427-59	BS24-67 3'	Total/NA	Solid	SHAKE	
885-11427-60	BS24-68 3'	Total/NA	Solid	SHAKE	
885-11427-61	BS24-69 3'	Total/NA	Solid	SHAKE	
885-11427-62	BS24-70 3'	Total/NA	Solid	SHAKE	
885-11427-63	BS24-71 3'	Total/NA	Solid	SHAKE	
885-11427-64	BS24-72 3'	Total/NA	Solid	SHAKE	
885-11427-65	BS24-73 3'	Total/NA	Solid	SHAKE	
885-11427-66	BS24-74 3'	Total/NA	Solid	SHAKE	
885-11427-67	BS24-76 3'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

GC Semi VOA (Continued)

Prep Batch: 12134 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-68	BS24-78 3'	Total/NA	Solid	SHAKE	
885-11427-69	BS24-80 3'	Total/NA	Solid	SHAKE	
MB 885-12134/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12134/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-11427-69 MS	BS24-80 3'	Total/NA	Solid	SHAKE	
885-11427-69 MSD	BS24-80 3'	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 12047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-1	BS24-01 3'	Total/NA	Solid	300_Prep	
885-11427-2	BS24-02 3'	Total/NA	Solid	300_Prep	
885-11427-3	BS24-03 3'	Total/NA	Solid	300_Prep	
885-11427-4	BS24-04 3'	Total/NA	Solid	300_Prep	
885-11427-5	BS24-05 3'	Total/NA	Solid	300_Prep	
885-11427-6	BS24-06 3'	Total/NA	Solid	300_Prep	
MB 885-12047/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12047/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 12093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-1	BS24-01 3'	Total/NA	Solid	300.0	12047
885-11427-2	BS24-02 3'	Total/NA	Solid	300.0	12047
885-11427-3	BS24-03 3'	Total/NA	Solid	300.0	12047
885-11427-4	BS24-04 3'	Total/NA	Solid	300.0	12047
885-11427-5	BS24-05 3'	Total/NA	Solid	300.0	12047
885-11427-6	BS24-06 3'	Total/NA	Solid	300.0	12047
MB 885-12047/1-A	Method Blank	Total/NA	Solid	300.0	12047
LCS 885-12047/2-A	Lab Control Sample	Total/NA	Solid	300.0	12047

Prep Batch: 12094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-7	BS24-07 3'	Total/NA	Solid	300_Prep	
885-11427-8	BS24-08 3'	Total/NA	Solid	300_Prep	
885-11427-9	BS24-09 3'	Total/NA	Solid	300_Prep	
885-11427-10	BS24-10 3'	Total/NA	Solid	300_Prep	
885-11427-11	BS24-11 3'	Total/NA	Solid	300_Prep	
885-11427-12	BS24-12 3'	Total/NA	Solid	300_Prep	
885-11427-13	BS24-13 3'	Total/NA	Solid	300_Prep	
885-11427-14	BS24-14 3'	Total/NA	Solid	300_Prep	
885-11427-15	BS24-15 3'	Total/NA	Solid	300_Prep	
885-11427-16	BS24-16 3'	Total/NA	Solid	300_Prep	
885-11427-17	BS24-17 3'	Total/NA	Solid	300_Prep	
885-11427-18	BS24-18 3'	Total/NA	Solid	300_Prep	
885-11427-19	BS24-19 3'	Total/NA	Solid	300_Prep	
885-11427-20	BS24-20 3'	Total/NA	Solid	300_Prep	
885-11427-21	BS24-21 3'	Total/NA	Solid	300_Prep	
885-11427-23	BS24-23 3'	Total/NA	Solid	300_Prep	
885-11427-24	BS24-24 3'	Total/NA	Solid	300_Prep	
885-11427-25	BS24-25 3'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

HPLC/IC (Continued)

Prep Batch: 12094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-26	BS24-26 3'	Total/NA	Solid	300_Prep	
885-11427-27	BS24-27 3'	Total/NA	Solid	300_Prep	
MB 885-12094/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12094/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-11427-7 MS	BS24-07 3'	Total/NA	Solid	300_Prep	
885-11427-7 MSD	BS24-07 3'	Total/NA	Solid	300_Prep	
885-11427-8 MS	BS24-08 3'	Total/NA	Solid	300_Prep	
885-11427-8 MSD	BS24-08 3'	Total/NA	Solid	300_Prep	

Prep Batch: 12096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-28	BS24-29 3'	Total/NA	Solid	300_Prep	
885-11427-29	BS24-30 3'	Total/NA	Solid	300_Prep	
MB 885-12096/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12096/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 12139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-28	BS24-29 3'	Total/NA	Solid	300.0	12096
885-11427-29	BS24-30 3'	Total/NA	Solid	300.0	12096
885-11427-30	BS24-31 3'	Total/NA	Solid	300.0	12143
885-11427-31	BS24-32 3'	Total/NA	Solid	300.0	12143
885-11427-32	BS24-33 3'	Total/NA	Solid	300.0	12143
885-11427-33	BS24-34 3'	Total/NA	Solid	300.0	12143
885-11427-34	BS24-35 3'	Total/NA	Solid	300.0	12143
885-11427-35	BS24-36 3'	Total/NA	Solid	300.0	12143
885-11427-36	BS24-37 3'	Total/NA	Solid	300.0	12143
885-11427-37	BS24-39 3'	Total/NA	Solid	300.0	12143
885-11427-38	BS24-41- 3'	Total/NA	Solid	300.0	12143
885-11427-39	BS24-42 3'	Total/NA	Solid	300.0	12143
885-11427-40	BS24-43 3'	Total/NA	Solid	300.0	12143
885-11427-41	BS24-44 3'	Total/NA	Solid	300.0	12143
885-11427-42	BS24-46 3'	Total/NA	Solid	300.0	12143
885-11427-43	BS24-47 3'	Total/NA	Solid	300.0	12143
885-11427-44	BS24-48 3'	Total/NA	Solid	300.0	12143
885-11427-45	BS24-50 3'	Total/NA	Solid	300.0	12143
885-11427-46	BS24-51 3'	Total/NA	Solid	300.0	12143
885-11427-47	BS24-52 3'	Total/NA	Solid	300.0	12143
885-11427-48	BS24-53 3'	Total/NA	Solid	300.0	12143
885-11427-49	BS24-55 3'	Total/NA	Solid	300.0	12143
MB 885-12096/1-A	Method Blank	Total/NA	Solid	300.0	12096
MB 885-12143/1-A	Method Blank	Total/NA	Solid	300.0	12143
LCS 885-12096/2-A	Lab Control Sample	Total/NA	Solid	300.0	12096
LCS 885-12143/2-A	Lab Control Sample	Total/NA	Solid	300.0	12143
885-11427-30 MS	BS24-31 3'	Total/NA	Solid	300.0	12143
885-11427-30 MSD	BS24-31 3'	Total/NA	Solid	300.0	12143
885-11427-40 MS	BS24-43 3'	Total/NA	Solid	300.0	12143
885-11427-40 MSD	BS24-43 3'	Total/NA	Solid	300.0	12143

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

HPLC/IC

Prep Batch: 12143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-30	BS24-31 3'	Total/NA	Solid	300_Prep	
885-11427-31	BS24-32 3'	Total/NA	Solid	300_Prep	
885-11427-32	BS24-33 3'	Total/NA	Solid	300_Prep	
885-11427-33	BS24-34 3'	Total/NA	Solid	300_Prep	
885-11427-34	BS24-35 3'	Total/NA	Solid	300_Prep	
885-11427-35	BS24-36 3'	Total/NA	Solid	300_Prep	
885-11427-36	BS24-37 3'	Total/NA	Solid	300_Prep	
885-11427-37	BS24-39 3'	Total/NA	Solid	300_Prep	
885-11427-38	BS24-41- 3'	Total/NA	Solid	300_Prep	
885-11427-39	BS24-42 3'	Total/NA	Solid	300_Prep	
885-11427-40	BS24-43 3'	Total/NA	Solid	300_Prep	
885-11427-41	BS24-44 3'	Total/NA	Solid	300_Prep	
885-11427-42	BS24-46 3'	Total/NA	Solid	300_Prep	
885-11427-43	BS24-47 3'	Total/NA	Solid	300_Prep	
885-11427-44	BS24-48 3'	Total/NA	Solid	300_Prep	
885-11427-45	BS24-50 3'	Total/NA	Solid	300_Prep	
885-11427-46	BS24-51 3'	Total/NA	Solid	300_Prep	
885-11427-47	BS24-52 3'	Total/NA	Solid	300_Prep	
885-11427-48	BS24-53 3'	Total/NA	Solid	300_Prep	
885-11427-49	BS24-55 3'	Total/NA	Solid	300_Prep	
MB 885-12143/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12143/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-11427-30 MS	BS24-31 3'	Total/NA	Solid	300_Prep	
885-11427-30 MSD	BS24-31 3'	Total/NA	Solid	300_Prep	
885-11427-40 MS	BS24-43 3'	Total/NA	Solid	300_Prep	
885-11427-40 MSD	BS24-43 3'	Total/NA	Solid	300_Prep	

Analysis Batch: 12166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-7	BS24-07 3'	Total/NA	Solid	300.0	12094
885-11427-8	BS24-08 3'	Total/NA	Solid	300.0	12094
885-11427-9	BS24-09 3'	Total/NA	Solid	300.0	12094
885-11427-10	BS24-10 3'	Total/NA	Solid	300.0	12094
885-11427-11	BS24-11 3'	Total/NA	Solid	300.0	12094
885-11427-12	BS24-12 3'	Total/NA	Solid	300.0	12094
885-11427-13	BS24-13 3'	Total/NA	Solid	300.0	12094
885-11427-14	BS24-14 3'	Total/NA	Solid	300.0	12094
885-11427-15	BS24-15 3'	Total/NA	Solid	300.0	12094
885-11427-16	BS24-16 3'	Total/NA	Solid	300.0	12094
885-11427-17	BS24-17 3'	Total/NA	Solid	300.0	12094
885-11427-18	BS24-18 3'	Total/NA	Solid	300.0	12094
885-11427-19	BS24-19 3'	Total/NA	Solid	300.0	12094
885-11427-20	BS24-20 3'	Total/NA	Solid	300.0	12094
885-11427-21	BS24-21 3'	Total/NA	Solid	300.0	12094
885-11427-23	BS24-23 3'	Total/NA	Solid	300.0	12094
885-11427-24	BS24-24 3'	Total/NA	Solid	300.0	12094
885-11427-25	BS24-25 3'	Total/NA	Solid	300.0	12094
885-11427-26	BS24-26 3'	Total/NA	Solid	300.0	12094
885-11427-27	BS24-27 3'	Total/NA	Solid	300.0	12094
MB 885-12094/1-A	Method Blank	Total/NA	Solid	300.0	12094
LCS 885-12094/2-A	Lab Control Sample	Total/NA	Solid	300.0	12094

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

HPLC/IC (Continued)

Analysis Batch: 12166 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-7 MS	BS24-07 3'	Total/NA	Solid	300.0	12094
885-11427-7 MSD	BS24-07 3'	Total/NA	Solid	300.0	12094
885-11427-8 MS	BS24-08 3'	Total/NA	Solid	300.0	12094
885-11427-8 MSD	BS24-08 3'	Total/NA	Solid	300.0	12094

Prep Batch: 12203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-50	BS24-56 3'	Total/NA	Solid	300_Prep	
885-11427-51	BS24-57 3'	Total/NA	Solid	300_Prep	
885-11427-52	BS24-58 3'	Total/NA	Solid	300_Prep	
885-11427-53	BS24-59 3'	Total/NA	Solid	300_Prep	
885-11427-54	BS24-60 3'	Total/NA	Solid	300_Prep	
885-11427-55	BS24-61 3'	Total/NA	Solid	300_Prep	
885-11427-56	BS24-64 3'	Total/NA	Solid	300_Prep	
885-11427-57	BS24-65 3'	Total/NA	Solid	300_Prep	
885-11427-58	BS24-66 3'	Total/NA	Solid	300_Prep	
885-11427-59	BS24-67 3'	Total/NA	Solid	300_Prep	
885-11427-60	BS24-68 3'	Total/NA	Solid	300_Prep	
885-11427-61	BS24-69 3'	Total/NA	Solid	300_Prep	
885-11427-62	BS24-70 3'	Total/NA	Solid	300_Prep	
885-11427-63	BS24-71 3'	Total/NA	Solid	300_Prep	
885-11427-64	BS24-72 3'	Total/NA	Solid	300_Prep	
885-11427-65	BS24-73 3'	Total/NA	Solid	300_Prep	
885-11427-66	BS24-74 3'	Total/NA	Solid	300_Prep	
885-11427-67	BS24-76 3'	Total/NA	Solid	300_Prep	
MB 885-12203/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12203/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-11427-50 MS	BS24-56 3'	Total/NA	Solid	300_Prep	
885-11427-50 MSD	BS24-56 3'	Total/NA	Solid	300_Prep	
885-11427-60 MS	BS24-68 3'	Total/NA	Solid	300_Prep	
885-11427-60 MSD	BS24-68 3'	Total/NA	Solid	300_Prep	

Prep Batch: 12213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-68	BS24-78 3'	Total/NA	Solid	300_Prep	
885-11427-69	BS24-80 3'	Total/NA	Solid	300_Prep	
MB 885-12213/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12213/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 12227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-50	BS24-56 3'	Total/NA	Solid	300.0	12203
885-11427-51	BS24-57 3'	Total/NA	Solid	300.0	12203
885-11427-52	BS24-58 3'	Total/NA	Solid	300.0	12203
885-11427-53	BS24-59 3'	Total/NA	Solid	300.0	12203
885-11427-54	BS24-60 3'	Total/NA	Solid	300.0	12203
885-11427-55	BS24-61 3'	Total/NA	Solid	300.0	12203
885-11427-56	BS24-64 3'	Total/NA	Solid	300.0	12203
885-11427-57	BS24-65 3'	Total/NA	Solid	300.0	12203
885-11427-58	BS24-66 3'	Total/NA	Solid	300.0	12203
885-11427-59	BS24-67 3'	Total/NA	Solid	300.0	12203

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11427-1

HPLC/IC (Continued)

Analysis Batch: 12227 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-60	BS24-68 3'	Total/NA	Solid	300.0	12203
885-11427-61	BS24-69 3'	Total/NA	Solid	300.0	12203
885-11427-62	BS24-70 3'	Total/NA	Solid	300.0	12203
885-11427-63	BS24-71 3'	Total/NA	Solid	300.0	12203
885-11427-64	BS24-72 3'	Total/NA	Solid	300.0	12203
885-11427-65	BS24-73 3'	Total/NA	Solid	300.0	12203
885-11427-66	BS24-74 3'	Total/NA	Solid	300.0	12203
885-11427-67	BS24-76 3'	Total/NA	Solid	300.0	12203
MB 885-12203/1-A	Method Blank	Total/NA	Solid	300.0	12203
MB 885-12213/1-A	Method Blank	Total/NA	Solid	300.0	12213
LCS 885-12203/2-A	Lab Control Sample	Total/NA	Solid	300.0	12203
885-11427-50 MS	BS24-56 3'	Total/NA	Solid	300.0	12203
885-11427-50 MSD	BS24-56 3'	Total/NA	Solid	300.0	12203
885-11427-60 MS	BS24-68 3'	Total/NA	Solid	300.0	12203
885-11427-60 MSD	BS24-68 3'	Total/NA	Solid	300.0	12203

Analysis Batch: 12355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11427-68	BS24-78 3'	Total/NA	Solid	300.0	12213
885-11427-69	BS24-80 3'	Total/NA	Solid	300.0	12213
MB 885-12213/1-A	Method Blank	Total/NA	Solid	300.0	12213
LCS 885-12213/2-A	Lab Control Sample	Total/NA	Solid	300.0	12213

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-01 3'
Lab Sample ID: 885-11427-1
Date Collected: 09/07/24 08:30
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11936	JP	EET ALB	09/10/24 11:11
Total/NA	Analysis	8015M/D		1	12112	AT	EET ALB	09/11/24 20:12
Total/NA	Prep	5030C			11936	JP	EET ALB	09/10/24 11:11
Total/NA	Analysis	8021B		1	12114	AT	EET ALB	09/11/24 20:12
Total/NA	Prep	SHAKE			12008	KR	EET ALB	09/11/24 11:22
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 01:04
Total/NA	Prep	300_Prep			12047	EH	EET ALB	09/11/24 13:14
Total/NA	Analysis	300.0		20	12093	EH	EET ALB	09/12/24 00:32

Client Sample ID: BS24-02 3'
Lab Sample ID: 885-11427-2
Date Collected: 09/07/24 08:35
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11936	JP	EET ALB	09/10/24 11:11
Total/NA	Analysis	8015M/D		1	12112	AT	EET ALB	09/11/24 20:34
Total/NA	Prep	5030C			11936	JP	EET ALB	09/10/24 11:11
Total/NA	Analysis	8021B		1	12114	AT	EET ALB	09/11/24 20:34
Total/NA	Prep	SHAKE			12008	KR	EET ALB	09/11/24 11:22
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 01:16
Total/NA	Prep	300_Prep			12047	EH	EET ALB	09/11/24 13:14
Total/NA	Analysis	300.0		20	12093	EH	EET ALB	09/12/24 00:45

Client Sample ID: BS24-03 3'
Lab Sample ID: 885-11427-3
Date Collected: 09/07/24 08:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/12/24 21:41
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/12/24 21:41
Total/NA	Prep	SHAKE			12008	KR	EET ALB	09/11/24 11:22
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 00:28
Total/NA	Prep	300_Prep			12047	EH	EET ALB	09/11/24 13:14
Total/NA	Analysis	300.0		20	12093	EH	EET ALB	09/12/24 00:58

Client Sample ID: BS24-04 3'
Lab Sample ID: 885-11427-4
Date Collected: 09/07/24 08:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/12/24 22:51

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-04 3'
Lab Sample ID: 885-11427-4
Date Collected: 09/07/24 08:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/12/24 22:51
Total/NA	Prep	SHAKE			12008	KR	EET ALB	09/11/24 11:22
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 00:40
Total/NA	Prep	300_Prep			12047	EH	EET ALB	09/11/24 13:14
Total/NA	Analysis	300.0		20	12093	EH	EET ALB	09/12/24 01:11

Client Sample ID: BS24-05 3'
Lab Sample ID: 885-11427-5
Date Collected: 09/07/24 08:50
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 00:01
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 00:01
Total/NA	Prep	SHAKE			12008	KR	EET ALB	09/11/24 11:22
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 00:53
Total/NA	Prep	300_Prep			12047	EH	EET ALB	09/11/24 13:14
Total/NA	Analysis	300.0		20	12093	EH	EET ALB	09/12/24 01:49

Client Sample ID: BS24-06 3'
Lab Sample ID: 885-11427-6
Date Collected: 09/07/24 08:55
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 00:25
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 00:25
Total/NA	Prep	SHAKE			12008	KR	EET ALB	09/11/24 11:22
Total/NA	Analysis	8015M/D		1	12013	KR	EET ALB	09/12/24 07:58
Total/NA	Prep	300_Prep			12047	EH	EET ALB	09/11/24 13:14
Total/NA	Analysis	300.0		20	12093	EH	EET ALB	09/12/24 02:02

Client Sample ID: BS24-07 3'
Lab Sample ID: 885-11427-7
Date Collected: 09/07/24 09:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 00:48
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 00:48

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-07 3'
Lab Sample ID: 885-11427-7
Date Collected: 09/07/24 09:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12008	KR	EET ALB	09/11/24 11:22
Total/NA	Analysis	8015M/D		1	12013	KR	EET ALB	09/12/24 08:23
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 09:27

Client Sample ID: BS24-08 3'
Lab Sample ID: 885-11427-8
Date Collected: 09/07/24 09:05
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 01:12
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 01:12
Total/NA	Prep	SHAKE			12078	EM	EET ALB	09/11/24 15:53
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 07:53
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 10:06

Client Sample ID: BS24-09 3'
Lab Sample ID: 885-11427-9
Date Collected: 09/07/24 09:10
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 01:36
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 01:36
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 12:18
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 11:10

Client Sample ID: BS24-10 3'
Lab Sample ID: 885-11427-10
Date Collected: 09/07/24 09:15
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 01:59
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 01:59
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 12:30

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-10 3'
Lab Sample ID: 885-11427-10
Date Collected: 09/07/24 09:15
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 11:23

Client Sample ID: BS24-11 3'
Lab Sample ID: 885-11427-11
Date Collected: 09/07/24 09:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 02:23
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 02:23
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 12:43
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 11:36

Client Sample ID: BS24-12 3'
Lab Sample ID: 885-11427-12
Date Collected: 09/07/24 09:25
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 02:46
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 02:46
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 12:55
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 11:49

Client Sample ID: BS24-13 3'
Lab Sample ID: 885-11427-13
Date Collected: 09/07/24 09:30
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 03:33
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 03:33
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 13:08
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 12:02

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-14 3'
Lab Sample ID: 885-11427-14
Date Collected: 09/07/24 09:35
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 03:57
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 03:57
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 13:21
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 12:15

Client Sample ID: BS24-15 3'
Lab Sample ID: 885-11427-15
Date Collected: 09/07/24 09:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 04:20
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 04:20
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 13:33
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 12:27

Client Sample ID: BS24-16 3'
Lab Sample ID: 885-11427-16
Date Collected: 09/07/24 09:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 04:44
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 04:44
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 13:46
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 12:40

Client Sample ID: BS24-17 3'
Lab Sample ID: 885-11427-17
Date Collected: 09/07/24 09:50
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 05:08

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-17 3'
Lab Sample ID: 885-11427-17
Date Collected: 09/07/24 09:50
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 05:08
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 13:58
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 12:53

Client Sample ID: BS24-18 3'
Lab Sample ID: 885-11427-18
Date Collected: 09/07/24 09:55
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 05:31
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 05:31
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 14:11
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 13:06

Client Sample ID: BS24-19 3'
Lab Sample ID: 885-11427-19
Date Collected: 09/07/24 10:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 05:55
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 05:55
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 14:36
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 13:45

Client Sample ID: BS24-20 3'
Lab Sample ID: 885-11427-20
Date Collected: 09/07/24 10:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 06:19
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 06:19

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-20 3'
Lab Sample ID: 885-11427-20
Date Collected: 09/07/24 10:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 14:49
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 13:58

Client Sample ID: BS24-21 3'
Lab Sample ID: 885-11427-21
Date Collected: 09/07/24 10:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 06:42
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 06:42
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 15:01
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 14:11

Client Sample ID: BS24-23 3'
Lab Sample ID: 885-11427-23
Date Collected: 09/07/24 10:05
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8015M/D		1	12204	RA	EET ALB	09/13/24 07:06
Total/NA	Prep	5030C			11951	JP	EET ALB	09/10/24 12:17
Total/NA	Analysis	8021B		1	12205	RA	EET ALB	09/13/24 07:06
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 15:14
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 14:24

Client Sample ID: BS24-24 3'
Lab Sample ID: 885-11427-24
Date Collected: 09/07/24 10:05
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 01:12
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 01:12
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 15:27

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-24 3'
Lab Sample ID: 885-11427-24
Date Collected: 09/07/24 10:05
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 14:36

Client Sample ID: BS24-25 3'
Lab Sample ID: 885-11427-25
Date Collected: 09/07/24 10:10
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 02:22
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 02:22
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 15:39
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 14:49

Client Sample ID: BS24-26 3'
Lab Sample ID: 885-11427-26
Date Collected: 09/07/24 10:10
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 03:32
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 03:32
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 15:52
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 15:02

Client Sample ID: BS24-27 3'
Lab Sample ID: 885-11427-27
Date Collected: 09/07/24 10:10
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 03:56
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 03:56
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 16:04
Total/NA	Prep	300_Prep			12094	RC	EET ALB	09/12/24 08:07
Total/NA	Analysis	300.0		20	12166	EH	EET ALB	09/12/24 15:15

Lab Chronicle

Client: Vertex Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-29 3' Lab Sample ID: 885-11427-28

Date Collected: 09/07/24 10:15 **Matrix: Solid**
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 04:19
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 04:19
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 16:17
Total/NA	Prep	300_Prep			12096	RC	EET ALB	09/12/24 08:39
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 14:37

Client Sample ID: BS24-30 3' Lab Sample ID: 885-11427-29

Date Collected: 09/07/24 10:15 **Matrix: Solid**
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 04:42
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 04:42
Total/NA	Prep	SHAKE			12051	KR	EET ALB	09/11/24 13:59
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 16:30
Total/NA	Prep	300_Prep			12096	RC	EET ALB	09/12/24 08:39
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 16:08

Client Sample ID: BS24-31 3' Lab Sample ID: 885-11427-30

Date Collected: 09/07/24 10:15 **Matrix: Solid**
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 05:06
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 05:06
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 17:47
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 21:30

Client Sample ID: BS24-32 3' Lab Sample ID: 885-11427-31

Date Collected: 09/07/24 10:20 **Matrix: Solid**
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 05:29

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-32 3'
Lab Sample ID: 885-11427-31
Date Collected: 09/07/24 10:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 05:29
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 18:00
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 22:08

Client Sample ID: BS24-33 3'
Lab Sample ID: 885-11427-32
Date Collected: 09/07/24 10:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 05:53
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 05:53
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 18:13
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 22:21

Client Sample ID: BS24-34 3'
Lab Sample ID: 885-11427-33
Date Collected: 09/07/24 10:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 06:16
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 06:16
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 18:25
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 22:34

Client Sample ID: BS24-35 3'
Lab Sample ID: 885-11427-34
Date Collected: 09/07/24 10:25
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 07:03
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 07:03

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-35 3'
Lab Sample ID: 885-11427-34
Date Collected: 09/07/24 10:25
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 18:38
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 22:47

Client Sample ID: BS24-36 3'
Lab Sample ID: 885-11427-35
Date Collected: 09/07/24 10:25
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 07:27
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 07:27
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 18:50
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 23:00

Client Sample ID: BS24-37 3'
Lab Sample ID: 885-11427-36
Date Collected: 09/07/24 10:25
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 07:50
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 07:50
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 19:02
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 23:38

Client Sample ID: BS24-39 3'
Lab Sample ID: 885-11427-37
Date Collected: 09/07/24 10:30
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 08:14
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 08:14
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 19:14

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-39 3'
Lab Sample ID: 885-11427-37
Date Collected: 09/07/24 10:30
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/12/24 23:51

Client Sample ID: BS24-41- 3'
Lab Sample ID: 885-11427-38
Date Collected: 09/07/24 10:30
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 08:38
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 08:38
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 19:27
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 00:04

Client Sample ID: BS24-42 3'
Lab Sample ID: 885-11427-39
Date Collected: 09/07/24 10:30
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 09:01
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 09:01
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 19:39
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 00:17

Client Sample ID: BS24-43 3'
Lab Sample ID: 885-11427-40
Date Collected: 09/07/24 10:35
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 09:25
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 09:25
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 20:03
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 00:30

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-44 3'
Lab Sample ID: 885-11427-41
Date Collected: 09/07/24 10:35
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 09:48
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 09:48
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 20:15
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 01:08

Client Sample ID: BS24-46 3'
Lab Sample ID: 885-11427-42
Date Collected: 09/07/24 10:35
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 10:11
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 10:11
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 20:27
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 01:21

Client Sample ID: BS24-47 3'
Lab Sample ID: 885-11427-43
Date Collected: 09/07/24 10:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8015M/D		1	12298	JP	EET ALB	09/14/24 10:35
Total/NA	Prep	5030C			11965	AT	EET ALB	09/10/24 15:41
Total/NA	Analysis	8021B		1	12299	JP	EET ALB	09/14/24 10:35
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 20:39
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 01:34

Client Sample ID: BS24-48 3'
Lab Sample ID: 885-11427-44
Date Collected: 09/07/24 10:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 00:03

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-48 3'
Lab Sample ID: 885-11427-44
Date Collected: 09/07/24 10:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 00:03
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 20:51
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 02:13

Client Sample ID: BS24-50 3'
Lab Sample ID: 885-11427-45
Date Collected: 09/07/24 10:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 01:08
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 01:08
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 21:03
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 02:25

Client Sample ID: BS24-51 3'
Lab Sample ID: 885-11427-46
Date Collected: 09/07/24 10:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 02:13
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 02:13
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 21:15
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 02:38

Client Sample ID: BS24-52 3'
Lab Sample ID: 885-11427-47
Date Collected: 09/07/24 10:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 02:35
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 02:35

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-52 3'
Lab Sample ID: 885-11427-47
Date Collected: 09/07/24 10:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 21:27
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 02:51

Client Sample ID: BS24-53 3'
Lab Sample ID: 885-11427-48
Date Collected: 09/07/24 10:50
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 02:57
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 02:57
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 21:39
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 03:04

Client Sample ID: BS24-55 3'
Lab Sample ID: 885-11427-49
Date Collected: 09/07/24 11:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 03:18
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 03:18
Total/NA	Prep	SHAKE			12101	KR	EET ALB	09/12/24 09:09
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/12/24 21:52
Total/NA	Prep	300_Prep			12143	EH	EET ALB	09/12/24 14:50
Total/NA	Analysis	300.0		20	12139	EH	EET ALB	09/13/24 03:17

Client Sample ID: BS24-56 3'
Lab Sample ID: 885-11427-50
Date Collected: 09/07/24 11:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 03:40
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 03:40
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 02:04

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-56 3'
Lab Sample ID: 885-11427-50
Date Collected: 09/07/24 11:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 10:36

Client Sample ID: BS24-57 3'
Lab Sample ID: 885-11427-51
Date Collected: 09/07/24 11:00
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 04:02
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 04:02
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 02:16
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 11:14

Client Sample ID: BS24-58 3'
Lab Sample ID: 885-11427-52
Date Collected: 09/07/24 11:10
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 04:24
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 04:24
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 02:28
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 11:27

Client Sample ID: BS24-59 3'
Lab Sample ID: 885-11427-53
Date Collected: 09/07/24 11:10
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 04:46
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 04:46
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 02:40
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 11:40

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-60 3'
Lab Sample ID: 885-11427-54
Date Collected: 09/07/24 11:10
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 05:29
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 05:29
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 02:52
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 12:19

Client Sample ID: BS24-61 3'
Lab Sample ID: 885-11427-55
Date Collected: 09/07/24 11:15
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 05:51
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 05:51
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 03:04
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 12:32

Client Sample ID: BS24-64 3'
Lab Sample ID: 885-11427-56
Date Collected: 09/07/24 11:15
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 06:12
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 06:12
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 03:16
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 12:45

Client Sample ID: BS24-65 3'
Lab Sample ID: 885-11427-57
Date Collected: 09/07/24 11:15
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 06:34

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-65 3'
Lab Sample ID: 885-11427-57
Date Collected: 09/07/24 11:15
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 06:34
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 03:29
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 12:57

Client Sample ID: BS24-66 3'
Lab Sample ID: 885-11427-58
Date Collected: 09/07/24 11:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 06:56
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 06:56
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 03:41
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 13:10

Client Sample ID: BS24-67 3'
Lab Sample ID: 885-11427-59
Date Collected: 09/07/24 11:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 07:18
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 07:18
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 03:53
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 13:23

Client Sample ID: BS24-68 3'
Lab Sample ID: 885-11427-60
Date Collected: 09/07/24 11:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 07:40
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 07:40

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-68 3'
Lab Sample ID: 885-11427-60
Date Collected: 09/07/24 11:20
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 04:17
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 13:36

Client Sample ID: BS24-69 3'
Lab Sample ID: 885-11427-61
Date Collected: 09/07/24 11:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 08:02
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 08:02
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 04:29
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 14:15

Client Sample ID: BS24-70 3'
Lab Sample ID: 885-11427-62
Date Collected: 09/07/24 11:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 08:24
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 08:24
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 04:41
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 14:53

Client Sample ID: BS24-71 3'
Lab Sample ID: 885-11427-63
Date Collected: 09/07/24 11:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8015M/D		1	12218	AT	EET ALB	09/13/24 08:45
Total/NA	Prep	5030C			11973	AT	EET ALB	09/10/24 17:01
Total/NA	Analysis	8021B		1	12220	AT	EET ALB	09/13/24 08:45
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 04:53

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-71 3'
Lab Sample ID: 885-11427-63
Date Collected: 09/07/24 11:40
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 15:06

Client Sample ID: BS24-72 3'
Lab Sample ID: 885-11427-64
Date Collected: 09/07/24 11:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8015M/D		1	12296	AT	EET ALB	09/14/24 02:39
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8021B		1	12297	AT	EET ALB	09/14/24 02:39
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 05:05
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 15:19

Client Sample ID: BS24-73 3'
Lab Sample ID: 885-11427-65
Date Collected: 09/07/24 11:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8015M/D		1	12296	AT	EET ALB	09/14/24 03:44
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8021B		1	12297	AT	EET ALB	09/14/24 03:44
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 05:17
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 15:32

Client Sample ID: BS24-74 3'
Lab Sample ID: 885-11427-66
Date Collected: 09/07/24 11:45
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8015M/D		1	12296	AT	EET ALB	09/14/24 04:49
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8021B		1	12297	AT	EET ALB	09/14/24 04:49
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 05:29
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 15:45

Lab Chronicle

Client: Vertex
Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-76 3'
Lab Sample ID: 885-11427-67
Date Collected: 09/07/24 11:50
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8015M/D		1	12296	AT	EET ALB	09/14/24 05:11
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8021B		1	12297	AT	EET ALB	09/14/24 05:11
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 05:41
Total/NA	Prep	300_Prep			12203	EH	EET ALB	09/13/24 09:02
Total/NA	Analysis	300.0		20	12227	EH	EET ALB	09/13/24 15:58

Client Sample ID: BS24-78 3'
Lab Sample ID: 885-11427-68
Date Collected: 09/07/24 11:50
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8015M/D		1	12296	AT	EET ALB	09/14/24 05:33
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8021B		1	12297	AT	EET ALB	09/14/24 05:33
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 05:53
Total/NA	Prep	300_Prep			12213	EH	EET ALB	09/13/24 10:05
Total/NA	Analysis	300.0		20	12355	JT	EET ALB	09/16/24 09:44

Client Sample ID: BS24-80 3'
Lab Sample ID: 885-11427-69
Date Collected: 09/07/24 11:50
Matrix: Solid
Date Received: 09/10/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8015M/D		1	12296	AT	EET ALB	09/14/24 05:55
Total/NA	Prep	5030C			12010	JP	EET ALB	09/11/24 11:28
Total/NA	Analysis	8021B		1	12297	AT	EET ALB	09/14/24 05:55
Total/NA	Prep	SHAKE			12134	KR	EET ALB	09/12/24 13:23
Total/NA	Analysis	8015M/D		1	12120	KR	EET ALB	09/13/24 06:05
Total/NA	Prep	300_Prep			12213	EH	EET ALB	09/13/24 10:05
Total/NA	Analysis	300.0		20	12355	JT	EET ALB	09/16/24 09:59

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-11427-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time: 5 Day Push
☐ Standard

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 + 0.1 = 1.2 °c

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-11427 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
9.7.24	8:30	Soil	BS24-01 3'	4oz Jar	ICE	1	x	x					x								
9.7.24	8:35	Soil	BS24-02 3'	4oz Jar	ICE	2	x	x					x								
9.7.24	8:40	Soil	BS24-03 3'	4oz Jar	ICE	3	x	x					x								
9.7.24	8:45	Soil	BS24-04 3'	4oz Jar	ICE	4	x	x					x								
9.7.24	8:50	Soil	BS24-05 3'	4oz Jar	ICE	5	x	x					x								
9.7.24	8:55	Soil	BS24-06 3'	4oz Jar	ICE	6	x	x					x								
9.7.24	9:00	Soil	BS24-07 3'	4oz Jar	ICE	7	x	x					x								
9.7.24	9:05	Soil	BS24-08 3'	4oz Jar	ICE	8	x	x					x								
9.7.24	9:10	Soil	BS24-09 3'	4oz Jar	ICE	9	x	x					x								
9.7.24	9:15	Soil	BS24-10 3'	4oz Jar	ICE	10	x	x					x								
9.7.24	9:20	Soil	BS24-11 3'	4oz Jar	ICE	11	x	x					x								
9.7.24	9:25	Soil	BS24-12 3'	4oz Jar	ICE	12	x	x					x								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9.9.24	1900			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day Rush
☐ Standard

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 = 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.7.24	9:30	Soil	BS24-13 3'	4oz Jar	ICE	13	x	x					x			
9.7.24	9:35	Soil	BS24-14 3'	4oz Jar	ICE	14	x	x					x			
9.7.24	9:40	Soil	BS24-15 3'	4oz Jar	ICE	15	x	x					x			
9.7.24	9:45	Soil	BS24-16 3'	4oz Jar	ICE	16	x	x					x			
9.7.24	9:50	Soil	BS24-17 3'	4oz Jar	ICE	17	x	x					x			
9.7.24	9:55	Soil	BS24-18 3'	4oz Jar	ICE	18	x	x					x			
9.7.24	10:00	Soil	BS24-19 3'	4oz Jar	ICE	19	x	x					x			
9.7.24	10:00	Soil	BS24-20 3'	4oz Jar	ICE	20	x	x					x			
9.7.24	10:00	Soil	BS24-21 3'	4oz Jar	ICE	21	x	x					x			
9.7.24	10:05	Soil	BS24-22 3'	4oz Jar	ICE	22	x	x					x			
9.7.24	10:05	Soil	BS24-23 3'	4oz Jar	ICE	23	x	x					x			
9.7.24	10:05	Soil	BS24-24 3'	4oz Jar	ICE	24	x	x					x			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9-9-24	1015				9/9/24	1015
9/9/24	1900			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr, Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☐ Standard 5 Day Rush

Project Name: **Dawson Creek State #2**

Project #: **24E-03166**

Project Manager: **Sally Carttar**

Scarttar@vertexresource.com

Sampler: J. Rewis

On Ice: ☑ Yes ☐ No mojo

# of Coolers: 1

Cooler Temp(including CF): 1.1 +0.1 = 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.7.24	10:10	Soil	BS24-25 3'	4oz Jar	ICE	25	x	x					x			
9.7.24	10:10	Soil	BS24-26 3'	4oz Jar	ICE	26	x	x					x			
9.7.24	10:10	Soil	BS24-27 3'	4oz Jar	ICE	27	x	x					x			
9.7.24	10:15	Soil	BS24-29 3'	4oz Jar	ICE	28	x	x					x			
9.7.24	10:15	Soil	BS24-30 3'	4oz Jar	ICE	29	x	x					x			
9.7.24	10:15	Soil	BS24-31 3'	4oz Jar	ICE	30	x	x					x			
9.7.24	10:20	Soil	BS24-32 3'	4oz Jar	ICE	31	x	x					x			
9.7.24	10:20	Soil	BS24-33 3'	4oz Jar	ICE	32	x	x					x			
9.7.24	10:20	Soil	BS24-34 3'	4oz Jar	ICE	33	x	x					x			
9.7.24	10:25	Soil	BS24-35 3'	4oz Jar	ICE	34	x	x					x			
9.7.24	10:25	Soil	BS24-36 3'	4oz Jar	ICE	35	x	x					x			
9.7.24	10:25	Soil	BS24-37 3'	4oz Jar	ICE	36	x	x					x			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9/9/24	1910			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time: 5 Day push
☑ Standard

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 = 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.7.24	10:30	Soil	BS24-39 3'	4oz Jar	ICE	37	x	x					x			
9.7.24	10:30	Soil	BS24-41 3'	4oz Jar	ICE	38	x	x					x			
9.7.24	10:30	Soil	BS24-42 3'	4oz Jar	ICE	39	x	x					x			
9.7.24	10:35	Soil	BS24-43 3'	4oz Jar	ICE	40	x	x					x			
9.7.24	10:35	Soil	BS24-44 3'	4oz Jar	ICE	41	x	x					x			
9.7.24	10:35	Soil	BS24-46 3'	4oz Jar	ICE	42	x	x					x			
9.7.24	10:40	Soil	BS24-47 3'	4oz Jar	ICE	43	x	x					x			
9.7.24	10:40	Soil	BS24-48 3'	4oz Jar	ICE	44	x	x					x			
9.7.24	10:40	Soil	BS24-50 3'	4oz Jar	ICE	45	x	x					x			
9.7.24	10:45	Soil	BS24-51 3'	4oz Jar	ICE	46	x	x					x			
9.7.24	10:45	Soil	BS24-52 3'	4oz Jar	ICE	47	x	x					x			
9.7.24	10:50	Soil	BS24-53 3'	4oz Jar	ICE	48	x	x					x			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9/9/24	1900			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr, Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day Rush
☐ Standard ☑ Rush ~~48 hr~~

Project Name: **Dawson Creek State #2**

Project #: **24E-03166**

Project Manager: **Sally Carttar**

Scarttar@vertexresource.com

Sampler: J. Rewis

On Ice: ☑ Yes ☐ No maja

# of Coolers: 1

Cooler Temp(including CF): 1.1 +0.1 = 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
9.7.24	11:00	Soil	BS2455- 3'	4oz Jar	ICE	49	x	x					x								
9.7.24	11:00	Soil	BS24-56 3'	4oz Jar	ICE	50	x	x					x								
9.7.24	11:00	Soil	BS24-57 3'	4oz Jar	ICE	51	x	x					x								
9.7.24	11:10	Soil	BS24-58 3'	4oz Jar	ICE	52	x	x					x								
9.7.24	11:10	Soil	BS24-59 3'	4oz Jar	ICE	53	x	x					x								
9.7.24	11:10	Soil	BS24-60 3'	4oz Jar	ICE	54	x	x					x								
9.7.24	11:15	Soil	BS24-61 3'	4oz Jar	ICE	55	x	x					x								
9.7.24	11:15	Soil	BS24-64 3'	4oz Jar	ICE	56	x	x					x								
9.7.24	11:15	Soil	BS24-65 3'	4oz Jar	ICE	57	x	x					x								
9.7.24	11:20	Soil	BS24-66 3'	4oz Jar	ICE	58	x	x					x								
9.7.24	11:20	Soil	BS24-67 3'	4oz Jar	ICE	59	x	x					x								
9.7.24	11:20	Soil	BS24-68 3'	4oz Jar	ICE	60	x	x					x								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.19.24	1015				9/9/24	1015
9/9/24	1900			Courier	9/10/24	8:25

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr, Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard 5 Day Rush

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☒ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 = 1.2 ~

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
9.7.24	11:40	Soil	BS24-69 3'	4oz Jar	ICE	61	x	x					x								
9.7.24	11:40	Soil	BS24-70 3'	4oz Jar	ICE	62	x	x					x								
9.7.24	11:40	Soil	BS24-71 3'	4oz Jar	ICE	63	x	x					x								
9.7.24	11:45	Soil	BS24-72 3'	4oz Jar	ICE	64	x	x					x								
9.7.24	11:45	Soil	BS24-73 3'	4oz Jar	ICE	65	x	x					x								
9.7.24	11:45	Soil	BS24-74 3'	4oz Jar	ICE	66	x	x					x								
9.7.24	11:50	Soil	BS24-76 3'	4oz Jar	ICE	67	x	x					x								
9.7.24	11:50	Soil	BS24-78 3'	4oz Jar	ICE	68	x	x					x								
9.7.24	11:50	Soil	BS24-80 3'	4oz Jar	ICE	69	x	x					x								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9/9/24	1910			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time: 5 Day Push
☐ Standard

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 + 0.1 = 1.2 °c

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-11427 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.7.24	8:30	Soil	BS24-01 3'	4oz Jar	ICE	1	x	x					x			
9.7.24	8:35	Soil	BS24-02 3'	4oz Jar	ICE	2	x	x					x			
9.7.24	8:40	Soil	BS24-03 3'	4oz Jar	ICE	3	x	x					x			
9.7.24	8:45	Soil	BS24-04 3'	4oz Jar	ICE	4	x	x					x			
9.7.24	8:50	Soil	BS24-05 3'	4oz Jar	ICE	5	x	x					x			
9.7.24	8:55	Soil	BS24-06 3'	4oz Jar	ICE	6	x	x					x			
9.7.24	9:00	Soil	BS24-07 3'	4oz Jar	ICE	7	x	x					x			
9.7.24	9:05	Soil	BS24-08 3'	4oz Jar	ICE	8	x	x					x			
9.7.24	9:10	Soil	BS24-09 3'	4oz Jar	ICE	9	x	x					x			
9.7.24	9:15	Soil	BS24-10 3'	4oz Jar	ICE	10	x	x					x			
9.7.24	9:20	Soil	BS24-11 3'	4oz Jar	ICE	11	x	x					x			
9.7.24	9:25	Soil	BS24-12 3'	4oz Jar	ICE	12	x	x					x			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9.9.24	1900			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day Rush
☑ Standard ☐

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 = 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.7.24	9:30	Soil	BS24-13 3'	4oz Jar	ICE	13	x	x					x			
9.7.24	9:35	Soil	BS24-14 3'	4oz Jar	ICE	14	x	x					x			
9.7.24	9:40	Soil	BS24-15 3'	4oz Jar	ICE	15	x	x					x			
9.7.24	9:45	Soil	BS24-16 3'	4oz Jar	ICE	16	x	x					x			
9.7.24	9:50	Soil	BS24-17 3'	4oz Jar	ICE	17	x	x					x			
9.7.24	9:55	Soil	BS24-18 3'	4oz Jar	ICE	18	x	x					x			
9.7.24	10:00	Soil	BS24-19 3'	4oz Jar	ICE	19	x	x					x			
9.7.24	10:00	Soil	BS24-20 3'	4oz Jar	ICE	20	x	x					x			
9.7.24	10:00	Soil	BS24-21 3'	4oz Jar	ICE	21	x	x					x			
9.7.24	10:05	Soil	BS24-22 3'	4oz Jar	ICE	22	x	x					x			
9.7.24	10:05	Soil	BS24-23 3'	4oz Jar	ICE	23	x	x					x			
9.7.24	10:05	Soil	BS24-24 3'	4oz Jar	ICE	24	x	x					x			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9/9/24	1015				9/9/24	1015
9/9/24	1900			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted ~~to other accredited laboratories~~. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day Rush
☐ Standard

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 : 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
9.7.24	10:10	Soil	BS24-25 3'	4oz Jar	ICE	25	x	x					x								
9.7.24	10:10	Soil	BS24-26 3'	4oz Jar	ICE	26	x	x					x								
9.7.24	10:10	Soil	BS24-27 3'	4oz Jar	ICE	27	x	x					x								
9.7.24	10:15	Soil	BS24-29 3'	4oz Jar	ICE	28	x	x					x								
9.7.24	10:15	Soil	BS24-30 3'	4oz Jar	ICE	29	x	x					x								
9.7.24	10:15	Soil	BS24-31 3'	4oz Jar	ICE	30	x	x					x								
9.7.24	10:20	Soil	BS24-32 3'	4oz Jar	ICE	31	x	x					x								
9.7.24	10:20	Soil	BS24-33 3'	4oz Jar	ICE	32	x	x					x								
9.7.24	10:20	Soil	BS24-34 3'	4oz Jar	ICE	33	x	x					x								
9.7.24	10:25	Soil	BS24-35 3'	4oz Jar	ICE	34	x	x					x								
9.7.24	10:25	Soil	BS24-36 3'	4oz Jar	ICE	35	x	x					x								
9.7.24	10:25	Soil	BS24-37 3'	4oz Jar	ICE	36	x	x					x								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9/9/24	1910			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time: 5 Day push
☑ Standard

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mgs
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 = 1.2 °

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
9.7.24	10:30	Soil	BS24-39 3'	4oz Jar	ICE	37	x	x					x									
9.7.24	10:30	Soil	BS24-41 3'	4oz Jar	ICE	38	x	x					x									
9.7.24	10:30	Soil	BS24-42 3'	4oz Jar	ICE	39	x	x					x									
9.7.24	10:35	Soil	BS24-43 3'	4oz Jar	ICE	40	x	x					x									
9.7.24	10:35	Soil	BS24-44 3'	4oz Jar	ICE	41	x	x					x									
9.7.24	10:35	Soil	BS24-46 3'	4oz Jar	ICE	42	x	x					x									
9.7.24	10:40	Soil	BS24-47 3'	4oz Jar	ICE	43	x	x					x									
9.7.24	10:40	Soil	BS24-48 3'	4oz Jar	ICE	44	x	x					x									
9.7.24	10:40	Soil	BS24-50 3'	4oz Jar	ICE	45	x	x					x									
9.7.24	10:45	Soil	BS24-51 3'	4oz Jar	ICE	46	x	x					x									
9.7.24	10:45	Soil	BS24-52 3'	4oz Jar	ICE	47	x	x					x									
9.7.24	10:50	Soil	BS24-53 3'	4oz Jar	ICE	48	x	x					x									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9.9.24	1900			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 Days Rush
☐ Standard ☑ Rush ~~48 hr~~

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 = 1.2 °

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
9.7.24	11:00	Soil	BS2455- 3'	4oz Jar	ICE	49	x	x					x								
9.7.24	11:00	Soil	BS24-56 3'	4oz Jar	ICE	50	x	x					x								
9.7.24	11:00	Soil	BS24-57 3'	4oz Jar	ICE	51	x	x					x								
9.7.24	11:10	Soil	BS24-58 3'	4oz Jar	ICE	52	x	x					x								
9.7.24	11:10	Soil	BS24-59 3'	4oz Jar	ICE	53	x	x					x								
9.7.24	11:10	Soil	BS24-60 3'	4oz Jar	ICE	54	x	x					x								
9.7.24	11:15	Soil	BS24-61 3'	4oz Jar	ICE	55	x	x					x								
9.7.24	11:15	Soil	BS24-64 3'	4oz Jar	ICE	56	x	x					x								
9.7.24	11:15	Soil	BS24-65 3'	4oz Jar	ICE	57	x	x					x								
9.7.24	11:20	Soil	BS24-66 3'	4oz Jar	ICE	58	x	x					x								
9.7.24	11:20	Soil	BS24-67 3'	4oz Jar	ICE	59	x	x					x								
9.7.24	11:20	Soil	BS24-68 3'	4oz Jar	ICE	60	x	x					x								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9/9/24	1900			Courier	9/10/24	8:25

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM

Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy)**

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard 5 Day Rush

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar
Scarttar@vertexresource.com

Sampler: J. Rewis
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 1.1 +0.1 = 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.7.24	11:40	Soil	BS24-69 3'	4oz Jar	ICE	61	x	x					x			
9.7.24	11:40	Soil	BS24-70 3'	4oz Jar	ICE	62	x	x					x			
9.7.24	11:40	Soil	BS24-71 3'	4oz Jar	ICE	63	x	x					x			
9.7.24	11:45	Soil	BS24-72 3'	4oz Jar	ICE	64	x	x					x			
9.7.24	11:45	Soil	BS24-73 3'	4oz Jar	ICE	65	x	x					x			
9.7.24	11:45	Soil	BS24-74 3'	4oz Jar	ICE	66	x	x					x			
9.7.24	11:50	Soil	BS24-76 3'	4oz Jar	ICE	67	x	x					x			
9.7.24	11:50	Soil	BS24-78 3'	4oz Jar	ICE	68	x	x					x			
9.7.24	11:50	Soil	BS24-80 3'	4oz Jar	ICE	69	x	x					x			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9.9.24	1015				9/9/24	1015
9/9/24	1910			courier	9/10/24	8:05

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (Mack)
CC: Sally Carttar scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-11427-1

Login Number: 11427 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	False	Sample #22 arrived empty
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Refer to Job Narrative for details.
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 9/27/2024 6:05:55 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-11925-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
9/27/2024 6:05:55 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-11925-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 12
QC Association Summary 16
Lab Chronicle 18
Certification Summary 20
Chain of Custody 21
Receipt Checklists 22

Definitions/Glossary

Client: Vertex Job ID: 885-11925-1
Project/Site: Dawson Creek State #2

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-11925-1
Project: Dawson Creek State #2

Job ID: 885-11925-1 Eurofins Albuquerque

Job Narrative
885-11925-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/17/2024 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3°C and 0.7°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-12540 recovered above the upper control limit for Diesel Range Organics [C10-C28]. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: WS24-1 3' (885-11925-1), WS24-2 3' (885-11925-2), WS24-3 3' (885-11925-3), WS24-4 2' (885-11925-4), WS24-5 2' (885-11925-5) and WS24-8 3' (885-11925-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-11925-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-1 3'
Lab Sample ID: 885-11925-1
Date Collected: 09/09/24 09:00
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*09/17/24 14:30*	*09/21/24 12:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 12:38	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 12:38	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 12:38	1
Xylenes, Total	ND		0.096		mg/Kg		09/17/24 14:30	09/21/24 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*09/17/24 14:30*	*09/21/24 12:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/18/24 10:34	09/19/24 10:39	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/18/24 10:34	09/19/24 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*09/18/24 10:34*	*09/19/24 10:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/18/24 13:34	09/18/24 17:05	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Client Sample ID: WS24-2 3'

Date Collected: 09/09/24 09:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11925-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/17/24 14:30	09/21/24 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/17/24 14:30*	*09/21/24 13:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 13:45	1
Ethylbenzene	ND		0.047		mg/Kg		09/17/24 14:30	09/21/24 13:45	1
Toluene	ND		0.047		mg/Kg		09/17/24 14:30	09/21/24 13:45	1
Xylenes, Total	ND		0.094		mg/Kg		09/17/24 14:30	09/21/24 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/17/24 14:30*	*09/21/24 13:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/18/24 10:34	09/19/24 10:50	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/18/24 10:34	09/19/24 10:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*09/18/24 10:34*	*09/19/24 10:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		09/18/24 13:34	09/18/24 17:17	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Client Sample ID: WS24-3 3'

Date Collected: 09/09/24 10:00
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11925-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/17/24 14:30*	*09/21/24 14:50*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 14:50	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 14:50	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 14:50	1
Xylenes, Total	ND		0.096		mg/Kg		09/17/24 14:30	09/21/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*09/17/24 14:30*	*09/21/24 14:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/18/24 10:34	09/19/24 11:00	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/18/24 10:34	09/19/24 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*09/18/24 10:34*	*09/19/24 11:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**87**		60		mg/Kg		09/18/24 13:34	09/18/24 17:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Client Sample ID: WS24-4 2'

Date Collected: 09/09/24 10:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11925-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/17/24 14:30*	*09/21/24 15:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 15:12	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 15:12	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 15:12	1
Xylenes, Total	ND		0.096		mg/Kg		09/17/24 14:30	09/21/24 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*09/17/24 14:30*	*09/21/24 15:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/18/24 10:34	09/19/24 11:11	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/18/24 10:34	09/19/24 11:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*09/18/24 10:34*	*09/19/24 11:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		60		mg/Kg		09/18/24 13:34	09/18/24 18:31	20

Client Sample Results

Client: Vertex
Job ID: 885-11925-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-5 2'
Lab Sample ID: 885-11925-5
Date Collected: 09/09/24 11:00
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/17/24 14:30*	*09/21/24 15:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 15:34	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 15:34	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 15:34	1
Xylenes, Total	ND		0.095		mg/Kg		09/17/24 14:30	09/21/24 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/17/24 14:30*	*09/21/24 15:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/18/24 10:34	09/19/24 11:21	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/18/24 10:34	09/19/24 11:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*09/18/24 10:34*	*09/19/24 11:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1800**		60		mg/Kg		09/18/24 13:34	09/18/24 19:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Client Sample ID: WS24-8 3'

Date Collected: 09/09/24 13:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11925-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/17/24 14:30*	*09/21/24 15:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 15:56	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 15:56	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 15:56	1
Xylenes, Total	ND		0.096		mg/Kg		09/17/24 14:30	09/21/24 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*09/17/24 14:30*	*09/21/24 15:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/18/24 10:34	09/19/24 11:32	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/18/24 10:34	09/19/24 11:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*129*		*62 - 134*	*09/18/24 10:34*	*09/19/24 11:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**390**		60		mg/Kg		09/18/24 13:34	09/18/24 19:21	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-12414/1-A
Matrix: Solid
Analysis Batch: 12746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/17/24 14:30	09/21/24 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/17/24 14:30*	*09/21/24 12:17*	*1*

Lab Sample ID: LCS 885-12414/2-A
Matrix: Solid
Analysis Batch: 12746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.9		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*220*		*35 - 166*

Lab Sample ID: 885-11925-1 MS
Matrix: Solid
Analysis Batch: 12746

Client Sample ID: WS24-1 3'
Prep Type: Total/NA
Prep Batch: 12414

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		23.8	24.8		mg/Kg		104	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*230*		*35 - 166*

Lab Sample ID: 885-11925-1 MSD
Matrix: Solid
Analysis Batch: 12746

Client Sample ID: WS24-1 3'
Prep Type: Total/NA
Prep Batch: 12414

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		23.9	23.8		mg/Kg		100	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*218*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-12414/1-A
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/17/24 14:30	09/21/24 12:17	1
Ethylbenzene	ND		0.050		mg/Kg		09/17/24 14:30	09/21/24 12:17	1
Toluene	ND		0.050		mg/Kg		09/17/24 14:30	09/21/24 12:17	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-12414/1-A
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		09/17/24 14:30	09/21/24 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/17/24 14:30*	*09/21/24 12:17*	*1*

Lab Sample ID: LCS 885-12414/3-A
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.02		mg/Kg		102	70 - 130		
Ethylbenzene			1.00	1.05		mg/Kg		105	70 - 130		
m,p-Xylene			2.00	2.08		mg/Kg		104	70 - 130		
o-Xylene			1.00	1.02		mg/Kg		102	70 - 130		
Toluene			1.00	1.04		mg/Kg		104	70 - 130		
Xylenes, Total			3.00	3.10		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*

Lab Sample ID: 885-11925-2 MS
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: WS24-2 3'
Prep Type: Total/NA
Prep Batch: 12414

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.938	0.985		mg/Kg		105	70 - 130		
Ethylbenzene	ND		0.938	1.02		mg/Kg		108	70 - 130		
m,p-Xylene	ND		1.88	2.02		mg/Kg		108	70 - 130		
o-Xylene	ND		0.938	0.984		mg/Kg		105	70 - 130		
Toluene	ND		0.938	1.01		mg/Kg		107	70 - 130		
Xylenes, Total	ND		2.81	3.00		mg/Kg		107	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*

Lab Sample ID: 885-11925-2 MSD
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: WS24-2 3'
Prep Type: Total/NA
Prep Batch: 12414

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.941	0.984		mg/Kg		105	70 - 130	0	20
Ethylbenzene	ND		0.941	1.00		mg/Kg		107	70 - 130	1	20
m,p-Xylene	ND		1.88	2.00		mg/Kg		106	70 - 130	1	20
o-Xylene	ND		0.941	0.986		mg/Kg		105	70 - 130	0	20
Toluene	ND		0.941	1.00		mg/Kg		106	70 - 130	0	20
Xylenes, Total	ND		2.82	2.99		mg/Kg		106	70 - 130	1	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-11925-2 MSD
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: WS24-2 3'
Prep Type: Total/NA
Prep Batch: 12414

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-12467/1-A
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12467

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/18/24 10:34	09/19/24 10:18	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/18/24 10:34	09/19/24 10:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*09/18/24 10:34*	*09/19/24 10:18*	*1*

Lab Sample ID: LCS 885-12467/2-A
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	51.9		mg/Kg		104	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-12488/1-A
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12488

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/18/24 13:34	09/18/24 16:40	1

Lab Sample ID: LCS 885-12488/2-A
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12488

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	27.3		mg/Kg		91	90 - 110		

Lab Sample ID: 885-11925-3 MS
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: WS24-3 3'
Prep Type: Total/NA
Prep Batch: 12488

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	87		30.0	114		mg/Kg		89	50 - 150		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-11925-3 MSD
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: WS24-3 3'
Prep Type: Total/NA
Prep Batch: 12488

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	87		29.9	113		mg/Kg		86	50 - 150	1	20

Lab Sample ID: 885-11925-4 MS
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: WS24-4 2'
Prep Type: Total/NA
Prep Batch: 12488

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	380		30.1	393	4	mg/Kg		46	50 - 150

Lab Sample ID: 885-11925-4 MSD
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: WS24-4 2'
Prep Type: Total/NA
Prep Batch: 12488

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	380		30.0	390	4	mg/Kg		38	50 - 150	1	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

GC VOA

Prep Batch: 12414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11925-1	WS24-1 3'	Total/NA	Solid	5030C	
885-11925-2	WS24-2 3'	Total/NA	Solid	5030C	
885-11925-3	WS24-3 3'	Total/NA	Solid	5030C	
885-11925-4	WS24-4 2'	Total/NA	Solid	5030C	
885-11925-5	WS24-5 2'	Total/NA	Solid	5030C	
885-11925-6	WS24-8 3'	Total/NA	Solid	5030C	
MB 885-12414/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12414/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12414/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-11925-1 MS	WS24-1 3'	Total/NA	Solid	5030C	
885-11925-1 MSD	WS24-1 3'	Total/NA	Solid	5030C	
885-11925-2 MS	WS24-2 3'	Total/NA	Solid	5030C	
885-11925-2 MSD	WS24-2 3'	Total/NA	Solid	5030C	

Analysis Batch: 12734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11925-1	WS24-1 3'	Total/NA	Solid	8021B	12414
885-11925-2	WS24-2 3'	Total/NA	Solid	8021B	12414
885-11925-3	WS24-3 3'	Total/NA	Solid	8021B	12414
885-11925-4	WS24-4 2'	Total/NA	Solid	8021B	12414
885-11925-5	WS24-5 2'	Total/NA	Solid	8021B	12414
885-11925-6	WS24-8 3'	Total/NA	Solid	8021B	12414
MB 885-12414/1-A	Method Blank	Total/NA	Solid	8021B	12414
LCS 885-12414/3-A	Lab Control Sample	Total/NA	Solid	8021B	12414
885-11925-2 MS	WS24-2 3'	Total/NA	Solid	8021B	12414
885-11925-2 MSD	WS24-2 3'	Total/NA	Solid	8021B	12414

Analysis Batch: 12746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11925-1	WS24-1 3'	Total/NA	Solid	8015M/D	12414
885-11925-2	WS24-2 3'	Total/NA	Solid	8015M/D	12414
885-11925-3	WS24-3 3'	Total/NA	Solid	8015M/D	12414
885-11925-4	WS24-4 2'	Total/NA	Solid	8015M/D	12414
885-11925-5	WS24-5 2'	Total/NA	Solid	8015M/D	12414
885-11925-6	WS24-8 3'	Total/NA	Solid	8015M/D	12414
MB 885-12414/1-A	Method Blank	Total/NA	Solid	8015M/D	12414
LCS 885-12414/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12414
885-11925-1 MS	WS24-1 3'	Total/NA	Solid	8015M/D	12414
885-11925-1 MSD	WS24-1 3'	Total/NA	Solid	8015M/D	12414

GC Semi VOA

Prep Batch: 12467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11925-1	WS24-1 3'	Total/NA	Solid	SHAKE	
885-11925-2	WS24-2 3'	Total/NA	Solid	SHAKE	
885-11925-3	WS24-3 3'	Total/NA	Solid	SHAKE	
885-11925-4	WS24-4 2'	Total/NA	Solid	SHAKE	
885-11925-5	WS24-5 2'	Total/NA	Solid	SHAKE	
885-11925-6	WS24-8 3'	Total/NA	Solid	SHAKE	
MB 885-12467/1-A	Method Blank	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

GC Semi VOA (Continued)

Prep Batch: 12467 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-12467/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 12540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11925-1	WS24-1 3'	Total/NA	Solid	8015M/D	12467
885-11925-2	WS24-2 3'	Total/NA	Solid	8015M/D	12467
885-11925-3	WS24-3 3'	Total/NA	Solid	8015M/D	12467
885-11925-4	WS24-4 2'	Total/NA	Solid	8015M/D	12467
885-11925-5	WS24-5 2'	Total/NA	Solid	8015M/D	12467
885-11925-6	WS24-8 3'	Total/NA	Solid	8015M/D	12467
MB 885-12467/1-A	Method Blank	Total/NA	Solid	8015M/D	12467
LCS 885-12467/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12467

HPLC/IC

Prep Batch: 12488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11925-1	WS24-1 3'	Total/NA	Solid	300_Prep	
885-11925-2	WS24-2 3'	Total/NA	Solid	300_Prep	
885-11925-3	WS24-3 3'	Total/NA	Solid	300_Prep	
885-11925-4	WS24-4 2'	Total/NA	Solid	300_Prep	
885-11925-5	WS24-5 2'	Total/NA	Solid	300_Prep	
885-11925-6	WS24-8 3'	Total/NA	Solid	300_Prep	
MB 885-12488/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12488/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-11925-3 MS	WS24-3 3'	Total/NA	Solid	300_Prep	
885-11925-3 MSD	WS24-3 3'	Total/NA	Solid	300_Prep	
885-11925-4 MS	WS24-4 2'	Total/NA	Solid	300_Prep	
885-11925-4 MSD	WS24-4 2'	Total/NA	Solid	300_Prep	

Analysis Batch: 12498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11925-1	WS24-1 3'	Total/NA	Solid	300.0	12488
885-11925-2	WS24-2 3'	Total/NA	Solid	300.0	12488
885-11925-3	WS24-3 3'	Total/NA	Solid	300.0	12488
885-11925-4	WS24-4 2'	Total/NA	Solid	300.0	12488
885-11925-5	WS24-5 2'	Total/NA	Solid	300.0	12488
885-11925-6	WS24-8 3'	Total/NA	Solid	300.0	12488
MB 885-12488/1-A	Method Blank	Total/NA	Solid	300.0	12488
LCS 885-12488/2-A	Lab Control Sample	Total/NA	Solid	300.0	12488
885-11925-3 MS	WS24-3 3'	Total/NA	Solid	300.0	12488
885-11925-3 MSD	WS24-3 3'	Total/NA	Solid	300.0	12488
885-11925-4 MS	WS24-4 2'	Total/NA	Solid	300.0	12488
885-11925-4 MSD	WS24-4 2'	Total/NA	Solid	300.0	12488

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11925-1

Client Sample ID: WS24-1 3'

Lab Sample ID: 885-11925-1

Date Collected: 09/09/24 09:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 12:38
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 12:38
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 10:39
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 17:05

Client Sample ID: WS24-2 3'

Lab Sample ID: 885-11925-2

Date Collected: 09/09/24 09:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 13:45
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 13:45
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 10:50
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 17:17

Client Sample ID: WS24-3 3'

Lab Sample ID: 885-11925-3

Date Collected: 09/09/24 10:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 14:50
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 14:50
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 11:00
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 17:30

Client Sample ID: WS24-4 2'

Lab Sample ID: 885-11925-4

Date Collected: 09/09/24 10:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 15:12

Lab Chronicle

Client: Vertex
Job ID: 885-11925-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-4 2'
Lab Sample ID: 885-11925-4
Date Collected: 09/09/24 10:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 15:12
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 11:11
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 18:31

Client Sample ID: WS24-5 2'
Lab Sample ID: 885-11925-5
Date Collected: 09/09/24 11:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 15:34
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 15:34
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 11:21
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 19:08

Client Sample ID: WS24-8 3'
Lab Sample ID: 885-11925-6
Date Collected: 09/09/24 13:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 15:56
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 15:56
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 11:32
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 19:21

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-11925-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (bill to [redacted] Mack Energy)

Mailing Address: 3101 Boyd Dr,
Carlsbad, NM, 88220

Phone #: 575 725-5001

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush 5 Days

Project Name:
Dawson Creek State #2

Project #:
24E-03166

Project Manager:
Sally Carttar

Scarttar@vertexresource.com

Sampler: K. Taylor

On Ice: ☒ Yes ☐ No

# of Coolers: +2 (1 small, 1 chucky)

Cooler Temp(including CF): 0.5-0.2=0.3
0.4-0.2=0.2

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710
Tel. 505-345-3975 Fax 505-345-4107

885-11925 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX MTBE / TMB's (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.09.24	9:00	Soil	WS24-1 3'	4oz Jar	ICE	1	x	x					x			
9.09.24	9:30	Soil	WS24-2 3'	4oz Jar	ICE	2	x	x					x			
9.09.24	10:00	Soil	WS24-3 3'	4oz Jar	ICE	3	x	x					x			
9.09.24	10:30	Soil	WS24-4 2'	4oz Jar	ICE	4	x	x					x			
9.09.24	11:00	Soil	WS24-5 2'	4oz Jar	ICE	5	x	x					x			
9.09.24	1:30	Soil	WS24-8 3'	4oz Jar	ICE	6	x	x					x			

Date	Time	Relinquished by	Received by	Via	Date	Time
9/12	7:00	Katrina Taylor			9/16/24	1015
9/16/24	1900		Corrie		9/17/24	8:15

Remarks: Mack
Direct Bill to [redacted] Energy,
ATTN: Matt Buckles (mattbuckles@mec.com)
CC: Sally Carttar (Scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-11925-1

Login Number: 11925 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 9/27/2024 6:05:54 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-11928-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
9/27/2024 6:05:54 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-11928-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 13
QC Association Summary 15
Lab Chronicle 17
Certification Summary 20
Chain of Custody 21
Receipt Checklists 22

Definitions/Glossary

Client: Vertex Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-11928-1
Project: Dawson Creek State #2

Job ID: 885-11928-1 Eurofins Albuquerque

Job Narrative
885-11928-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/17/2024 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-12540 recovered above the upper control limit for Diesel Range Organics [C10-C28]. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: WS24-10 5' (885-11928-1), WS24-11 3' (885-11928-2), WS24-12 3' (885-11928-3), WS24-14 3' (885-11928-4), WS24-15 2' (885-11928-5), WS24-16 5' (885-11928-6) and WS24-17 5' (885-11928-7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-10 5'
Lab Sample ID: 885-11928-1
Date Collected: 09/11/24 09:00
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/17/24 14:30	09/21/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/17/24 14:30*	*09/21/24 16:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/17/24 14:30	09/21/24 16:17	1
Ethylbenzene	ND		0.049		mg/Kg		09/17/24 14:30	09/21/24 16:17	1
Toluene	ND		0.049		mg/Kg		09/17/24 14:30	09/21/24 16:17	1
Xylenes, Total	ND		0.098		mg/Kg		09/17/24 14:30	09/21/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*09/17/24 14:30*	*09/21/24 16:17*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/18/24 10:34	09/19/24 11:43	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/18/24 10:34	09/19/24 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*09/18/24 10:34*	*09/19/24 11:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		09/18/24 13:34	09/18/24 19:33	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

Client Sample ID: WS24-11 3'

Date Collected: 09/11/24 09:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11928-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*09/17/24 14:30*	*09/21/24 16:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 16:39	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 16:39	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 16:39	1
Xylenes, Total	ND		0.097		mg/Kg		09/17/24 14:30	09/21/24 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*09/17/24 14:30*	*09/21/24 16:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/18/24 10:34	09/19/24 11:53	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/18/24 10:34	09/19/24 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*09/18/24 10:34*	*09/19/24 11:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/18/24 13:34	09/18/24 19:46	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

Client Sample ID: WS24-12 3'

Date Collected: 09/11/24 10:00
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11928-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/17/24 14:30	09/21/24 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/17/24 14:30*	*09/21/24 17:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/17/24 14:30	09/21/24 17:01	1
Ethylbenzene	ND		0.046		mg/Kg		09/17/24 14:30	09/21/24 17:01	1
Toluene	ND		0.046		mg/Kg		09/17/24 14:30	09/21/24 17:01	1
Xylenes, Total	ND		0.093		mg/Kg		09/17/24 14:30	09/21/24 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*09/17/24 14:30*	*09/21/24 17:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/18/24 10:34	09/19/24 12:15	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/18/24 10:34	09/19/24 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/18/24 10:34*	*09/19/24 12:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/18/24 13:34	09/18/24 19:58	20

Client Sample Results

Client: Vertex
Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-14 3'
Lab Sample ID: 885-11928-4
Date Collected: 09/11/24 10:30
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/17/24 14:30	09/21/24 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*35 - 166*	*09/17/24 14:30*	*09/21/24 17:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/17/24 14:30	09/21/24 17:23	1
Ethylbenzene	ND		0.046		mg/Kg		09/17/24 14:30	09/21/24 17:23	1
Toluene	ND		0.046		mg/Kg		09/17/24 14:30	09/21/24 17:23	1
Xylenes, Total	ND		0.092		mg/Kg		09/17/24 14:30	09/21/24 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/17/24 14:30*	*09/21/24 17:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/18/24 10:34	09/19/24 12:26	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/18/24 10:34	09/19/24 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/18/24 10:34*	*09/19/24 12:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62**		60		mg/Kg		09/18/24 13:34	09/18/24 20:10	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

Client Sample ID: WS24-15 2'

Date Collected: 09/11/24 11:00
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11928-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*09/17/24 14:30*	*09/21/24 18:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 18:06	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 18:06	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 18:06	1
Xylenes, Total	ND		0.097		mg/Kg		09/17/24 14:30	09/21/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*09/17/24 14:30*	*09/21/24 18:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/18/24 10:34	09/19/24 12:37	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/18/24 10:34	09/19/24 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/18/24 10:34*	*09/19/24 12:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		09/18/24 13:34	09/18/24 20:47	20

Client Sample Results

Client: Vertex
Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-16 5'
Lab Sample ID: 885-11928-6
Date Collected: 09/11/24 11:30
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		09/17/24 14:30	09/21/24 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/17/24 14:30*	*09/21/24 18:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/17/24 14:30	09/21/24 18:28	1
Ethylbenzene	ND		0.046		mg/Kg		09/17/24 14:30	09/21/24 18:28	1
Toluene	ND		0.046		mg/Kg		09/17/24 14:30	09/21/24 18:28	1
Xylenes, Total	ND		0.093		mg/Kg		09/17/24 14:30	09/21/24 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*	*09/17/24 14:30*	*09/21/24 18:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		09/18/24 10:34	09/19/24 12:47	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/18/24 10:34	09/19/24 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*09/18/24 10:34*	*09/19/24 12:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**370**		60		mg/Kg		09/18/24 13:34	09/18/24 21:00	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

Client Sample ID: WS24-17 5'

Date Collected: 09/11/24 12:00
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11928-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 14:30	09/21/24 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/17/24 14:30*	*09/21/24 18:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 14:30	09/21/24 18:49	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 18:49	1
Toluene	ND		0.048		mg/Kg		09/17/24 14:30	09/21/24 18:49	1
Xylenes, Total	ND		0.097		mg/Kg		09/17/24 14:30	09/21/24 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*09/17/24 14:30*	*09/21/24 18:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		09/18/24 10:34	09/19/24 12:58	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/18/24 10:34	09/19/24 12:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/18/24 10:34*	*09/19/24 12:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**310**		60		mg/Kg		09/18/24 13:34	09/18/24 21:12	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-12414/1-A
Matrix: Solid
Analysis Batch: 12746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/17/24 14:30	09/21/24 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/17/24 14:30*	*09/21/24 12:17*	*1*

Lab Sample ID: LCS 885-12414/2-A
Matrix: Solid
Analysis Batch: 12746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.9		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*220*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-12414/1-A
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/17/24 14:30	09/21/24 12:17	1
Ethylbenzene	ND		0.050		mg/Kg		09/17/24 14:30	09/21/24 12:17	1
Toluene	ND		0.050		mg/Kg		09/17/24 14:30	09/21/24 12:17	1
Xylenes, Total	ND		0.10		mg/Kg		09/17/24 14:30	09/21/24 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/17/24 14:30*	*09/21/24 12:17*	*1*

Lab Sample ID: LCS 885-12414/3-A
Matrix: Solid
Analysis Batch: 12734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.02		mg/Kg		102	70 - 130		
Ethylbenzene			1.00	1.05		mg/Kg		105	70 - 130		
m,p-Xylene			2.00	2.08		mg/Kg		104	70 - 130		
o-Xylene			1.00	1.02		mg/Kg		102	70 - 130		
Toluene			1.00	1.04		mg/Kg		104	70 - 130		
Xylenes, Total			3.00	3.10		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-12467/1-A
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12467

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/18/24 10:34	09/19/24 10:18	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/18/24 10:34	09/19/24 10:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*09/18/24 10:34*	*09/19/24 10:18*	*1*

Lab Sample ID: LCS 885-12467/2-A
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	51.9		mg/Kg		104	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-12488/1-A
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12488

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/18/24 13:34	09/18/24 16:40	1

Lab Sample ID: LCS 885-12488/2-A
Matrix: Solid
Analysis Batch: 12498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12488

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	27.3		mg/Kg		91	90 - 110		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

GC VOA

Prep Batch: 12414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11928-1	WS24-10 5'	Total/NA	Solid	5030C	
885-11928-2	WS24-11 3'	Total/NA	Solid	5030C	
885-11928-3	WS24-12 3'	Total/NA	Solid	5030C	
885-11928-4	WS24-14 3'	Total/NA	Solid	5030C	
885-11928-5	WS24-15 2'	Total/NA	Solid	5030C	
885-11928-6	WS24-16 5'	Total/NA	Solid	5030C	
885-11928-7	WS24-17 5'	Total/NA	Solid	5030C	
MB 885-12414/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12414/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12414/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 12734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11928-1	WS24-10 5'	Total/NA	Solid	8021B	12414
885-11928-2	WS24-11 3'	Total/NA	Solid	8021B	12414
885-11928-3	WS24-12 3'	Total/NA	Solid	8021B	12414
885-11928-4	WS24-14 3'	Total/NA	Solid	8021B	12414
885-11928-5	WS24-15 2'	Total/NA	Solid	8021B	12414
885-11928-6	WS24-16 5'	Total/NA	Solid	8021B	12414
885-11928-7	WS24-17 5'	Total/NA	Solid	8021B	12414
MB 885-12414/1-A	Method Blank	Total/NA	Solid	8021B	12414
LCS 885-12414/3-A	Lab Control Sample	Total/NA	Solid	8021B	12414

Analysis Batch: 12746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11928-1	WS24-10 5'	Total/NA	Solid	8015M/D	12414
885-11928-2	WS24-11 3'	Total/NA	Solid	8015M/D	12414
885-11928-3	WS24-12 3'	Total/NA	Solid	8015M/D	12414
885-11928-4	WS24-14 3'	Total/NA	Solid	8015M/D	12414
885-11928-5	WS24-15 2'	Total/NA	Solid	8015M/D	12414
885-11928-6	WS24-16 5'	Total/NA	Solid	8015M/D	12414
885-11928-7	WS24-17 5'	Total/NA	Solid	8015M/D	12414
MB 885-12414/1-A	Method Blank	Total/NA	Solid	8015M/D	12414
LCS 885-12414/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12414

GC Semi VOA

Prep Batch: 12467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11928-1	WS24-10 5'	Total/NA	Solid	SHAKE	
885-11928-2	WS24-11 3'	Total/NA	Solid	SHAKE	
885-11928-3	WS24-12 3'	Total/NA	Solid	SHAKE	
885-11928-4	WS24-14 3'	Total/NA	Solid	SHAKE	
885-11928-5	WS24-15 2'	Total/NA	Solid	SHAKE	
885-11928-6	WS24-16 5'	Total/NA	Solid	SHAKE	
885-11928-7	WS24-17 5'	Total/NA	Solid	SHAKE	
MB 885-12467/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12467/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11928-1

GC Semi VOA

Analysis Batch: 12540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11928-1	WS24-10 5'	Total/NA	Solid	8015M/D	12467
885-11928-2	WS24-11 3'	Total/NA	Solid	8015M/D	12467
885-11928-3	WS24-12 3'	Total/NA	Solid	8015M/D	12467
885-11928-4	WS24-14 3'	Total/NA	Solid	8015M/D	12467
885-11928-5	WS24-15 2'	Total/NA	Solid	8015M/D	12467
885-11928-6	WS24-16 5'	Total/NA	Solid	8015M/D	12467
885-11928-7	WS24-17 5'	Total/NA	Solid	8015M/D	12467
MB 885-12467/1-A	Method Blank	Total/NA	Solid	8015M/D	12467
LCS 885-12467/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12467

HPLC/IC

Prep Batch: 12488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11928-1	WS24-10 5'	Total/NA	Solid	300_Prep	
885-11928-2	WS24-11 3'	Total/NA	Solid	300_Prep	
885-11928-3	WS24-12 3'	Total/NA	Solid	300_Prep	
885-11928-4	WS24-14 3'	Total/NA	Solid	300_Prep	
885-11928-5	WS24-15 2'	Total/NA	Solid	300_Prep	
885-11928-6	WS24-16 5'	Total/NA	Solid	300_Prep	
885-11928-7	WS24-17 5'	Total/NA	Solid	300_Prep	
MB 885-12488/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12488/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 12498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11928-1	WS24-10 5'	Total/NA	Solid	300.0	12488
885-11928-2	WS24-11 3'	Total/NA	Solid	300.0	12488
885-11928-3	WS24-12 3'	Total/NA	Solid	300.0	12488
885-11928-4	WS24-14 3'	Total/NA	Solid	300.0	12488
885-11928-5	WS24-15 2'	Total/NA	Solid	300.0	12488
885-11928-6	WS24-16 5'	Total/NA	Solid	300.0	12488
885-11928-7	WS24-17 5'	Total/NA	Solid	300.0	12488
MB 885-12488/1-A	Method Blank	Total/NA	Solid	300.0	12488
LCS 885-12488/2-A	Lab Control Sample	Total/NA	Solid	300.0	12488

Lab Chronicle

Client: Vertex
Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-10 5'
Lab Sample ID: 885-11928-1
Date Collected: 09/11/24 09:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 16:17
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 16:17
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 11:43
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 19:33

Client Sample ID: WS24-11 3'
Lab Sample ID: 885-11928-2
Date Collected: 09/11/24 09:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 16:39
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 16:39
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 11:53
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 19:46

Client Sample ID: WS24-12 3'
Lab Sample ID: 885-11928-3
Date Collected: 09/11/24 10:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 17:01
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 17:01
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 12:15
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 19:58

Client Sample ID: WS24-14 3'
Lab Sample ID: 885-11928-4
Date Collected: 09/11/24 10:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 17:23

Lab Chronicle

Client: Vertex
Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-14 3'
Lab Sample ID: 885-11928-4
Date Collected: 09/11/24 10:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 17:23
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 12:26
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 20:10

Client Sample ID: WS24-15 2'
Lab Sample ID: 885-11928-5
Date Collected: 09/11/24 11:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 18:06
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 18:06
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 12:37
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 20:47

Client Sample ID: WS24-16 5'
Lab Sample ID: 885-11928-6
Date Collected: 09/11/24 11:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 18:28
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 18:28
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 12:47
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 21:00

Client Sample ID: WS24-17 5'
Lab Sample ID: 885-11928-7
Date Collected: 09/11/24 12:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8015M/D		1	12746	AT	EET ALB	09/21/24 18:49
Total/NA	Prep	5030C			12414	JR	EET ALB	09/17/24 14:30
Total/NA	Analysis	8021B		1	12734	AT	EET ALB	09/21/24 18:49

Lab Chronicle

Client: Vertex
Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-17 5'
Lab Sample ID: 885-11928-7

Date Collected: 09/11/24 12:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12467	EM	EET ALB	09/18/24 10:34
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 12:58
Total/NA	Prep	300_Prep			12488	KB	EET ALB	09/18/24 13:34
Total/NA	Analysis	300.0		20	12498	EH	EET ALB	09/18/24 21:12

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-11928-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: **Vertex (bill to Mack)**

Mailing Address: 3101 Boyd Dr, Carlsbad, NM, 88220

Phone #: 575 725-5001

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush 5 Days

Project Name: **Dawson Creek State #2**

Project #: **24E-03166**

Project Manager: **Sally Carttar**

Scarttar@vertexresource.com

Sampler: K. Taylor

On Ice: ☒ Yes ☐ No

# of Coolers: 1 (ambient)

Cooler Temp (including CF): 0.5+0.2 = 0.3

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 871(
Tel. 505-345-3975 Fax 505-345-4107

885-11928 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9.11.24	9:00	Soil	WS24-10 5'	4oz Jar	ICE	1	x	x					x			
9.11.24	9:30	Soil	WS24-11 3'	4oz Jar	ICE	2	x	x					x			
9.11.24	10:00	Soil	WS24-12 3'	4oz Jar	ICE	3	x	x					x			
9.11.24	10:30	Soil	WS24-14 '3	4oz Jar	ICE	4	x	x					x			
9.11.24	11:00	Soil	WS24-15 2'	4oz Jar	ICE	5	x	x					x			
9.11.24	11:30	Soil	WS24-16 5'	4oz Jar	ICE	6	x	x					x			
9.11.24	12:00	Soil	WS24-17 5'	4oz Jar	ICE	7	x	x					x			

Date	Time	Relinquished by	Received by	Via	Date	Time
9/12	7:00	Katrina Taylor			9/16/24	10:15
9/16/24	1900			courier	9/17/24	8:15

Remarks:
Direct Bill to Mack Energy,
ATTN: Matt Buckles (mattbuckles@mec.com)
CC: Sally Carttar (Scarttar@vertexresource.com) for Final Report.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-11928-1

Login Number: 11928 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/1/2024 9:28:45 AM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-11933-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
10/1/2024 9:28:45 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-11933-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 18
QC Association Summary 23
Lab Chronicle 27
Certification Summary 31
Chain of Custody 32
Receipt Checklists 33

Definitions/Glossary

Client: Vertex Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-11933-1
Project: Dawson Creek State #2

Job ID: 885-11933-1 Eurofins Albuquerque

Job Narrative
885-11933-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/17/2024 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-12615 recovered above the upper control limit for Di-n-octyl phthalate (Surr) and Diesel Range Organics [C10-C28]. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: BS24-104 (885-11933-10), BS24-105 (885-11933-11) and BS24-106 (885-11933-12).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Client Sample ID: BS24-93

Date Collected: 09/13/24 09:00
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11933-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/17/24 15:29	09/21/24 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/17/24 15:29*	*09/21/24 04:41*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 15:29	09/21/24 04:41	1
Ethylbenzene	ND		0.047		mg/Kg		09/17/24 15:29	09/21/24 04:41	1
Toluene	ND		0.047		mg/Kg		09/17/24 15:29	09/21/24 04:41	1
Xylenes, Total	ND		0.094		mg/Kg		09/17/24 15:29	09/21/24 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/17/24 15:29*	*09/21/24 04:41*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/19/24 12:39	09/19/24 18:07	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/19/24 12:39	09/19/24 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*09/19/24 12:39*	*09/19/24 18:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		60		mg/Kg		09/19/24 14:25	09/19/24 19:53	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Client Sample ID: BS24-94

Date Collected: 09/13/24 09:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11933-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/17/24 15:29	09/21/24 05:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/17/24 15:29*	*09/21/24 05:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 15:29	09/21/24 05:03	1
Ethylbenzene	ND		0.047		mg/Kg		09/17/24 15:29	09/21/24 05:03	1
Toluene	ND		0.047		mg/Kg		09/17/24 15:29	09/21/24 05:03	1
Xylenes, Total	ND		0.095		mg/Kg		09/17/24 15:29	09/21/24 05:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*09/17/24 15:29*	*09/21/24 05:03*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/19/24 12:39	09/19/24 18:18	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/19/24 12:39	09/19/24 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*09/19/24 12:39*	*09/19/24 18:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**450**		60		mg/Kg		09/19/24 14:25	09/19/24 20:31	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Client Sample ID: BS24-96
Date Collected: 09/13/24 10:00
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11933-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 15:29	09/21/24 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/17/24 15:29*	*09/21/24 05:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 15:29	09/21/24 05:25	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 15:29	09/21/24 05:25	1
Toluene	ND		0.048		mg/Kg		09/17/24 15:29	09/21/24 05:25	1
Xylenes, Total	ND		0.096		mg/Kg		09/17/24 15:29	09/21/24 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/17/24 15:29*	*09/21/24 05:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		09/19/24 12:39	09/19/24 18:29	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/19/24 12:39	09/19/24 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*09/19/24 12:39*	*09/19/24 18:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**400**		60		mg/Kg		09/19/24 14:25	09/19/24 20:44	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Client Sample ID: BS24-97

Date Collected: 09/13/24 10:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11933-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/17/24 15:29	09/21/24 05:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*35 - 166*	*09/17/24 15:29*	*09/21/24 05:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/17/24 15:29	09/21/24 05:47	1
Ethylbenzene	ND		0.050		mg/Kg		09/17/24 15:29	09/21/24 05:47	1
Toluene	ND		0.050		mg/Kg		09/17/24 15:29	09/21/24 05:47	1
Xylenes, Total	ND		0.099		mg/Kg		09/17/24 15:29	09/21/24 05:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*09/17/24 15:29*	*09/21/24 05:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/19/24 12:39	09/19/24 18:40	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/19/24 12:39	09/19/24 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*118*		*62 - 134*	*09/19/24 12:39*	*09/19/24 18:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		09/19/24 14:25	09/19/24 20:57	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Client Sample ID: BS24-98

Date Collected: 09/13/24 11:00
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11933-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/17/24 15:29	09/21/24 06:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/17/24 15:29*	*09/21/24 06:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/17/24 15:29	09/21/24 06:09	1
Ethylbenzene	ND		0.050		mg/Kg		09/17/24 15:29	09/21/24 06:09	1
Toluene	ND		0.050		mg/Kg		09/17/24 15:29	09/21/24 06:09	1
Xylenes, Total	ND		0.10		mg/Kg		09/17/24 15:29	09/21/24 06:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/17/24 15:29*	*09/21/24 06:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/19/24 12:39	09/19/24 18:52	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/19/24 12:39	09/19/24 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*09/19/24 12:39*	*09/19/24 18:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		60		mg/Kg		09/19/24 14:25	09/19/24 21:10	20

Client Sample Results

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-99
Lab Sample ID: 885-11933-6
Date Collected: 09/13/24 11:30
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/17/24 15:29	09/21/24 06:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/17/24 15:29*	*09/21/24 06:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/17/24 15:29	09/21/24 06:31	1
Ethylbenzene	ND		0.048		mg/Kg		09/17/24 15:29	09/21/24 06:31	1
Toluene	ND		0.048		mg/Kg		09/17/24 15:29	09/21/24 06:31	1
Xylenes, Total	ND		0.096		mg/Kg		09/17/24 15:29	09/21/24 06:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/17/24 15:29*	*09/21/24 06:31*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		09/19/24 12:39	09/19/24 19:14	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/19/24 12:39	09/19/24 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*09/19/24 12:39*	*09/19/24 19:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		09/19/24 14:25	09/19/24 21:49	20

Client Sample Results

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-100
Lab Sample ID: 885-11933-7
Date Collected: 09/13/24 12:00
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/18/24 09:42	09/22/24 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*09/18/24 09:42*	*09/22/24 02:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/18/24 09:42	09/22/24 02:47	1
Ethylbenzene	ND		0.050		mg/Kg		09/18/24 09:42	09/22/24 02:47	1
Toluene	ND		0.050		mg/Kg		09/18/24 09:42	09/22/24 02:47	1
Xylenes, Total	ND		0.10		mg/Kg		09/18/24 09:42	09/22/24 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*09/18/24 09:42*	*09/22/24 02:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		09/19/24 16:19	09/20/24 18:08	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		09/19/24 16:19	09/20/24 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*09/19/24 16:19*	*09/20/24 18:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**600**		60		mg/Kg		09/19/24 14:25	09/19/24 22:01	20

Client Sample Results

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-102
Lab Sample ID: 885-11933-8
Date Collected: 09/13/24 12:30
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/18/24 09:42	09/22/24 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*09/18/24 09:42*	*09/22/24 03:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/18/24 09:42	09/22/24 03:09	1
Ethylbenzene	ND		0.047		mg/Kg		09/18/24 09:42	09/22/24 03:09	1
Toluene	ND		0.047		mg/Kg		09/18/24 09:42	09/22/24 03:09	1
Xylenes, Total	ND		0.094		mg/Kg		09/18/24 09:42	09/22/24 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*09/18/24 09:42*	*09/22/24 03:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/19/24 16:19	09/20/24 18:19	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/19/24 16:19	09/20/24 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*09/19/24 16:19*	*09/20/24 18:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**280**		60		mg/Kg		09/20/24 10:10	09/20/24 13:39	20

Client Sample Results

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-103
Lab Sample ID: 885-11933-9
Date Collected: 09/13/24 13:00
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/18/24 09:42	09/22/24 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/18/24 09:42*	*09/22/24 03:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/18/24 09:42	09/22/24 03:31	1
Ethylbenzene	ND		0.047		mg/Kg		09/18/24 09:42	09/22/24 03:31	1
Toluene	ND		0.047		mg/Kg		09/18/24 09:42	09/22/24 03:31	1
Xylenes, Total	ND		0.094		mg/Kg		09/18/24 09:42	09/22/24 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/18/24 09:42*	*09/22/24 03:31*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/19/24 16:19	09/20/24 18:31	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/19/24 16:19	09/20/24 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*09/19/24 16:19*	*09/20/24 18:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/20/24 10:10	09/20/24 13:52	20

Client Sample Results

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-104
Date Collected: 09/13/24 13:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11933-10
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/18/24 09:42	09/22/24 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*35 - 166*	*09/18/24 09:42*	*09/22/24 03:53*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/18/24 09:42	09/22/24 03:53	1
Ethylbenzene	ND		0.048		mg/Kg		09/18/24 09:42	09/22/24 03:53	1
Toluene	ND		0.048		mg/Kg		09/18/24 09:42	09/22/24 03:53	1
Xylenes, Total	ND		0.096		mg/Kg		09/18/24 09:42	09/22/24 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*09/18/24 09:42*	*09/22/24 03:53*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/19/24 16:19	09/20/24 18:53	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/19/24 16:19	09/20/24 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*09/19/24 16:19*	*09/20/24 18:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85**		60		mg/Kg		09/20/24 10:10	09/20/24 14:05	20

Client Sample Results

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-105
Lab Sample ID: 885-11933-11
Date Collected: 09/13/24 14:00
Matrix: Solid
Date Received: 09/17/24 08:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/18/24 09:42	09/22/24 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/18/24 09:42*	*09/22/24 04:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/18/24 09:42	09/22/24 04:14	1
Ethylbenzene	ND		0.049		mg/Kg		09/18/24 09:42	09/22/24 04:14	1
Toluene	ND		0.049		mg/Kg		09/18/24 09:42	09/22/24 04:14	1
Xylenes, Total	ND		0.098		mg/Kg		09/18/24 09:42	09/22/24 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/18/24 09:42*	*09/22/24 04:14*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		09/19/24 16:19	09/20/24 19:05	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		09/19/24 16:19	09/20/24 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*09/19/24 16:19*	*09/20/24 19:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/20/24 10:10	09/20/24 14:18	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Client Sample ID: BS24-106

Date Collected: 09/13/24 14:30
Date Received: 09/17/24 08:15

Lab Sample ID: 885-11933-12

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/18/24 09:42	09/22/24 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/18/24 09:42*	*09/22/24 04:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/18/24 09:42	09/22/24 04:58	1
Ethylbenzene	ND		0.050		mg/Kg		09/18/24 09:42	09/22/24 04:58	1
Toluene	ND		0.050		mg/Kg		09/18/24 09:42	09/22/24 04:58	1
Xylenes, Total	ND		0.099		mg/Kg		09/18/24 09:42	09/22/24 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/18/24 09:42*	*09/22/24 04:58*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/19/24 16:19	09/20/24 19:16	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/19/24 16:19	09/20/24 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*124*		*62 - 134*	*09/19/24 16:19*	*09/20/24 19:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		09/20/24 10:10	09/20/24 14:30	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-12424/1-A
Matrix: Solid
Analysis Batch: 12732

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12424

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/17/24 15:29	09/20/24 21:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/17/24 15:29*	*09/20/24 21:26*	*1*

Lab Sample ID: LCS 885-12424/2-A
Matrix: Solid
Analysis Batch: 12732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12424

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.9		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*215*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-12458/1-A
Matrix: Solid
Analysis Batch: 12747

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12458

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/18/24 09:42	09/21/24 23:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*09/18/24 09:42*	*09/21/24 23:10*	*1*

Lab Sample ID: LCS 885-12458/2-A
Matrix: Solid
Analysis Batch: 12747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12458

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.0		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*215*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-12424/1-A
Matrix: Solid
Analysis Batch: 12845

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12424

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/17/24 15:29	09/20/24 21:26	1
Ethylbenzene	ND		0.050		mg/Kg		09/17/24 15:29	09/20/24 21:26	1
Toluene	ND		0.050		mg/Kg		09/17/24 15:29	09/20/24 21:26	1
Xylenes, Total	ND		0.10		mg/Kg		09/17/24 15:29	09/20/24 21:26	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-12424/1-A
Matrix: Solid
Analysis Batch: 12845

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12424

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145	09/17/24 15:29	09/20/24 21:26	1

Lab Sample ID: LCS 885-12424/3-A
Matrix: Solid
Analysis Batch: 12845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12424

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.992		mg/Kg		99	70 - 130
Ethylbenzene	1.00	1.01		mg/Kg		101	70 - 130
m,p-Xylene	2.00	2.03		mg/Kg		101	70 - 130
o-Xylene	1.00	1.00		mg/Kg		100	70 - 130
Toluene	1.00	1.01		mg/Kg		101	70 - 130
Xylenes, Total	3.00	3.03		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		48 - 145

Lab Sample ID: MB 885-12458/1-A
Matrix: Solid
Analysis Batch: 12755

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12458

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		09/18/24 09:42	09/21/24 23:10	1
Ethylbenzene	ND		0.050	mg/Kg		09/18/24 09:42	09/21/24 23:10	1
Toluene	ND		0.050	mg/Kg		09/18/24 09:42	09/21/24 23:10	1
Xylenes, Total	ND		0.10	mg/Kg		09/18/24 09:42	09/21/24 23:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145	09/18/24 09:42	09/21/24 23:10	1

Lab Sample ID: LCS 885-12458/3-A
Matrix: Solid
Analysis Batch: 12755

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	1.02		mg/Kg		102	70 - 130
Ethylbenzene	1.00	1.04		mg/Kg		104	70 - 130
m,p-Xylene	2.00	2.07		mg/Kg		103	70 - 130
o-Xylene	1.00	1.03		mg/Kg		103	70 - 130
Toluene	1.00	1.04		mg/Kg		104	70 - 130
Xylenes, Total	3.00	3.10		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		48 - 145

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-12561/1-A
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12561

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/19/24 12:39	09/19/24 15:12	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/19/24 12:39	09/19/24 15:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*09/19/24 12:39*	*09/19/24 15:12*	*1*

Lab Sample ID: LCS 885-12561/2-A
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12561

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	41.6		mg/Kg		83	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*

Lab Sample ID: 885-11933-6 MS
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: BS24-99
Prep Type: Total/NA
Prep Batch: 12561

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		49.1	42.7		mg/Kg		87	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*

Lab Sample ID: 885-11933-6 MSD
Matrix: Solid
Analysis Batch: 12540

Client Sample ID: BS24-99
Prep Type: Total/NA
Prep Batch: 12561

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.2	42.3		mg/Kg		90	44 - 136	1	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*

Lab Sample ID: MB 885-12591/1-A
Matrix: Solid
Analysis Batch: 12615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12591

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/19/24 16:19	09/20/24 16:51	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/19/24 16:19	09/20/24 16:51	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-12591/1-A
Matrix: Solid
Analysis Batch: 12615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12591

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*09/19/24 16:19*	*09/20/24 16:51*	*1*

Lab Sample ID: LCS 885-12591/2-A
Matrix: Solid
Analysis Batch: 12615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12591

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	56.0		mg/Kg		112	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*125*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-12581/1-A
Matrix: Solid
Analysis Batch: 12575

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12581

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		09/19/24 14:25	09/19/24 15:18	1

Lab Sample ID: LCS 885-12581/2-A
Matrix: Solid
Analysis Batch: 12575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12581

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	31.3		mg/Kg		104	90 - 110

Lab Sample ID: 885-11933-1 MS
Matrix: Solid
Analysis Batch: 12575

Client Sample ID: BS24-93
Prep Type: Total/NA
Prep Batch: 12581

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	200		30.3	224	4	mg/Kg		88	50 - 150

Lab Sample ID: 885-11933-1 MSD
Matrix: Solid
Analysis Batch: 12575

Client Sample ID: BS24-93
Prep Type: Total/NA
Prep Batch: 12581

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	200		30.0	228	4	mg/Kg		99	50 - 150	1	20

Lab Sample ID: MB 885-12620/1-A
Matrix: Solid
Analysis Batch: 12754

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12620

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		09/20/24 10:10	09/20/24 11:05	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-12620/2-A
Matrix: Solid
Analysis Batch: 12754

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	31.6		mg/Kg		105	90 - 110		

Lab Sample ID: 885-11933-12 MS
Matrix: Solid
Analysis Batch: 12754

Client Sample ID: BS24-106
Prep Type: Total/NA
Prep Batch: 12620

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		29.9	ND		mg/Kg		NC	50 - 150		

Lab Sample ID: 885-11933-12 MSD
Matrix: Solid
Analysis Batch: 12754

Client Sample ID: BS24-106
Prep Type: Total/NA
Prep Batch: 12620

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		29.9	ND		mg/Kg		NC	50 - 150	NC	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

GC VOA

Prep Batch: 12424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-1	BS24-93	Total/NA	Solid	5030C	
885-11933-2	BS24-94	Total/NA	Solid	5030C	
885-11933-3	BS24-96	Total/NA	Solid	5030C	
885-11933-4	BS24-97	Total/NA	Solid	5030C	
885-11933-5	BS24-98	Total/NA	Solid	5030C	
885-11933-6	BS24-99	Total/NA	Solid	5030C	
MB 885-12424/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12424/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12424/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 12458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-7	BS24-100	Total/NA	Solid	5030C	
885-11933-8	BS24-102	Total/NA	Solid	5030C	
885-11933-9	BS24-103	Total/NA	Solid	5030C	
885-11933-10	BS24-104	Total/NA	Solid	5030C	
885-11933-11	BS24-105	Total/NA	Solid	5030C	
885-11933-12	BS24-106	Total/NA	Solid	5030C	
MB 885-12458/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12458/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12458/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 12732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-1	BS24-93	Total/NA	Solid	8015M/D	12424
885-11933-2	BS24-94	Total/NA	Solid	8015M/D	12424
885-11933-3	BS24-96	Total/NA	Solid	8015M/D	12424
885-11933-4	BS24-97	Total/NA	Solid	8015M/D	12424
885-11933-5	BS24-98	Total/NA	Solid	8015M/D	12424
885-11933-6	BS24-99	Total/NA	Solid	8015M/D	12424
MB 885-12424/1-A	Method Blank	Total/NA	Solid	8015M/D	12424
LCS 885-12424/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12424

Analysis Batch: 12747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-7	BS24-100	Total/NA	Solid	8015M/D	12458
885-11933-8	BS24-102	Total/NA	Solid	8015M/D	12458
885-11933-9	BS24-103	Total/NA	Solid	8015M/D	12458
885-11933-10	BS24-104	Total/NA	Solid	8015M/D	12458
885-11933-11	BS24-105	Total/NA	Solid	8015M/D	12458
885-11933-12	BS24-106	Total/NA	Solid	8015M/D	12458
MB 885-12458/1-A	Method Blank	Total/NA	Solid	8015M/D	12458
LCS 885-12458/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12458

Analysis Batch: 12755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-7	BS24-100	Total/NA	Solid	8021B	12458
885-11933-8	BS24-102	Total/NA	Solid	8021B	12458
885-11933-9	BS24-103	Total/NA	Solid	8021B	12458
885-11933-10	BS24-104	Total/NA	Solid	8021B	12458
885-11933-11	BS24-105	Total/NA	Solid	8021B	12458

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

GC VOA (Continued)

Analysis Batch: 12755 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-12	BS24-106	Total/NA	Solid	8021B	12458
MB 885-12458/1-A	Method Blank	Total/NA	Solid	8021B	12458
LCS 885-12458/3-A	Lab Control Sample	Total/NA	Solid	8021B	12458

Analysis Batch: 12845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-1	BS24-93	Total/NA	Solid	8021B	12424
885-11933-2	BS24-94	Total/NA	Solid	8021B	12424
885-11933-3	BS24-96	Total/NA	Solid	8021B	12424
885-11933-4	BS24-97	Total/NA	Solid	8021B	12424
885-11933-5	BS24-98	Total/NA	Solid	8021B	12424
885-11933-6	BS24-99	Total/NA	Solid	8021B	12424
MB 885-12424/1-A	Method Blank	Total/NA	Solid	8021B	12424
LCS 885-12424/3-A	Lab Control Sample	Total/NA	Solid	8021B	12424

GC Semi VOA

Analysis Batch: 12540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-1	BS24-93	Total/NA	Solid	8015M/D	12561
885-11933-2	BS24-94	Total/NA	Solid	8015M/D	12561
885-11933-3	BS24-96	Total/NA	Solid	8015M/D	12561
885-11933-4	BS24-97	Total/NA	Solid	8015M/D	12561
885-11933-5	BS24-98	Total/NA	Solid	8015M/D	12561
885-11933-6	BS24-99	Total/NA	Solid	8015M/D	12561
MB 885-12561/1-A	Method Blank	Total/NA	Solid	8015M/D	12561
LCS 885-12561/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12561
885-11933-6 MS	BS24-99	Total/NA	Solid	8015M/D	12561
885-11933-6 MSD	BS24-99	Total/NA	Solid	8015M/D	12561

Prep Batch: 12561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-1	BS24-93	Total/NA	Solid	SHAKE	
885-11933-2	BS24-94	Total/NA	Solid	SHAKE	
885-11933-3	BS24-96	Total/NA	Solid	SHAKE	
885-11933-4	BS24-97	Total/NA	Solid	SHAKE	
885-11933-5	BS24-98	Total/NA	Solid	SHAKE	
885-11933-6	BS24-99	Total/NA	Solid	SHAKE	
MB 885-12561/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12561/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-11933-6 MS	BS24-99	Total/NA	Solid	SHAKE	
885-11933-6 MSD	BS24-99	Total/NA	Solid	SHAKE	

Prep Batch: 12591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-7	BS24-100	Total/NA	Solid	SHAKE	
885-11933-8	BS24-102	Total/NA	Solid	SHAKE	
885-11933-9	BS24-103	Total/NA	Solid	SHAKE	
885-11933-10	BS24-104	Total/NA	Solid	SHAKE	
885-11933-11	BS24-105	Total/NA	Solid	SHAKE	
885-11933-12	BS24-106	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-11933-1

GC Semi VOA (Continued)

Prep Batch: 12591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-12591/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12591/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 12615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-7	BS24-100	Total/NA	Solid	8015M/D	12591
885-11933-8	BS24-102	Total/NA	Solid	8015M/D	12591
885-11933-9	BS24-103	Total/NA	Solid	8015M/D	12591
885-11933-10	BS24-104	Total/NA	Solid	8015M/D	12591
885-11933-11	BS24-105	Total/NA	Solid	8015M/D	12591
885-11933-12	BS24-106	Total/NA	Solid	8015M/D	12591
MB 885-12591/1-A	Method Blank	Total/NA	Solid	8015M/D	12591
LCS 885-12591/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12591

HPLC/IC

Analysis Batch: 12575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-1	BS24-93	Total/NA	Solid	300.0	12581
885-11933-2	BS24-94	Total/NA	Solid	300.0	12581
885-11933-3	BS24-96	Total/NA	Solid	300.0	12581
885-11933-4	BS24-97	Total/NA	Solid	300.0	12581
885-11933-5	BS24-98	Total/NA	Solid	300.0	12581
885-11933-6	BS24-99	Total/NA	Solid	300.0	12581
885-11933-7	BS24-100	Total/NA	Solid	300.0	12581
MB 885-12581/1-A	Method Blank	Total/NA	Solid	300.0	12581
LCS 885-12581/2-A	Lab Control Sample	Total/NA	Solid	300.0	12581
885-11933-1 MS	BS24-93	Total/NA	Solid	300.0	12581
885-11933-1 MSD	BS24-93	Total/NA	Solid	300.0	12581

Prep Batch: 12581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-1	BS24-93	Total/NA	Solid	300_Prep	
885-11933-2	BS24-94	Total/NA	Solid	300_Prep	
885-11933-3	BS24-96	Total/NA	Solid	300_Prep	
885-11933-4	BS24-97	Total/NA	Solid	300_Prep	
885-11933-5	BS24-98	Total/NA	Solid	300_Prep	
885-11933-6	BS24-99	Total/NA	Solid	300_Prep	
885-11933-7	BS24-100	Total/NA	Solid	300_Prep	
MB 885-12581/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12581/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-11933-1 MS	BS24-93	Total/NA	Solid	300_Prep	
885-11933-1 MSD	BS24-93	Total/NA	Solid	300_Prep	

Prep Batch: 12620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-8	BS24-102	Total/NA	Solid	300_Prep	
885-11933-9	BS24-103	Total/NA	Solid	300_Prep	
885-11933-10	BS24-104	Total/NA	Solid	300_Prep	
885-11933-11	BS24-105	Total/NA	Solid	300_Prep	
885-11933-12	BS24-106	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

HPLC/IC (Continued)

Prep Batch: 12620 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-12620/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12620/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-11933-12 MS	BS24-106	Total/NA	Solid	300_Prep	
885-11933-12 MSD	BS24-106	Total/NA	Solid	300_Prep	

Analysis Batch: 12754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11933-8	BS24-102	Total/NA	Solid	300.0	12620
885-11933-9	BS24-103	Total/NA	Solid	300.0	12620
885-11933-10	BS24-104	Total/NA	Solid	300.0	12620
885-11933-11	BS24-105	Total/NA	Solid	300.0	12620
885-11933-12	BS24-106	Total/NA	Solid	300.0	12620
MB 885-12620/1-A	Method Blank	Total/NA	Solid	300.0	12620
LCS 885-12620/2-A	Lab Control Sample	Total/NA	Solid	300.0	12620
885-11933-12 MS	BS24-106	Total/NA	Solid	300.0	12620
885-11933-12 MSD	BS24-106	Total/NA	Solid	300.0	12620

Lab Chronicle

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-93
Lab Sample ID: 885-11933-1
Date Collected: 09/13/24 09:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8015M/D		1	12732	AT	EET ALB	09/21/24 04:41
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8021B		1	12845	AT	EET ALB	09/21/24 04:41
Total/NA	Prep	SHAKE			12561	EM	EET ALB	09/19/24 12:39
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 18:07
Total/NA	Prep	300_Prep			12581	MA	EET ALB	09/19/24 14:25
Total/NA	Analysis	300.0		20	12575	JT	EET ALB	09/19/24 19:53

Client Sample ID: BS24-94
Lab Sample ID: 885-11933-2
Date Collected: 09/13/24 09:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8015M/D		1	12732	AT	EET ALB	09/21/24 05:03
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8021B		1	12845	AT	EET ALB	09/21/24 05:03
Total/NA	Prep	SHAKE			12561	EM	EET ALB	09/19/24 12:39
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 18:18
Total/NA	Prep	300_Prep			12581	MA	EET ALB	09/19/24 14:25
Total/NA	Analysis	300.0		20	12575	JT	EET ALB	09/19/24 20:31

Client Sample ID: BS24-96
Lab Sample ID: 885-11933-3
Date Collected: 09/13/24 10:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8015M/D		1	12732	AT	EET ALB	09/21/24 05:25
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8021B		1	12845	AT	EET ALB	09/21/24 05:25
Total/NA	Prep	SHAKE			12561	EM	EET ALB	09/19/24 12:39
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 18:29
Total/NA	Prep	300_Prep			12581	MA	EET ALB	09/19/24 14:25
Total/NA	Analysis	300.0		20	12575	JT	EET ALB	09/19/24 20:44

Client Sample ID: BS24-97
Lab Sample ID: 885-11933-4
Date Collected: 09/13/24 10:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8015M/D		1	12732	AT	EET ALB	09/21/24 05:47

Lab Chronicle

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-97
Lab Sample ID: 885-11933-4
Date Collected: 09/13/24 10:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8021B		1	12845	AT	EET ALB	09/21/24 05:47
Total/NA	Prep	SHAKE			12561	EM	EET ALB	09/19/24 12:39
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 18:40
Total/NA	Prep	300_Prep			12581	MA	EET ALB	09/19/24 14:25
Total/NA	Analysis	300.0		20	12575	JT	EET ALB	09/19/24 20:57

Client Sample ID: BS24-98
Lab Sample ID: 885-11933-5
Date Collected: 09/13/24 11:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8015M/D		1	12732	AT	EET ALB	09/21/24 06:09
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8021B		1	12845	AT	EET ALB	09/21/24 06:09
Total/NA	Prep	SHAKE			12561	EM	EET ALB	09/19/24 12:39
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 18:52
Total/NA	Prep	300_Prep			12581	MA	EET ALB	09/19/24 14:25
Total/NA	Analysis	300.0		20	12575	JT	EET ALB	09/19/24 21:10

Client Sample ID: BS24-99
Lab Sample ID: 885-11933-6
Date Collected: 09/13/24 11:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8015M/D		1	12732	AT	EET ALB	09/21/24 06:31
Total/NA	Prep	5030C			12424	AT	EET ALB	09/17/24 15:29
Total/NA	Analysis	8021B		1	12845	AT	EET ALB	09/21/24 06:31
Total/NA	Prep	SHAKE			12561	EM	EET ALB	09/19/24 12:39
Total/NA	Analysis	8015M/D		1	12540	EM	EET ALB	09/19/24 19:14
Total/NA	Prep	300_Prep			12581	MA	EET ALB	09/19/24 14:25
Total/NA	Analysis	300.0		20	12575	JT	EET ALB	09/19/24 21:49

Client Sample ID: BS24-100
Lab Sample ID: 885-11933-7
Date Collected: 09/13/24 12:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8015M/D		1	12747	AT	EET ALB	09/22/24 02:47
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8021B		1	12755	AT	EET ALB	09/22/24 02:47

Lab Chronicle

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-100
Lab Sample ID: 885-11933-7
Date Collected: 09/13/24 12:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12591	EM	EET ALB	09/19/24 16:19
Total/NA	Analysis	8015M/D		1	12615	EM	EET ALB	09/20/24 18:08
Total/NA	Prep	300_Prep			12581	MA	EET ALB	09/19/24 14:25
Total/NA	Analysis	300.0		20	12575	JT	EET ALB	09/19/24 22:01

Client Sample ID: BS24-102
Lab Sample ID: 885-11933-8
Date Collected: 09/13/24 12:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8015M/D		1	12747	AT	EET ALB	09/22/24 03:09
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8021B		1	12755	AT	EET ALB	09/22/24 03:09
Total/NA	Prep	SHAKE			12591	EM	EET ALB	09/19/24 16:19
Total/NA	Analysis	8015M/D		1	12615	EM	EET ALB	09/20/24 18:19
Total/NA	Prep	300_Prep			12620	EH	EET ALB	09/20/24 10:10
Total/NA	Analysis	300.0		20	12754	EH	EET ALB	09/20/24 13:39

Client Sample ID: BS24-103
Lab Sample ID: 885-11933-9
Date Collected: 09/13/24 13:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8015M/D		1	12747	AT	EET ALB	09/22/24 03:31
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8021B		1	12755	AT	EET ALB	09/22/24 03:31
Total/NA	Prep	SHAKE			12591	EM	EET ALB	09/19/24 16:19
Total/NA	Analysis	8015M/D		1	12615	EM	EET ALB	09/20/24 18:31
Total/NA	Prep	300_Prep			12620	EH	EET ALB	09/20/24 10:10
Total/NA	Analysis	300.0		20	12754	EH	EET ALB	09/20/24 13:52

Client Sample ID: BS24-104
Lab Sample ID: 885-11933-10
Date Collected: 09/13/24 13:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8015M/D		1	12747	AT	EET ALB	09/22/24 03:53
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8021B		1	12755	AT	EET ALB	09/22/24 03:53
Total/NA	Prep	SHAKE			12591	EM	EET ALB	09/19/24 16:19
Total/NA	Analysis	8015M/D		1	12615	EM	EET ALB	09/20/24 18:53

Lab Chronicle

Client: Vertex
Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-104
Lab Sample ID: 885-11933-10
Date Collected: 09/13/24 13:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			12620	EH	EET ALB	09/20/24 10:10
Total/NA	Analysis	300.0		20	12754	EH	EET ALB	09/20/24 14:05

Client Sample ID: BS24-105
Lab Sample ID: 885-11933-11
Date Collected: 09/13/24 14:00
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8015M/D		1	12747	AT	EET ALB	09/22/24 04:14
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8021B		1	12755	AT	EET ALB	09/22/24 04:14
Total/NA	Prep	SHAKE			12591	EM	EET ALB	09/19/24 16:19
Total/NA	Analysis	8015M/D		1	12615	EM	EET ALB	09/20/24 19:05
Total/NA	Prep	300_Prep			12620	EH	EET ALB	09/20/24 10:10
Total/NA	Analysis	300.0		20	12754	EH	EET ALB	09/20/24 14:18

Client Sample ID: BS24-106
Lab Sample ID: 885-11933-12
Date Collected: 09/13/24 14:30
Matrix: Solid
Date Received: 09/17/24 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8015M/D		1	12747	AT	EET ALB	09/22/24 04:58
Total/NA	Prep	5030C			12458	AT	EET ALB	09/18/24 09:42
Total/NA	Analysis	8021B		1	12755	AT	EET ALB	09/22/24 04:58
Total/NA	Prep	SHAKE			12591	EM	EET ALB	09/19/24 16:19
Total/NA	Analysis	8015M/D		1	12615	EM	EET ALB	09/20/24 19:16
Total/NA	Prep	300_Prep			12620	EH	EET ALB	09/20/24 10:10
Total/NA	Analysis	300.0		20	12754	EH	EET ALB	09/20/24 14:30

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-11933-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

HALL ENVIRONMI ANALYSIS LABOR

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

885-11933 COC

Client: Vertex (bill to mae)

Mailing Address: 3101 boyd Dr Carlsbad, NM, 88220

Phone #: 575,725-5001

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush 5 Day

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar SCarttar@Vertexresource.com

Sampler: Kat Taylor

On Ice: ☒ Yes ☐ No

# of Coolers: 1 (Chucky)

Cooler Temp(including CF): 0.5-0.2=0.3 (°C)

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9/13/24	9:00	Soil	BS24-93	4 oz jar	Ice	1	X	X					X			
	9:30		BS24-94			2										
	10:00		BS24-96			3										
	10:30		BS24-97			4										
	11:00		BS24-98			5										
	11:30		BS24-99			6										
	12:00		BS24-100			7										
	12:30		BS24-102			8										
	13:00		BS24-103			9										
	15:30		BS24-104			10										
	14:00		BS24-105			11										
	14:30		BS24-106			12										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/13	6pm	Kat Taylor			9/16/24	1015
9/16/24	1900			courier	9/17/24	8:15

Remarks:

Direct bill to Mack Energy

ATTN: Matt Buckles (Mattbuckles@Mec.com)

CC: Sally Carttar (SCarttar@Vertexresource.com)

Received by OCD: 12/11/2024 12:00:41 AM

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-11933-1

Login Number: 11933 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/9/2024 3:04:28 PM Revision 1

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-12901-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
10/9/2024 3:04:28 PM
Revision 1

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-12901-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 25
QC Association Summary 29
Lab Chronicle 33
Certification Summary 39
Chain of Custody 40
Receipt Checklists 42

Definitions/Glossary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex
Project: Dawson Creek State #2

Job ID: 885-12901-1

Job ID: 885-12901-1 Eurofins Albuquerque

Job Narrative
885-12901-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/1/2024 8:26 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C.

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

The following samples were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): BS24-77 6' (885-12901-19)

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-107 3'
Date Collected: 09/26/24 09:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/01/24 12:39	10/02/24 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*10/01/24 12:39*	*10/02/24 15:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 15:51	1
Ethylbenzene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 15:51	1
Toluene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 15:51	1
Xylenes, Total	ND		0.099		mg/Kg		10/01/24 12:39	10/02/24 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*10/01/24 12:39*	*10/02/24 15:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/02/24 11:47	10/02/24 13:49	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/02/24 11:47	10/02/24 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*10/02/24 11:47*	*10/02/24 13:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61**		60		mg/Kg		10/02/24 15:25	10/02/24 16:35	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-108 3'
Date Collected: 09/26/24 09:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/01/24 12:39	10/02/24 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*10/01/24 12:39*	*10/02/24 16:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/01/24 12:39	10/02/24 16:56	1
Ethylbenzene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 16:56	1
Toluene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 16:56	1
Xylenes, Total	ND		0.094		mg/Kg		10/01/24 12:39	10/02/24 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*10/01/24 12:39*	*10/02/24 16:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		10/02/24 11:47	10/02/24 13:59	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/02/24 11:47	10/02/24 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*10/02/24 11:47*	*10/02/24 13:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/02/24 15:25	10/02/24 17:39	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-109 3'
Date Collected: 09/26/24 10:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/01/24 12:39	10/02/24 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/01/24 12:39*	*10/02/24 18:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/01/24 12:39	10/02/24 18:01	1
Ethylbenzene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 18:01	1
Toluene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 18:01	1
Xylenes, Total	ND		0.094		mg/Kg		10/01/24 12:39	10/02/24 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/01/24 12:39*	*10/02/24 18:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/02/24 11:47	10/02/24 14:10	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/02/24 11:47	10/02/24 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*10/02/24 11:47*	*10/02/24 14:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		10/02/24 15:25	10/02/24 17:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-110 3'
Date Collected: 09/26/24 10:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-4
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/01/24 12:39	10/02/24 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/01/24 12:39*	*10/02/24 18:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/01/24 12:39	10/02/24 18:23	1
Ethylbenzene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 18:23	1
Toluene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 18:23	1
Xylenes, Total	ND		0.093		mg/Kg		10/01/24 12:39	10/02/24 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/01/24 12:39*	*10/02/24 18:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/02/24 11:47	10/02/24 14:21	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/02/24 11:47	10/02/24 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*10/02/24 11:47*	*10/02/24 14:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74**		60		mg/Kg		10/02/24 15:25	10/02/24 18:05	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-111 3'
Date Collected: 09/26/24 11:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-5
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/01/24 12:39	10/02/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/01/24 12:39*	*10/02/24 18:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/01/24 12:39	10/02/24 18:45	1
Ethylbenzene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 18:45	1
Toluene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 18:45	1
Xylenes, Total	ND		0.094		mg/Kg		10/01/24 12:39	10/02/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/01/24 12:39*	*10/02/24 18:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/02/24 11:47	10/02/24 14:31	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/02/24 11:47	10/02/24 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/02/24 11:47*	*10/02/24 14:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/02/24 15:25	10/02/24 18:17	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-112 3'
Date Collected: 09/26/24 11:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-6
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/01/24 12:39	10/02/24 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*10/01/24 12:39*	*10/02/24 19:07*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 19:07	1
Ethylbenzene	ND		0.049		mg/Kg		10/01/24 12:39	10/02/24 19:07	1
Toluene	ND		0.049		mg/Kg		10/01/24 12:39	10/02/24 19:07	1
Xylenes, Total	ND		0.098		mg/Kg		10/01/24 12:39	10/02/24 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/01/24 12:39*	*10/02/24 19:07*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/02/24 11:47	10/02/24 14:42	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/02/24 11:47	10/02/24 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*10/02/24 11:47*	*10/02/24 14:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/02/24 15:25	10/02/24 18:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-113 3'
Date Collected: 09/26/24 12:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-7
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/01/24 12:39	10/02/24 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/01/24 12:39*	*10/02/24 19:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/01/24 12:39	10/02/24 19:28	1
Ethylbenzene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 19:28	1
Toluene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 19:28	1
Xylenes, Total	ND		0.096		mg/Kg		10/01/24 12:39	10/02/24 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/01/24 12:39*	*10/02/24 19:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		10/02/24 11:47	10/02/24 14:53	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/02/24 11:47	10/02/24 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/02/24 11:47*	*10/02/24 14:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68**		60		mg/Kg		10/02/24 15:25	10/02/24 18:43	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-114 3'
Date Collected: 09/26/24 12:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-8
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/01/24 12:39	10/02/24 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*10/01/24 12:39*	*10/02/24 19:50*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/01/24 12:39	10/02/24 19:50	1
Ethylbenzene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 19:50	1
Toluene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 19:50	1
Xylenes, Total	ND		0.097		mg/Kg		10/01/24 12:39	10/02/24 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/01/24 12:39*	*10/02/24 19:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/02/24 11:47	10/02/24 15:03	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/02/24 11:47	10/02/24 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*10/02/24 11:47*	*10/02/24 15:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/02/24 15:25	10/02/24 18:56	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-115 3'
Date Collected: 09/26/24 13:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-9
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/01/24 12:39	10/02/24 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*10/01/24 12:39*	*10/02/24 20:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/01/24 12:39	10/02/24 20:12	1
Ethylbenzene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 20:12	1
Toluene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 20:12	1
Xylenes, Total	ND		0.093		mg/Kg		10/01/24 12:39	10/02/24 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/01/24 12:39*	*10/02/24 20:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/02/24 11:47	10/02/24 15:25	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/02/24 11:47	10/02/24 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*10/02/24 11:47*	*10/02/24 15:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**300**		60		mg/Kg		10/02/24 15:25	10/02/24 19:09	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-116 2'
Date Collected: 09/26/24 13:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-10
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/01/24 12:39	10/02/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/01/24 12:39*	*10/02/24 20:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/01/24 12:39	10/02/24 20:34	1
Ethylbenzene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 20:34	1
Toluene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 20:34	1
Xylenes, Total	ND		0.096		mg/Kg		10/01/24 12:39	10/02/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/01/24 12:39*	*10/02/24 20:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/02/24 11:47	10/02/24 15:36	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/02/24 11:47	10/02/24 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*10/02/24 11:47*	*10/02/24 15:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90**		60		mg/Kg		10/02/24 15:25	10/02/24 19:22	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-117 4'
Date Collected: 09/26/24 14:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-11
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/01/24 12:39	10/02/24 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*10/01/24 12:39*	*10/02/24 21:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 21:17	1
Ethylbenzene	ND		0.049		mg/Kg		10/01/24 12:39	10/02/24 21:17	1
Toluene	ND		0.049		mg/Kg		10/01/24 12:39	10/02/24 21:17	1
Xylenes, Total	ND		0.099		mg/Kg		10/01/24 12:39	10/02/24 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/01/24 12:39*	*10/02/24 21:17*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/02/24 11:47	10/02/24 15:47	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/02/24 11:47	10/02/24 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*10/02/24 11:47*	*10/02/24 15:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		10/02/24 15:25	10/02/24 20:00	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: WS24-16 0-3'
Date Collected: 09/27/24 09:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-12
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/01/24 12:39	10/02/24 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*10/01/24 12:39*	*10/02/24 21:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 21:39	1
Ethylbenzene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 21:39	1
Toluene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 21:39	1
Xylenes, Total	ND		0.099		mg/Kg		10/01/24 12:39	10/02/24 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/01/24 12:39*	*10/02/24 21:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/02/24 11:47	10/02/24 15:57	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/02/24 11:47	10/02/24 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*10/02/24 11:47*	*10/02/24 15:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		59		mg/Kg		10/02/24 15:25	10/02/24 20:39	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: WS24-18 0-3'
Date Collected: 09/27/24 10:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-13
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/01/24 12:39	10/02/24 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*10/01/24 12:39*	*10/02/24 22:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 22:00	1
Ethylbenzene	ND		0.049		mg/Kg		10/01/24 12:39	10/02/24 22:00	1
Toluene	ND		0.049		mg/Kg		10/01/24 12:39	10/02/24 22:00	1
Xylenes, Total	ND		0.099		mg/Kg		10/01/24 12:39	10/02/24 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/01/24 12:39*	*10/02/24 22:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		10/02/24 11:47	10/02/24 16:08	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		10/02/24 11:47	10/02/24 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*10/02/24 11:47*	*10/02/24 16:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**93**		60		mg/Kg		10/02/24 15:25	10/02/24 20:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: WS24-19 0-3'
Date Collected: 09/27/24 10:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-14
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		10/01/24 12:39	10/02/24 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*10/01/24 12:39*	*10/02/24 22:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/01/24 12:39	10/02/24 22:22	1
Ethylbenzene	ND		0.046		mg/Kg		10/01/24 12:39	10/02/24 22:22	1
Toluene	ND		0.046		mg/Kg		10/01/24 12:39	10/02/24 22:22	1
Xylenes, Total	ND		0.092		mg/Kg		10/01/24 12:39	10/02/24 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/01/24 12:39*	*10/02/24 22:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		10/02/24 11:47	10/02/24 16:19	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/02/24 11:47	10/02/24 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/02/24 11:47*	*10/02/24 16:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/02/24 15:25	10/02/24 21:05	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: WS24-21 0-3'
Date Collected: 09/27/24 11:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-15
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/01/24 12:39	10/02/24 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*10/01/24 12:39*	*10/02/24 22:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 22:44	1
Ethylbenzene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 22:44	1
Toluene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 22:44	1
Xylenes, Total	ND		0.10		mg/Kg		10/01/24 12:39	10/02/24 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/01/24 12:39*	*10/02/24 22:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		10/02/24 11:47	10/02/24 16:30	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/02/24 11:47	10/02/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/02/24 11:47*	*10/02/24 16:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		10/02/24 15:25	10/02/24 21:18	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: WS24-06 0-4'
Date Collected: 09/27/24 12:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-16
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/01/24 12:39	10/02/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*10/01/24 12:39*	*10/02/24 23:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/01/24 12:39	10/02/24 23:05	1
Ethylbenzene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 23:05	1
Toluene	ND		0.048		mg/Kg		10/01/24 12:39	10/02/24 23:05	1
Xylenes, Total	ND		0.096		mg/Kg		10/01/24 12:39	10/02/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/01/24 12:39*	*10/02/24 23:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/02/24 11:47	10/02/24 16:41	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/02/24 11:47	10/02/24 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*10/02/24 11:47*	*10/02/24 16:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		60		mg/Kg		10/02/24 15:25	10/02/24 21:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-78 4'
Date Collected: 09/27/24 12:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-17
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/01/24 12:39	10/02/24 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*10/01/24 12:39*	*10/02/24 23:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 23:27	1
Ethylbenzene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 23:27	1
Toluene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 23:27	1
Xylenes, Total	ND		0.10		mg/Kg		10/01/24 12:39	10/02/24 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/01/24 12:39*	*10/02/24 23:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/02/24 11:47	10/02/24 16:52	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/02/24 11:47	10/02/24 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*10/02/24 11:47*	*10/02/24 16:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/02/24 15:25	10/02/24 21:43	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-79 4'
Date Collected: 09/27/24 13:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-18
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/01/24 12:39	10/02/24 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*10/01/24 12:39*	*10/02/24 23:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/01/24 12:39	10/02/24 23:49	1
Ethylbenzene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 23:49	1
Toluene	ND		0.047		mg/Kg		10/01/24 12:39	10/02/24 23:49	1
Xylenes, Total	ND		0.095		mg/Kg		10/01/24 12:39	10/02/24 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/01/24 12:39*	*10/02/24 23:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		10/02/24 11:47	10/02/24 17:03	1
Motor Oil Range Organics [C28-C40]	**57**		45		mg/Kg		10/02/24 11:47	10/02/24 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*10/02/24 11:47*	*10/02/24 17:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**140**		60		mg/Kg		10/02/24 15:25	10/02/24 21:56	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-77 6'
Date Collected: 09/27/24 13:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-19
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/01/24 12:39	10/03/24 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*35 - 166*	*10/01/24 12:39*	*10/03/24 00:11*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/01/24 12:39	10/03/24 00:11	1
Ethylbenzene	ND		0.047		mg/Kg		10/01/24 12:39	10/03/24 00:11	1
Toluene	ND		0.047		mg/Kg		10/01/24 12:39	10/03/24 00:11	1
Xylenes, Total	ND		0.093		mg/Kg		10/01/24 12:39	10/03/24 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/01/24 12:39*	*10/03/24 00:11*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/02/24 11:47	10/02/24 17:24	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/02/24 11:47	10/02/24 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/02/24 11:47*	*10/02/24 17:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/02/24 15:25	10/02/24 22:35	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-13380/1-A
Matrix: Solid
Analysis Batch: 13565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13380

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/01/24 12:39	10/02/24 15:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*10/01/24 12:39*	*10/02/24 15:29*	*1*

Lab Sample ID: LCS 885-13380/2-A
Matrix: Solid
Analysis Batch: 13565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13380

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.6		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*216*		*35 - 166*

Lab Sample ID: 885-12901-1 MS
Matrix: Solid
Analysis Batch: 13565

Client Sample ID: BS24-107 3'
Prep Type: Total/NA
Prep Batch: 13380

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.8	27.1		mg/Kg		109	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*220*		*35 - 166*

Lab Sample ID: 885-12901-1 MSD
Matrix: Solid
Analysis Batch: 13565

Client Sample ID: BS24-107 3'
Prep Type: Total/NA
Prep Batch: 13380

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.7	26.2		mg/Kg		106	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*213*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-13380/1-A
Matrix: Solid
Analysis Batch: 13567

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13380

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/01/24 12:39	10/02/24 15:29	1
Ethylbenzene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 15:29	1
Toluene	ND		0.050		mg/Kg		10/01/24 12:39	10/02/24 15:29	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-13380/1-A
Matrix: Solid
Analysis Batch: 13567

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13380

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		10/01/24 12:39	10/02/24 15:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/01/24 12:39*	*10/02/24 15:29*	*1*

Lab Sample ID: LCS 885-13380/3-A
Matrix: Solid
Analysis Batch: 13567

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13380

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.10		mg/Kg		110	70 - 130		
Ethylbenzene			1.00	1.09		mg/Kg		109	70 - 130		
m,p-Xylene			2.00	2.16		mg/Kg		108	70 - 130		
o-Xylene			1.00	1.07		mg/Kg		107	70 - 130		
Toluene			1.00	1.09		mg/Kg		109	70 - 130		
Xylenes, Total			3.00	3.23		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-12901-2 MS
Matrix: Solid
Analysis Batch: 13567

Client Sample ID: BS24-108 3'
Prep Type: Total/NA
Prep Batch: 13380

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.939	1.07		mg/Kg		114	70 - 130		
Ethylbenzene	ND		0.939	1.07		mg/Kg		114	70 - 130		
m,p-Xylene	ND		1.88	2.11		mg/Kg		112	70 - 130		
o-Xylene	ND		0.939	1.06		mg/Kg		113	70 - 130		
Toluene	ND		0.939	1.08		mg/Kg		115	70 - 130		
Xylenes, Total	ND		2.82	3.17		mg/Kg		113	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*

Lab Sample ID: 885-12901-2 MSD
Matrix: Solid
Analysis Batch: 13567

Client Sample ID: BS24-108 3'
Prep Type: Total/NA
Prep Batch: 13380

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.942	1.05		mg/Kg		112	70 - 130	1	20
Ethylbenzene	ND		0.942	1.07		mg/Kg		114	70 - 130	0	20
m,p-Xylene	ND		1.88	2.13		mg/Kg		113	70 - 130	1	20
o-Xylene	ND		0.942	1.06		mg/Kg		112	70 - 130	0	20
Toluene	ND		0.942	1.07		mg/Kg		113	70 - 130	1	20
Xylenes, Total	ND		2.82	3.18		mg/Kg		113	70 - 130	0	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-12901-2 MSD
Matrix: Solid
Analysis Batch: 13567

Client Sample ID: BS24-108 3'
Prep Type: Total/NA
Prep Batch: 13380

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-13506/1-B
Matrix: Solid
Analysis Batch: 13490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13506

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/02/24 11:47	10/02/24 13:27	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/02/24 11:47	10/02/24 13:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*10/02/24 11:47*	*10/02/24 13:27*	*1*

Lab Sample ID: LCS 885-13506/2-B
Matrix: Solid
Analysis Batch: 13490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13506

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	49.9		mg/Kg		100	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-13536/1-A
Matrix: Solid
Analysis Batch: 13517

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13536

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/02/24 15:25	10/02/24 16:09	1

Lab Sample ID: LCS 885-13536/2-A
Matrix: Solid
Analysis Batch: 13517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13536

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	32.7		mg/Kg		109	90 - 110		

Lab Sample ID: 885-12901-1 MS
Matrix: Solid
Analysis Batch: 13517

Client Sample ID: BS24-107 3'
Prep Type: Total/NA
Prep Batch: 13536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	61		29.9	90.5		mg/Kg		97	50 - 150		

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-12901-1 MSD
Matrix: Solid
Analysis Batch: 13517

Client Sample ID: BS24-107 3'
Prep Type: Total/NA
Prep Batch: 13536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	61		30.3	91.3		mg/Kg		98	50 - 150	1	20

Lab Sample ID: 885-12901-11 MS
Matrix: Solid
Analysis Batch: 13517

Client Sample ID: BS24-117 4'
Prep Type: Total/NA
Prep Batch: 13536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	180		30.1	220	4	mg/Kg		124	50 - 150

Lab Sample ID: 885-12901-11 MSD
Matrix: Solid
Analysis Batch: 13517

Client Sample ID: BS24-117 4'
Prep Type: Total/NA
Prep Batch: 13536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	180		29.7	218	4	mg/Kg		120	50 - 150	1	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

GC VOA

Prep Batch: 13380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1	BS24-107 3'	Total/NA	Solid	5030C	
885-12901-2	BS24-108 3'	Total/NA	Solid	5030C	
885-12901-3	BS24-109 3'	Total/NA	Solid	5030C	
885-12901-4	BS24-110 3'	Total/NA	Solid	5030C	
885-12901-5	BS24-111 3'	Total/NA	Solid	5030C	
885-12901-6	BS24-112 3'	Total/NA	Solid	5030C	
885-12901-7	BS24-113 3'	Total/NA	Solid	5030C	
885-12901-8	BS24-114 3'	Total/NA	Solid	5030C	
885-12901-9	BS24-115 3'	Total/NA	Solid	5030C	
885-12901-10	BS24-116 2'	Total/NA	Solid	5030C	
885-12901-11	BS24-117 4'	Total/NA	Solid	5030C	
885-12901-12	WS24-16 0-3'	Total/NA	Solid	5030C	
885-12901-13	WS24-18 0-3'	Total/NA	Solid	5030C	
885-12901-14	WS24-19 0-3'	Total/NA	Solid	5030C	
885-12901-15	WS24-21 0-3'	Total/NA	Solid	5030C	
885-12901-16	WS24-06 0-4'	Total/NA	Solid	5030C	
885-12901-17	BS24-78 4'	Total/NA	Solid	5030C	
885-12901-18	BS24-79 4'	Total/NA	Solid	5030C	
885-12901-19	BS24-77 6'	Total/NA	Solid	5030C	
MB 885-13380/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-13380/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-13380/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-12901-1 MS	BS24-107 3'	Total/NA	Solid	5030C	
885-12901-1 MSD	BS24-107 3'	Total/NA	Solid	5030C	
885-12901-2 MS	BS24-108 3'	Total/NA	Solid	5030C	
885-12901-2 MSD	BS24-108 3'	Total/NA	Solid	5030C	

Analysis Batch: 13565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1	BS24-107 3'	Total/NA	Solid	8015M/D	13380
885-12901-2	BS24-108 3'	Total/NA	Solid	8015M/D	13380
885-12901-3	BS24-109 3'	Total/NA	Solid	8015M/D	13380
885-12901-4	BS24-110 3'	Total/NA	Solid	8015M/D	13380
885-12901-5	BS24-111 3'	Total/NA	Solid	8015M/D	13380
885-12901-6	BS24-112 3'	Total/NA	Solid	8015M/D	13380
885-12901-7	BS24-113 3'	Total/NA	Solid	8015M/D	13380
885-12901-8	BS24-114 3'	Total/NA	Solid	8015M/D	13380
885-12901-9	BS24-115 3'	Total/NA	Solid	8015M/D	13380
885-12901-10	BS24-116 2'	Total/NA	Solid	8015M/D	13380
885-12901-11	BS24-117 4'	Total/NA	Solid	8015M/D	13380
885-12901-12	WS24-16 0-3'	Total/NA	Solid	8015M/D	13380
885-12901-13	WS24-18 0-3'	Total/NA	Solid	8015M/D	13380
885-12901-14	WS24-19 0-3'	Total/NA	Solid	8015M/D	13380
885-12901-15	WS24-21 0-3'	Total/NA	Solid	8015M/D	13380
885-12901-16	WS24-06 0-4'	Total/NA	Solid	8015M/D	13380
885-12901-17	BS24-78 4'	Total/NA	Solid	8015M/D	13380
885-12901-18	BS24-79 4'	Total/NA	Solid	8015M/D	13380
885-12901-19	BS24-77 6'	Total/NA	Solid	8015M/D	13380
MB 885-13380/1-A	Method Blank	Total/NA	Solid	8015M/D	13380
LCS 885-13380/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13380
885-12901-1 MS	BS24-107 3'	Total/NA	Solid	8015M/D	13380

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

GC VOA (Continued)

Analysis Batch: 13565 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1 MSD	BS24-107 3'	Total/NA	Solid	8015M/D	13380

Analysis Batch: 13567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1	BS24-107 3'	Total/NA	Solid	8021B	13380
885-12901-2	BS24-108 3'	Total/NA	Solid	8021B	13380
885-12901-3	BS24-109 3'	Total/NA	Solid	8021B	13380
885-12901-4	BS24-110 3'	Total/NA	Solid	8021B	13380
885-12901-5	BS24-111 3'	Total/NA	Solid	8021B	13380
885-12901-6	BS24-112 3'	Total/NA	Solid	8021B	13380
885-12901-7	BS24-113 3'	Total/NA	Solid	8021B	13380
885-12901-8	BS24-114 3'	Total/NA	Solid	8021B	13380
885-12901-9	BS24-115 3'	Total/NA	Solid	8021B	13380
885-12901-10	BS24-116 2'	Total/NA	Solid	8021B	13380
885-12901-11	BS24-117 4'	Total/NA	Solid	8021B	13380
885-12901-12	WS24-16 0-3'	Total/NA	Solid	8021B	13380
885-12901-13	WS24-18 0-3'	Total/NA	Solid	8021B	13380
885-12901-14	WS24-19 0-3'	Total/NA	Solid	8021B	13380
885-12901-15	WS24-21 0-3'	Total/NA	Solid	8021B	13380
885-12901-16	WS24-06 0-4'	Total/NA	Solid	8021B	13380
885-12901-17	BS24-78 4'	Total/NA	Solid	8021B	13380
885-12901-18	BS24-79 4'	Total/NA	Solid	8021B	13380
885-12901-19	BS24-77 6'	Total/NA	Solid	8021B	13380
MB 885-13380/1-A	Method Blank	Total/NA	Solid	8021B	13380
LCS 885-13380/3-A	Lab Control Sample	Total/NA	Solid	8021B	13380
885-12901-2 MS	BS24-108 3'	Total/NA	Solid	8021B	13380
885-12901-2 MSD	BS24-108 3'	Total/NA	Solid	8021B	13380

GC Semi VOA

Analysis Batch: 13490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1	BS24-107 3'	Total/NA	Solid	8015M/D	13506
885-12901-2	BS24-108 3'	Total/NA	Solid	8015M/D	13506
885-12901-3	BS24-109 3'	Total/NA	Solid	8015M/D	13506
885-12901-4	BS24-110 3'	Total/NA	Solid	8015M/D	13506
885-12901-5	BS24-111 3'	Total/NA	Solid	8015M/D	13506
885-12901-6	BS24-112 3'	Total/NA	Solid	8015M/D	13506
885-12901-7	BS24-113 3'	Total/NA	Solid	8015M/D	13506
885-12901-8	BS24-114 3'	Total/NA	Solid	8015M/D	13506
885-12901-9	BS24-115 3'	Total/NA	Solid	8015M/D	13506
885-12901-10	BS24-116 2'	Total/NA	Solid	8015M/D	13506
885-12901-11	BS24-117 4'	Total/NA	Solid	8015M/D	13506
885-12901-12	WS24-16 0-3'	Total/NA	Solid	8015M/D	13506
885-12901-13	WS24-18 0-3'	Total/NA	Solid	8015M/D	13506
885-12901-14	WS24-19 0-3'	Total/NA	Solid	8015M/D	13506
885-12901-15	WS24-21 0-3'	Total/NA	Solid	8015M/D	13506
885-12901-16	WS24-06 0-4'	Total/NA	Solid	8015M/D	13506
885-12901-17	BS24-78 4'	Total/NA	Solid	8015M/D	13506
885-12901-18	BS24-79 4'	Total/NA	Solid	8015M/D	13506
885-12901-19	BS24-77 6'	Total/NA	Solid	8015M/D	13506

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

GC Semi VOA (Continued)

Analysis Batch: 13490 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-13506/1-B	Method Blank	Total/NA	Solid	8015M/D	13506
LCS 885-13506/2-B	Lab Control Sample	Total/NA	Solid	8015M/D	13506

Prep Batch: 13506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1	BS24-107 3'	Total/NA	Solid	SHAKE	
885-12901-2	BS24-108 3'	Total/NA	Solid	SHAKE	
885-12901-3	BS24-109 3'	Total/NA	Solid	SHAKE	
885-12901-4	BS24-110 3'	Total/NA	Solid	SHAKE	
885-12901-5	BS24-111 3'	Total/NA	Solid	SHAKE	
885-12901-6	BS24-112 3'	Total/NA	Solid	SHAKE	
885-12901-7	BS24-113 3'	Total/NA	Solid	SHAKE	
885-12901-8	BS24-114 3'	Total/NA	Solid	SHAKE	
885-12901-9	BS24-115 3'	Total/NA	Solid	SHAKE	
885-12901-10	BS24-116 2'	Total/NA	Solid	SHAKE	
885-12901-11	BS24-117 4'	Total/NA	Solid	SHAKE	
885-12901-12	WS24-16 0-3'	Total/NA	Solid	SHAKE	
885-12901-13	WS24-18 0-3'	Total/NA	Solid	SHAKE	
885-12901-14	WS24-19 0-3'	Total/NA	Solid	SHAKE	
885-12901-15	WS24-21 0-3'	Total/NA	Solid	SHAKE	
885-12901-16	WS24-06 0-4'	Total/NA	Solid	SHAKE	
885-12901-17	BS24-78 4'	Total/NA	Solid	SHAKE	
885-12901-18	BS24-79 4'	Total/NA	Solid	SHAKE	
885-12901-19	BS24-77 6'	Total/NA	Solid	SHAKE	
MB 885-13506/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-13506/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Analysis Batch: 13517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1	BS24-107 3'	Total/NA	Solid	300.0	13536
885-12901-2	BS24-108 3'	Total/NA	Solid	300.0	13536
885-12901-3	BS24-109 3'	Total/NA	Solid	300.0	13536
885-12901-4	BS24-110 3'	Total/NA	Solid	300.0	13536
885-12901-5	BS24-111 3'	Total/NA	Solid	300.0	13536
885-12901-6	BS24-112 3'	Total/NA	Solid	300.0	13536
885-12901-7	BS24-113 3'	Total/NA	Solid	300.0	13536
885-12901-8	BS24-114 3'	Total/NA	Solid	300.0	13536
885-12901-9	BS24-115 3'	Total/NA	Solid	300.0	13536
885-12901-10	BS24-116 2'	Total/NA	Solid	300.0	13536
885-12901-11	BS24-117 4'	Total/NA	Solid	300.0	13536
885-12901-12	WS24-16 0-3'	Total/NA	Solid	300.0	13536
885-12901-13	WS24-18 0-3'	Total/NA	Solid	300.0	13536
885-12901-14	WS24-19 0-3'	Total/NA	Solid	300.0	13536
885-12901-15	WS24-21 0-3'	Total/NA	Solid	300.0	13536
885-12901-16	WS24-06 0-4'	Total/NA	Solid	300.0	13536
885-12901-17	BS24-78 4'	Total/NA	Solid	300.0	13536
885-12901-18	BS24-79 4'	Total/NA	Solid	300.0	13536
885-12901-19	BS24-77 6'	Total/NA	Solid	300.0	13536
MB 885-13536/1-A	Method Blank	Total/NA	Solid	300.0	13536

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

HPLC/IC (Continued)

Analysis Batch: 13517 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-13536/2-A	Lab Control Sample	Total/NA	Solid	300.0	13536
885-12901-1 MS	BS24-107 3'	Total/NA	Solid	300.0	13536
885-12901-1 MSD	BS24-107 3'	Total/NA	Solid	300.0	13536
885-12901-11 MS	BS24-117 4'	Total/NA	Solid	300.0	13536
885-12901-11 MSD	BS24-117 4'	Total/NA	Solid	300.0	13536

Prep Batch: 13536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12901-1	BS24-107 3'	Total/NA	Solid	300_Prep	
885-12901-2	BS24-108 3'	Total/NA	Solid	300_Prep	
885-12901-3	BS24-109 3'	Total/NA	Solid	300_Prep	
885-12901-4	BS24-110 3'	Total/NA	Solid	300_Prep	
885-12901-5	BS24-111 3'	Total/NA	Solid	300_Prep	
885-12901-6	BS24-112 3'	Total/NA	Solid	300_Prep	
885-12901-7	BS24-113 3'	Total/NA	Solid	300_Prep	
885-12901-8	BS24-114 3'	Total/NA	Solid	300_Prep	
885-12901-9	BS24-115 3'	Total/NA	Solid	300_Prep	
885-12901-10	BS24-116 2'	Total/NA	Solid	300_Prep	
885-12901-11	BS24-117 4'	Total/NA	Solid	300_Prep	
885-12901-12	WS24-16 0-3'	Total/NA	Solid	300_Prep	
885-12901-13	WS24-18 0-3'	Total/NA	Solid	300_Prep	
885-12901-14	WS24-19 0-3'	Total/NA	Solid	300_Prep	
885-12901-15	WS24-21 0-3'	Total/NA	Solid	300_Prep	
885-12901-16	WS24-06 0-4'	Total/NA	Solid	300_Prep	
885-12901-17	BS24-78 4'	Total/NA	Solid	300_Prep	
885-12901-18	BS24-79 4'	Total/NA	Solid	300_Prep	
885-12901-19	BS24-77 6'	Total/NA	Solid	300_Prep	
MB 885-13536/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-13536/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-12901-1 MS	BS24-107 3'	Total/NA	Solid	300_Prep	
885-12901-1 MSD	BS24-107 3'	Total/NA	Solid	300_Prep	
885-12901-11 MS	BS24-117 4'	Total/NA	Solid	300_Prep	
885-12901-11 MSD	BS24-117 4'	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-107 3'
Date Collected: 09/26/24 09:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 15:51
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 15:51
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 13:49
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 16:35

Client Sample ID: BS24-108 3'
Date Collected: 09/26/24 09:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 16:56
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 16:56
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 13:59
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 17:39

Client Sample ID: BS24-109 3'
Date Collected: 09/26/24 10:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 18:01
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 18:01
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 14:10
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 17:52

Client Sample ID: BS24-110 3'
Date Collected: 09/26/24 10:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 18:23

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-110 3'
Date Collected: 09/26/24 10:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 18:23
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 14:21
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 18:05

Client Sample ID: BS24-111 3'
Date Collected: 09/26/24 11:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 18:45
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 18:45
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 14:31
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 18:17

Client Sample ID: BS24-112 3'
Date Collected: 09/26/24 11:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 19:07
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 19:07
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 14:42
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 18:30

Client Sample ID: BS24-113 3'
Date Collected: 09/26/24 12:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 19:28
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 19:28

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-113 3'
Date Collected: 09/26/24 12:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 14:53
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 18:43

Client Sample ID: BS24-114 3'
Date Collected: 09/26/24 12:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 19:50
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 19:50
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 15:03
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 18:56

Client Sample ID: BS24-115 3'
Date Collected: 09/26/24 13:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 20:12
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 20:12
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 15:25
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 19:09

Client Sample ID: BS24-116 2'
Date Collected: 09/26/24 13:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 20:34
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 20:34
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 15:36

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-116 2'
Date Collected: 09/26/24 13:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 19:22

Client Sample ID: BS24-117 4'
Date Collected: 09/26/24 14:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 21:17
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 21:17
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 15:47
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 20:00

Client Sample ID: WS24-16 0-3'
Date Collected: 09/27/24 09:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 21:39
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 21:39
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 15:57
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 20:39

Client Sample ID: WS24-18 0-3'
Date Collected: 09/27/24 10:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 22:00
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 22:00
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 16:08
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 20:52

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: WS24-19 0-3'
Date Collected: 09/27/24 10:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 22:22
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 22:22
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 16:19
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 21:05

Client Sample ID: WS24-21 0-3'
Date Collected: 09/27/24 11:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 22:44
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 22:44
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 16:30
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 21:18

Client Sample ID: WS24-06 0-4'
Date Collected: 09/27/24 12:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 23:05
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 23:05
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 16:41
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 21:30

Client Sample ID: BS24-78 4'
Date Collected: 09/27/24 12:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 23:27

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-12901-1

Client Sample ID: BS24-78 4'
Date Collected: 09/27/24 12:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 23:27
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 16:52
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 21:43

Client Sample ID: BS24-79 4'
Date Collected: 09/27/24 13:00
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/02/24 23:49
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/02/24 23:49
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 17:03
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 21:56

Client Sample ID: BS24-77 6'
Date Collected: 09/27/24 13:30
Date Received: 10/01/24 08:26

Lab Sample ID: 885-12901-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8015M/D		1	13565	AT	EET ALB	10/03/24 00:11
Total/NA	Prep	5030C			13380	JP	EET ALB	10/01/24 12:39
Total/NA	Analysis	8021B		1	13567	AT	EET ALB	10/03/24 00:11
Total/NA	Prep	SHAKE			13506	EM	EET ALB	10/02/24 11:47
Total/NA	Analysis	8015M/D		1	13490	EM	EET ALB	10/02/24 17:24
Total/NA	Prep	300_Prep			13536	EH	EET ALB	10/02/24 15:25
Total/NA	Analysis	300.0		20	13517	EH	EET ALB	10/02/24 22:35

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex
Job ID: 885-12901-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: (Mack Energy bill to) Vertex

Mailing Address: 3103 boyd dr. Carlsbad, NM, 88220

Phone #: 575 725-5001

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☒ Rush 5 Days

Project Name: Dawson Creek State #2

Project #: D

Project Manager: Sally Carlar scarlar@vertexresources 24E-03166

Sampler:

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 2.1 - 0.2 = 1.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-12901 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9/26	9:00	Soil	BS24 - 107	4oz	Ice	1	X	X								
"	9:30	"	" - 108	"	"	2										
	10:00		" - 109			3										
	10:30		" - 110			4										
	11:00		" - 111			5										
	11:30		" - 112			6										
	12:00		" - 113			7										
	12:30		" - 114			8										
	13:00		" - 115			9										
	13:30		" - 116			10										
	14:00		" - 117			11										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/27	5:00	Katrina Taylor			9/30/24	840
9/30/24	840			courier	10/1/24	8:26

Remarks: direct bill to mack Energy
ATTN: Matt Buckles (MattBuckles@mec.com)
CC: Sally Carlar @ vertexresourc.com for report

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Client: Vertex (bill to Mack)
Mailing Address: 3101 boyd dr Carlsbad, NM, 88220
Phone #: 575-725-3001
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush 5 Days
Project Name: Dawson Creek State #2
Project #: 24E-03166
Project Manager: Sally Carttar sCarttar@Vertex.com
Sampler:
On Ice: ☒ Yes ☐ No Yog'
# of Coolers: 1
Cooler Temp(including CF): 2.1 - 0.2 = 1.9 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
9/27	9:00	Soil	WS24-16	4oz	Ice	12
9/27	10:00		WS24-18			13
9/27	10:30		WS24-19			14
	11:30		WS24-[illegible]21			15
	12:00		WS24-6			16
	12:30		BS24-78			17
	13:00		BS24-79			18
9/27	13:30		BS24-77			19
			Added per client. -Tmc 10/1/24			

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
✓	✓					✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/30/24	1900	[signature]	[signature]		9/30/24	840
Date:	Time:	Relinquished by:	Received by:	Via: courier	Date	Time
			[signature]		10/1/24	8:20

Remarks:
Direct bill to mac Energy
ATTN: Matt Buckles (matt.buckles@mec.com)
CC: Sally Carttar (SCarttar@Vertex.com)

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report. for rep

Page 1041 of 1201

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-12901-1

Login Number: 12901 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/29/2024 8:02:33 AM Revision 1

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-13231-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
10/29/2024 8:02:33 AM
Revision 1

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-13231-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 25
QC Association Summary 30
Lab Chronicle 35
Certification Summary 41
Chain of Custody 42
Receipt Checklists 44

Definitions/Glossary

Client: Vertex Job ID: 885-13231-1
Project/Site: Dawson Creek State #2

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-13231-1
Project: Dawson Creek State #2

Job ID: 885-13231-1 Eurofins Albuquerque

Job Narrative
885-13231-1

REVISION

The report being provided is a revision of the original report sent on 10/11/2024. The report (revision 1) is being revised due to Sample 1 should be BS24-63 not BS24-55 per client.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/5/2024 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-13871 recovered outside acceptance criteria, low biased, for Diesel Range Organics [C10-C28]. Samples with low surrogate will be re-ran. The following samples are associated BS24-101 5' (885-13231-16), BS24-95 5' (885-13231-17), WS24-17 0-3' (885-13231-18), WS24-20 0-3' (885-13231-19) and (CCV 885-13871/34).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-22 3-5'
Date Collected: 10/01/24 09:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 12:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*10/07/24 11:06*	*10/08/24 12:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 12:46	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 12:46	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 12:46	1
Xylenes, Total	ND		0.097		mg/Kg		10/07/24 11:06	10/08/24 12:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/07/24 11:06*	*10/08/24 12:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/07/24 13:42	10/07/24 17:59	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/07/24 13:42	10/07/24 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*10/07/24 13:42*	*10/07/24 17:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		60		mg/Kg		10/07/24 15:05	10/07/24 17:11	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-23 3-4'
Date Collected: 10/01/24 09:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/07/24 11:06	10/08/24 13:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/07/24 11:06*	*10/08/24 13:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 13:56	1
Ethylbenzene	ND		0.048		mg/Kg		10/07/24 11:06	10/08/24 13:56	1
Toluene	ND		0.048		mg/Kg		10/07/24 11:06	10/08/24 13:56	1
Xylenes, Total	ND		0.097		mg/Kg		10/07/24 11:06	10/08/24 13:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/07/24 11:06*	*10/08/24 13:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		10/07/24 13:42	10/07/24 18:11	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		10/07/24 13:42	10/07/24 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*10/07/24 13:42*	*10/07/24 18:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/07/24 15:05	10/07/24 17:48	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-63 4'
Date Collected: 10/01/24 10:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/07/24 11:06	10/08/24 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/07/24 11:06*	*10/08/24 15:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/07/24 11:06	10/08/24 15:06	1
Ethylbenzene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 15:06	1
Toluene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 15:06	1
Xylenes, Total	ND		0.099		mg/Kg		10/07/24 11:06	10/08/24 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/07/24 11:06*	*10/08/24 15:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		10/07/24 13:42	10/07/24 18:22	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/07/24 13:42	10/07/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/07/24 13:42*	*10/07/24 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		10/07/24 15:05	10/07/24 18:01	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-56 4'
Date Collected: 10/01/24 10:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-4
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*10/07/24 11:06*	*10/08/24 15:30*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 15:30	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 15:30	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 15:30	1
Xylenes, Total	ND		0.098		mg/Kg		10/07/24 11:06	10/08/24 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/07/24 11:06*	*10/08/24 15:30*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		10/07/24 13:42	10/07/24 18:33	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/07/24 13:42	10/07/24 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*10/07/24 13:42*	*10/07/24 18:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		60		mg/Kg		10/07/24 15:05	10/07/24 18:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-49 4'
Date Collected: 10/01/24 11:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-5
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		10/07/24 11:06	10/08/24 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*10/07/24 11:06*	*10/08/24 15:53*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/07/24 11:06	10/08/24 15:53	1
Ethylbenzene	ND		0.046		mg/Kg		10/07/24 11:06	10/08/24 15:53	1
Toluene	ND		0.046		mg/Kg		10/07/24 11:06	10/08/24 15:53	1
Xylenes, Total	ND		0.092		mg/Kg		10/07/24 11:06	10/08/24 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/07/24 11:06*	*10/08/24 15:53*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/07/24 13:42	10/07/24 18:44	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/07/24 13:42	10/07/24 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*115*		*62 - 134*	*10/07/24 13:42*	*10/07/24 18:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/07/24 15:05	10/07/24 18:50	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-40 4'
Date Collected: 10/01/24 11:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-6
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*10/07/24 11:06*	*10/08/24 16:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 16:16	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 16:16	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 16:16	1
Xylenes, Total	ND		0.098		mg/Kg		10/07/24 11:06	10/08/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/07/24 11:06*	*10/08/24 16:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		10/07/24 13:42	10/07/24 19:07	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/07/24 13:42	10/07/24 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*10/07/24 13:42*	*10/07/24 19:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**75**		60		mg/Kg		10/07/24 15:05	10/07/24 19:02	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-07 0-3'
Date Collected: 10/01/24 12:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-7
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/07/24 11:06	10/08/24 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*10/07/24 11:06*	*10/08/24 16:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/07/24 11:06	10/08/24 16:40	1
Ethylbenzene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 16:40	1
Toluene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 16:40	1
Xylenes, Total	ND		0.099		mg/Kg		10/07/24 11:06	10/08/24 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/07/24 11:06*	*10/08/24 16:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		10/07/24 13:42	10/07/24 19:18	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/07/24 13:42	10/07/24 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*10/07/24 13:42*	*10/07/24 19:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90**		60		mg/Kg		10/07/24 15:05	10/07/24 19:15	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-24 3-4'
Date Collected: 10/01/24 12:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-8
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*10/07/24 11:06*	*10/08/24 17:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/07/24 11:06	10/08/24 17:03	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 17:03	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 17:03	1
Xylenes, Total	ND		0.098		mg/Kg		10/07/24 11:06	10/08/24 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/07/24 11:06*	*10/08/24 17:03*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.7		mg/Kg		10/07/24 13:42	10/07/24 19:29	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		10/07/24 13:42	10/07/24 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*10/07/24 13:42*	*10/07/24 19:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**210**		60		mg/Kg		10/07/24 15:05	10/07/24 19:27	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-25 3-4'
Date Collected: 10/01/24 13:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-9
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*10/07/24 11:06*	*10/08/24 17:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 17:27	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 17:27	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 17:27	1
Xylenes, Total	ND		0.097		mg/Kg		10/07/24 11:06	10/08/24 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/07/24 11:06*	*10/08/24 17:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/07/24 13:42	10/07/24 19:41	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/07/24 13:42	10/07/24 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*10/07/24 13:42*	*10/07/24 19:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**220**		60		mg/Kg		10/07/24 15:05	10/07/24 19:40	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-38 5'
Date Collected: 10/01/24 13:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-10
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/07/24 11:06	10/08/24 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*10/07/24 11:06*	*10/08/24 17:50*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 17:50	1
Ethylbenzene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 17:50	1
Toluene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 17:50	1
Xylenes, Total	ND		0.094		mg/Kg		10/07/24 11:06	10/08/24 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/07/24 11:06*	*10/08/24 17:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/07/24 13:42	10/07/24 19:52	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/07/24 13:42	10/07/24 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/07/24 13:42*	*10/07/24 19:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/07/24 15:05	10/07/24 19:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-09 3-5'
Date Collected: 10/01/24 14:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-11
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*10/07/24 11:06*	*10/08/24 18:37*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 18:37	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 18:37	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 18:37	1
Xylenes, Total	ND		0.097		mg/Kg		10/07/24 11:06	10/08/24 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/07/24 11:06*	*10/08/24 18:37*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		10/07/24 13:42	10/07/24 20:03	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		10/07/24 13:42	10/07/24 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*80*		*62 - 134*	*10/07/24 13:42*	*10/07/24 20:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/07/24 15:05	10/07/24 20:04	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-05 0-2'
Date Collected: 10/01/24 14:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-12
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/07/24 11:06	10/08/24 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/07/24 11:06*	*10/08/24 19:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 19:01	1
Ethylbenzene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 19:01	1
Toluene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 19:01	1
Xylenes, Total	ND		0.094		mg/Kg		10/07/24 11:06	10/08/24 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/07/24 11:06*	*10/08/24 19:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		10/07/24 13:42	10/07/24 20:14	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		10/07/24 13:42	10/07/24 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*10/07/24 13:42*	*10/07/24 20:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**210**		60		mg/Kg		10/07/24 15:05	10/07/24 21:06	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-26 3-4'
Date Collected: 10/02/24 09:20
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-13
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/07/24 11:06	10/08/24 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*10/07/24 11:06*	*10/08/24 19:24*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 19:24	1
Ethylbenzene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 19:24	1
Toluene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 19:24	1
Xylenes, Total	ND		0.094		mg/Kg		10/07/24 11:06	10/08/24 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/07/24 11:06*	*10/08/24 19:24*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/07/24 13:42	10/07/24 20:25	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/07/24 13:42	10/07/24 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*	*10/07/24 13:42*	*10/07/24 20:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		60		mg/Kg		10/07/24 15:05	10/07/24 21:18	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-62 6'
Date Collected: 10/02/24 09:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-14
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*10/07/24 11:06*	*10/08/24 19:47*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 19:47	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 19:47	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 19:47	1
Xylenes, Total	ND		0.097		mg/Kg		10/07/24 11:06	10/08/24 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/07/24 11:06*	*10/08/24 19:47*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/07/24 13:42	10/07/24 20:36	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/07/24 13:42	10/07/24 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*10/07/24 13:42*	*10/07/24 20:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		60		mg/Kg		10/07/24 15:05	10/07/24 21:31	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-54 6'
Date Collected: 10/02/24 10:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-15
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/07/24 11:06*	*10/08/24 20:11*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/07/24 11:06	10/08/24 20:11	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 20:11	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 20:11	1
Xylenes, Total	ND		0.098		mg/Kg		10/07/24 11:06	10/08/24 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/07/24 11:06*	*10/08/24 20:11*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/07/24 13:42	10/07/24 20:47	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/07/24 13:42	10/07/24 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*10/07/24 13:42*	*10/07/24 20:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**210**		60		mg/Kg		10/07/24 15:05	10/07/24 21:43	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-101 5'
Date Collected: 10/02/24 10:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-16
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/07/24 11:06	10/08/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*10/07/24 11:06*	*10/08/24 20:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/07/24 11:06	10/08/24 20:34	1
Ethylbenzene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 20:34	1
Toluene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 20:34	1
Xylenes, Total	ND		0.10		mg/Kg		10/07/24 11:06	10/08/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/07/24 11:06*	*10/08/24 20:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		10/08/24 11:46	10/08/24 17:44	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		10/08/24 11:46	10/08/24 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*10/08/24 11:46*	*10/08/24 17:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84**		60		mg/Kg		10/08/24 12:40	10/08/24 15:01	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-95 5'
Date Collected: 10/02/24 11:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-17
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/07/24 11:06	10/08/24 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/07/24 11:06*	*10/08/24 20:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/07/24 11:06	10/08/24 20:58	1
Ethylbenzene	ND		0.048		mg/Kg		10/07/24 11:06	10/08/24 20:58	1
Toluene	ND		0.048		mg/Kg		10/07/24 11:06	10/08/24 20:58	1
Xylenes, Total	ND		0.097		mg/Kg		10/07/24 11:06	10/08/24 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/07/24 11:06*	*10/08/24 20:58*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/08/24 11:46	10/08/24 17:55	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/08/24 11:46	10/08/24 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*10/08/24 11:46*	*10/08/24 17:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		60		mg/Kg		10/08/24 12:40	10/08/24 15:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-17 0-3'
Date Collected: 10/02/24 11:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-18
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/07/24 11:06	10/08/24 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*10/07/24 11:06*	*10/08/24 21:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/07/24 11:06	10/08/24 21:22	1
Ethylbenzene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 21:22	1
Toluene	ND		0.047		mg/Kg		10/07/24 11:06	10/08/24 21:22	1
Xylenes, Total	ND		0.094		mg/Kg		10/07/24 11:06	10/08/24 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/07/24 11:06*	*10/08/24 21:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/08/24 11:46	10/08/24 18:06	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/08/24 11:46	10/08/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*78*		*62 - 134*	*10/08/24 11:46*	*10/08/24 18:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		10/08/24 12:40	10/08/24 16:15	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-20 0-3'
Date Collected: 10/02/24 12:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-19
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/07/24 11:06	10/08/24 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/07/24 11:06*	*10/08/24 21:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/07/24 11:06	10/08/24 21:45	1
Ethylbenzene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 21:45	1
Toluene	ND		0.049		mg/Kg		10/07/24 11:06	10/08/24 21:45	1
Xylenes, Total	ND		0.098		mg/Kg		10/07/24 11:06	10/08/24 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/07/24 11:06*	*10/08/24 21:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/08/24 11:46	10/08/24 18:17	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/08/24 11:46	10/08/24 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*78*		*62 - 134*	*10/08/24 11:46*	*10/08/24 18:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/08/24 12:40	10/08/24 16:27	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-13804/1-A
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13804

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/07/24 11:06	10/08/24 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/07/24 11:06*	*10/08/24 12:23*	*1*

Lab Sample ID: LCS 885-13804/2-A
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13804

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.3		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*211*		*35 - 166*

Lab Sample ID: 885-13231-1 MS
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: WS24-22 3-5'
Prep Type: Total/NA
Prep Batch: 13804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.2	26.8		mg/Kg		111	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*225*		*35 - 166*

Lab Sample ID: 885-13231-1 MSD
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: WS24-22 3-5'
Prep Type: Total/NA
Prep Batch: 13804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.2	25.8		mg/Kg		107	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*217*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-13804/1-A
Matrix: Solid
Analysis Batch: 13939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13804

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/07/24 11:06	10/08/24 12:23	1
Ethylbenzene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 12:23	1
Toluene	ND		0.050		mg/Kg		10/07/24 11:06	10/08/24 12:23	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-13804/1-A
Matrix: Solid
Analysis Batch: 13939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13804

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		10/07/24 11:06	10/08/24 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/07/24 11:06*	*10/08/24 12:23*	*1*

Lab Sample ID: LCS 885-13804/3-A
Matrix: Solid
Analysis Batch: 13939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13804

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.02		mg/Kg		102	70 - 130		
Ethylbenzene			1.00	1.00		mg/Kg		100	70 - 130		
m,p-Xylene			2.00	2.05		mg/Kg		102	70 - 130		
o-Xylene			1.00	1.00		mg/Kg		100	70 - 130		
Toluene			1.00	0.997		mg/Kg		100	70 - 130		
Xylenes, Total			3.00	3.05		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*

Lab Sample ID: 885-13231-2 MS
Matrix: Solid
Analysis Batch: 13939

Client Sample ID: WS24-23 3-4'
Prep Type: Total/NA
Prep Batch: 13804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.963	1.03		mg/Kg		106	70 - 130		
Ethylbenzene	ND		0.963	1.05		mg/Kg		109	70 - 130		
m,p-Xylene	ND		1.93	2.10		mg/Kg		108	70 - 130		
o-Xylene	ND		0.963	1.05		mg/Kg		109	70 - 130		
Toluene	ND		0.963	1.02		mg/Kg		104	70 - 130		
Xylenes, Total	ND		2.89	3.15		mg/Kg		108	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-13231-2 MSD
Matrix: Solid
Analysis Batch: 13939

Client Sample ID: WS24-23 3-4'
Prep Type: Total/NA
Prep Batch: 13804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.973	1.05		mg/Kg		108	70 - 130	2	20
Ethylbenzene	ND		0.973	1.06		mg/Kg		109	70 - 130	1	20
m,p-Xylene	ND		1.95	2.11		mg/Kg		107	70 - 130	0	20
o-Xylene	ND		0.973	1.06		mg/Kg		109	70 - 130	1	20
Toluene	ND		0.973	1.03		mg/Kg		105	70 - 130	1	20
Xylenes, Total	ND		2.92	3.17		mg/Kg		108	70 - 130	1	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-13231-2 MSD
Matrix: Solid
Analysis Batch: 13939

Client Sample ID: WS24-23 3-4'
Prep Type: Total/NA
Prep Batch: 13804

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-13821/1-A
Matrix: Solid
Analysis Batch: 13801

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13821

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/07/24 13:42	10/07/24 16:22	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/07/24 13:42	10/07/24 16:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*10/07/24 13:42*	*10/07/24 16:22*	*1*

Lab Sample ID: LCS 885-13821/2-A
Matrix: Solid
Analysis Batch: 13801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13821

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	38.7		mg/Kg		77	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*

Lab Sample ID: 885-13231-15 MS
Matrix: Solid
Analysis Batch: 13801

Client Sample ID: BS24-54 6'
Prep Type: Total/NA
Prep Batch: 13821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		45.3	42.1		mg/Kg		93	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*

Lab Sample ID: 885-13231-15 MSD
Matrix: Solid
Analysis Batch: 13801

Client Sample ID: BS24-54 6'
Prep Type: Total/NA
Prep Batch: 13821

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.3	43.7		mg/Kg		92	44 - 136	4	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	*80*		*62 - 134*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-13886/1-A
Matrix: Solid
Analysis Batch: 13871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13886

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/08/24 11:46	10/08/24 17:23	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/08/24 11:46	10/08/24 17:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*10/08/24 11:46*	*10/08/24 17:23*	*1*

Lab Sample ID: LCS 885-13886/2-A
Matrix: Solid
Analysis Batch: 13871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13886

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	42.4		mg/Kg		85	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-13831/1-A
Matrix: Solid
Analysis Batch: 13849

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13831

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/07/24 15:05	10/07/24 16:47	1

Lab Sample ID: LCS 885-13831/2-A
Matrix: Solid
Analysis Batch: 13849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13831

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.6		mg/Kg		95	90 - 110		

Lab Sample ID: 885-13231-1 MS
Matrix: Solid
Analysis Batch: 13849

Client Sample ID: WS24-22 3-5'
Prep Type: Total/NA
Prep Batch: 13831

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	230		30.2	269	4	mg/Kg		120	50 - 150		

Lab Sample ID: 885-13231-1 MSD
Matrix: Solid
Analysis Batch: 13849

Client Sample ID: WS24-22 3-5'
Prep Type: Total/NA
Prep Batch: 13831

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	230		30.3	266	4	mg/Kg		111	50 - 150	1	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-13889/1-A
Matrix: Solid
Analysis Batch: 13948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13889

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/08/24 12:40	10/08/24 14:36	1

Lab Sample ID: LCS 885-13889/2-A
Matrix: Solid
Analysis Batch: 13948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13889

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.3		mg/Kg		98	90 - 110		

Lab Sample ID: 885-13231-16 MS
Matrix: Solid
Analysis Batch: 13948

Client Sample ID: BS24-101 5'
Prep Type: Total/NA
Prep Batch: 13889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	84		30.0	102		mg/Kg		58	50 - 150		

Lab Sample ID: 885-13231-16 MSD
Matrix: Solid
Analysis Batch: 13948

Client Sample ID: BS24-101 5'
Prep Type: Total/NA
Prep Batch: 13889

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	84		29.8	103		mg/Kg		64	50 - 150	1	20

Lab Sample ID: 885-13231-17 MS
Matrix: Solid
Analysis Batch: 13948

Client Sample ID: BS24-95 5'
Prep Type: Total/NA
Prep Batch: 13889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	200		30.0	237	4	mg/Kg		111	50 - 150		

Lab Sample ID: 885-13231-17 MSD
Matrix: Solid
Analysis Batch: 13948

Client Sample ID: BS24-95 5'
Prep Type: Total/NA
Prep Batch: 13889

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	200		29.7	234	4	mg/Kg		102	50 - 150	1	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

GC VOA

Prep Batch: 13804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1	WS24-22 3-5'	Total/NA	Solid	5030C	
885-13231-2	WS24-23 3-4'	Total/NA	Solid	5030C	
885-13231-3	BS24-63 4'	Total/NA	Solid	5030C	
885-13231-4	BS24-56 4'	Total/NA	Solid	5030C	
885-13231-5	BS24-49 4'	Total/NA	Solid	5030C	
885-13231-6	BS24-40 4'	Total/NA	Solid	5030C	
885-13231-7	WS24-07 0-3'	Total/NA	Solid	5030C	
885-13231-8	WS24-24 3-4'	Total/NA	Solid	5030C	
885-13231-9	WS24-25 3-4'	Total/NA	Solid	5030C	
885-13231-10	BS24-38 5'	Total/NA	Solid	5030C	
885-13231-11	WS24-09 3-5'	Total/NA	Solid	5030C	
885-13231-12	WS24-05 0-2'	Total/NA	Solid	5030C	
885-13231-13	WS24-26 3-4'	Total/NA	Solid	5030C	
885-13231-14	BS24-62 6'	Total/NA	Solid	5030C	
885-13231-15	BS24-54 6'	Total/NA	Solid	5030C	
885-13231-16	BS24-101 5'	Total/NA	Solid	5030C	
885-13231-17	BS24-95 5'	Total/NA	Solid	5030C	
885-13231-18	WS24-17 0-3'	Total/NA	Solid	5030C	
885-13231-19	WS24-20 0-3'	Total/NA	Solid	5030C	
MB 885-13804/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-13804/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-13804/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-13231-1 MS	WS24-22 3-5'	Total/NA	Solid	5030C	
885-13231-1 MSD	WS24-22 3-5'	Total/NA	Solid	5030C	
885-13231-2 MS	WS24-23 3-4'	Total/NA	Solid	5030C	
885-13231-2 MSD	WS24-23 3-4'	Total/NA	Solid	5030C	

Analysis Batch: 13938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1	WS24-22 3-5'	Total/NA	Solid	8015M/D	13804
885-13231-2	WS24-23 3-4'	Total/NA	Solid	8015M/D	13804
885-13231-3	BS24-63 4'	Total/NA	Solid	8015M/D	13804
885-13231-4	BS24-56 4'	Total/NA	Solid	8015M/D	13804
885-13231-5	BS24-49 4'	Total/NA	Solid	8015M/D	13804
885-13231-6	BS24-40 4'	Total/NA	Solid	8015M/D	13804
885-13231-7	WS24-07 0-3'	Total/NA	Solid	8015M/D	13804
885-13231-8	WS24-24 3-4'	Total/NA	Solid	8015M/D	13804
885-13231-9	WS24-25 3-4'	Total/NA	Solid	8015M/D	13804
885-13231-10	BS24-38 5'	Total/NA	Solid	8015M/D	13804
885-13231-11	WS24-09 3-5'	Total/NA	Solid	8015M/D	13804
885-13231-12	WS24-05 0-2'	Total/NA	Solid	8015M/D	13804
885-13231-13	WS24-26 3-4'	Total/NA	Solid	8015M/D	13804
885-13231-14	BS24-62 6'	Total/NA	Solid	8015M/D	13804
885-13231-15	BS24-54 6'	Total/NA	Solid	8015M/D	13804
885-13231-16	BS24-101 5'	Total/NA	Solid	8015M/D	13804
885-13231-17	BS24-95 5'	Total/NA	Solid	8015M/D	13804
885-13231-18	WS24-17 0-3'	Total/NA	Solid	8015M/D	13804
885-13231-19	WS24-20 0-3'	Total/NA	Solid	8015M/D	13804
MB 885-13804/1-A	Method Blank	Total/NA	Solid	8015M/D	13804
LCS 885-13804/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13804
885-13231-1 MS	WS24-22 3-5'	Total/NA	Solid	8015M/D	13804

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

GC VOA (Continued)

Analysis Batch: 13938 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1 MSD	WS24-22 3-5'	Total/NA	Solid	8015M/D	13804

Analysis Batch: 13939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1	WS24-22 3-5'	Total/NA	Solid	8021B	13804
885-13231-2	WS24-23 3-4'	Total/NA	Solid	8021B	13804
885-13231-3	BS24-63 4'	Total/NA	Solid	8021B	13804
885-13231-4	BS24-56 4'	Total/NA	Solid	8021B	13804
885-13231-5	BS24-49 4'	Total/NA	Solid	8021B	13804
885-13231-6	BS24-40 4'	Total/NA	Solid	8021B	13804
885-13231-7	WS24-07 0-3'	Total/NA	Solid	8021B	13804
885-13231-8	WS24-24 3-4'	Total/NA	Solid	8021B	13804
885-13231-9	WS24-25 3-4'	Total/NA	Solid	8021B	13804
885-13231-10	BS24-38 5'	Total/NA	Solid	8021B	13804
885-13231-11	WS24-09 3-5'	Total/NA	Solid	8021B	13804
885-13231-12	WS24-05 0-2'	Total/NA	Solid	8021B	13804
885-13231-13	WS24-26 3-4'	Total/NA	Solid	8021B	13804
885-13231-14	BS24-62 6'	Total/NA	Solid	8021B	13804
885-13231-15	BS24-54 6'	Total/NA	Solid	8021B	13804
885-13231-16	BS24-101 5'	Total/NA	Solid	8021B	13804
885-13231-17	BS24-95 5'	Total/NA	Solid	8021B	13804
885-13231-18	WS24-17 0-3'	Total/NA	Solid	8021B	13804
885-13231-19	WS24-20 0-3'	Total/NA	Solid	8021B	13804
MB 885-13804/1-A	Method Blank	Total/NA	Solid	8021B	13804
LCS 885-13804/3-A	Lab Control Sample	Total/NA	Solid	8021B	13804
885-13231-2 MS	WS24-23 3-4'	Total/NA	Solid	8021B	13804
885-13231-2 MSD	WS24-23 3-4'	Total/NA	Solid	8021B	13804

GC Semi VOA

Analysis Batch: 13801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1	WS24-22 3-5'	Total/NA	Solid	8015M/D	13821
885-13231-2	WS24-23 3-4'	Total/NA	Solid	8015M/D	13821
885-13231-3	BS24-63 4'	Total/NA	Solid	8015M/D	13821
885-13231-4	BS24-56 4'	Total/NA	Solid	8015M/D	13821
885-13231-5	BS24-49 4'	Total/NA	Solid	8015M/D	13821
885-13231-6	BS24-40 4'	Total/NA	Solid	8015M/D	13821
885-13231-7	WS24-07 0-3'	Total/NA	Solid	8015M/D	13821
885-13231-8	WS24-24 3-4'	Total/NA	Solid	8015M/D	13821
885-13231-9	WS24-25 3-4'	Total/NA	Solid	8015M/D	13821
885-13231-10	BS24-38 5'	Total/NA	Solid	8015M/D	13821
885-13231-11	WS24-09 3-5'	Total/NA	Solid	8015M/D	13821
885-13231-12	WS24-05 0-2'	Total/NA	Solid	8015M/D	13821
885-13231-13	WS24-26 3-4'	Total/NA	Solid	8015M/D	13821
885-13231-14	BS24-62 6'	Total/NA	Solid	8015M/D	13821
885-13231-15	BS24-54 6'	Total/NA	Solid	8015M/D	13821
MB 885-13821/1-A	Method Blank	Total/NA	Solid	8015M/D	13821
LCS 885-13821/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13821
885-13231-15 MS	BS24-54 6'	Total/NA	Solid	8015M/D	13821
885-13231-15 MSD	BS24-54 6'	Total/NA	Solid	8015M/D	13821

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

GC Semi VOA

Prep Batch: 13821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1	WS24-22 3-5'	Total/NA	Solid	SHAKE	
885-13231-2	WS24-23 3-4'	Total/NA	Solid	SHAKE	
885-13231-3	BS24-63 4'	Total/NA	Solid	SHAKE	
885-13231-4	BS24-56 4'	Total/NA	Solid	SHAKE	
885-13231-5	BS24-49 4'	Total/NA	Solid	SHAKE	
885-13231-6	BS24-40 4'	Total/NA	Solid	SHAKE	
885-13231-7	WS24-07 0-3'	Total/NA	Solid	SHAKE	
885-13231-8	WS24-24 3-4'	Total/NA	Solid	SHAKE	
885-13231-9	WS24-25 3-4'	Total/NA	Solid	SHAKE	
885-13231-10	BS24-38 5'	Total/NA	Solid	SHAKE	
885-13231-11	WS24-09 3-5'	Total/NA	Solid	SHAKE	
885-13231-12	WS24-05 0-2'	Total/NA	Solid	SHAKE	
885-13231-13	WS24-26 3-4'	Total/NA	Solid	SHAKE	
885-13231-14	BS24-62 6'	Total/NA	Solid	SHAKE	
885-13231-15	BS24-54 6'	Total/NA	Solid	SHAKE	
MB 885-13821/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-13821/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-13231-15 MS	BS24-54 6'	Total/NA	Solid	SHAKE	
885-13231-15 MSD	BS24-54 6'	Total/NA	Solid	SHAKE	

Analysis Batch: 13871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-16	BS24-101 5'	Total/NA	Solid	8015M/D	13886
885-13231-17	BS24-95 5'	Total/NA	Solid	8015M/D	13886
885-13231-18	WS24-17 0-3'	Total/NA	Solid	8015M/D	13886
885-13231-19	WS24-20 0-3'	Total/NA	Solid	8015M/D	13886
MB 885-13886/1-A	Method Blank	Total/NA	Solid	8015M/D	13886
LCS 885-13886/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13886

Prep Batch: 13886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-16	BS24-101 5'	Total/NA	Solid	SHAKE	
885-13231-17	BS24-95 5'	Total/NA	Solid	SHAKE	
885-13231-18	WS24-17 0-3'	Total/NA	Solid	SHAKE	
885-13231-19	WS24-20 0-3'	Total/NA	Solid	SHAKE	
MB 885-13886/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-13886/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 13831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1	WS24-22 3-5'	Total/NA	Solid	300_Prep	
885-13231-2	WS24-23 3-4'	Total/NA	Solid	300_Prep	
885-13231-3	BS24-63 4'	Total/NA	Solid	300_Prep	
885-13231-4	BS24-56 4'	Total/NA	Solid	300_Prep	
885-13231-5	BS24-49 4'	Total/NA	Solid	300_Prep	
885-13231-6	BS24-40 4'	Total/NA	Solid	300_Prep	
885-13231-7	WS24-07 0-3'	Total/NA	Solid	300_Prep	
885-13231-8	WS24-24 3-4'	Total/NA	Solid	300_Prep	
885-13231-9	WS24-25 3-4'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

HPLC/IC (Continued)

Prep Batch: 13831 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-10	BS24-38 5'	Total/NA	Solid	300_Prep	
885-13231-11	WS24-09 3-5'	Total/NA	Solid	300_Prep	
885-13231-12	WS24-05 0-2'	Total/NA	Solid	300_Prep	
885-13231-13	WS24-26 3-4'	Total/NA	Solid	300_Prep	
885-13231-14	BS24-62 6'	Total/NA	Solid	300_Prep	
885-13231-15	BS24-54 6'	Total/NA	Solid	300_Prep	
MB 885-13831/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-13831/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-13231-1 MS	WS24-22 3-5'	Total/NA	Solid	300_Prep	
885-13231-1 MSD	WS24-22 3-5'	Total/NA	Solid	300_Prep	

Analysis Batch: 13849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-1	WS24-22 3-5'	Total/NA	Solid	300.0	13831
885-13231-2	WS24-23 3-4'	Total/NA	Solid	300.0	13831
885-13231-3	BS24-63 4'	Total/NA	Solid	300.0	13831
885-13231-4	BS24-56 4'	Total/NA	Solid	300.0	13831
885-13231-5	BS24-49 4'	Total/NA	Solid	300.0	13831
885-13231-6	BS24-40 4'	Total/NA	Solid	300.0	13831
885-13231-7	WS24-07 0-3'	Total/NA	Solid	300.0	13831
885-13231-8	WS24-24 3-4'	Total/NA	Solid	300.0	13831
885-13231-9	WS24-25 3-4'	Total/NA	Solid	300.0	13831
885-13231-10	BS24-38 5'	Total/NA	Solid	300.0	13831
885-13231-11	WS24-09 3-5'	Total/NA	Solid	300.0	13831
885-13231-12	WS24-05 0-2'	Total/NA	Solid	300.0	13831
885-13231-13	WS24-26 3-4'	Total/NA	Solid	300.0	13831
885-13231-14	BS24-62 6'	Total/NA	Solid	300.0	13831
885-13231-15	BS24-54 6'	Total/NA	Solid	300.0	13831
MB 885-13831/1-A	Method Blank	Total/NA	Solid	300.0	13831
LCS 885-13831/2-A	Lab Control Sample	Total/NA	Solid	300.0	13831
885-13231-1 MS	WS24-22 3-5'	Total/NA	Solid	300.0	13831
885-13231-1 MSD	WS24-22 3-5'	Total/NA	Solid	300.0	13831

Prep Batch: 13889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-16	BS24-101 5'	Total/NA	Solid	300_Prep	
885-13231-17	BS24-95 5'	Total/NA	Solid	300_Prep	
885-13231-18	WS24-17 0-3'	Total/NA	Solid	300_Prep	
885-13231-19	WS24-20 0-3'	Total/NA	Solid	300_Prep	
MB 885-13889/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-13889/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-13231-16 MS	BS24-101 5'	Total/NA	Solid	300_Prep	
885-13231-16 MSD	BS24-101 5'	Total/NA	Solid	300_Prep	
885-13231-17 MS	BS24-95 5'	Total/NA	Solid	300_Prep	
885-13231-17 MSD	BS24-95 5'	Total/NA	Solid	300_Prep	

Analysis Batch: 13948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-16	BS24-101 5'	Total/NA	Solid	300.0	13889
885-13231-17	BS24-95 5'	Total/NA	Solid	300.0	13889
885-13231-18	WS24-17 0-3'	Total/NA	Solid	300.0	13889

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

HPLC/IC (Continued)

Analysis Batch: 13948 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13231-19	WS24-20 0-3'	Total/NA	Solid	300.0	13889
MB 885-13889/1-A	Method Blank	Total/NA	Solid	300.0	13889
LCS 885-13889/2-A	Lab Control Sample	Total/NA	Solid	300.0	13889
885-13231-16 MS	BS24-101 5'	Total/NA	Solid	300.0	13889
885-13231-16 MSD	BS24-101 5'	Total/NA	Solid	300.0	13889
885-13231-17 MS	BS24-95 5'	Total/NA	Solid	300.0	13889
885-13231-17 MSD	BS24-95 5'	Total/NA	Solid	300.0	13889

Lab Chronicle

Client: Vertex
Job ID: 885-13231-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-22 3-5'
Lab Sample ID: 885-13231-1
Date Collected: 10/01/24 09:00
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 12:46
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 12:46
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 17:59
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 17:11

Client Sample ID: WS24-23 3-4'
Lab Sample ID: 885-13231-2
Date Collected: 10/01/24 09:30
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 13:56
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 13:56
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 18:11
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 17:48

Client Sample ID: BS24-63 4'
Lab Sample ID: 885-13231-3
Date Collected: 10/01/24 10:00
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 15:06
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 15:06
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 18:22
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 18:01

Client Sample ID: BS24-56 4'
Lab Sample ID: 885-13231-4
Date Collected: 10/01/24 10:30
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 15:30

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-56 4'
Date Collected: 10/01/24 10:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 15:30
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 18:33
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 18:38

Client Sample ID: BS24-49 4'
Date Collected: 10/01/24 11:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 15:53
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 15:53
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 18:44
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 18:50

Client Sample ID: BS24-40 4'
Date Collected: 10/01/24 11:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 16:16
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 16:16
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 19:07
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 19:02

Client Sample ID: WS24-07 0-3'
Date Collected: 10/01/24 12:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 16:40
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 16:40

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: WS24-07 0-3'
Lab Sample ID: 885-13231-7
Date Collected: 10/01/24 12:00
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 19:18
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 19:15

Client Sample ID: WS24-24 3-4'
Lab Sample ID: 885-13231-8
Date Collected: 10/01/24 12:30
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 17:03
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 17:03
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 19:29
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 19:27

Client Sample ID: WS24-25 3-4'
Lab Sample ID: 885-13231-9
Date Collected: 10/01/24 13:00
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 17:27
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 17:27
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 19:41
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 19:40

Client Sample ID: BS24-38 5'
Lab Sample ID: 885-13231-10
Date Collected: 10/01/24 13:30
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 17:50
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 17:50
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 19:52

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-38 5'
Date Collected: 10/01/24 13:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 19:52

Client Sample ID: WS24-09 3-5'
Date Collected: 10/01/24 14:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 18:37
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 18:37
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 20:03
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 20:04

Client Sample ID: WS24-05 0-2'
Date Collected: 10/01/24 14:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 19:01
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 19:01
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 20:14
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 21:06

Client Sample ID: WS24-26 3-4'
Date Collected: 10/02/24 09:20
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 19:24
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 19:24
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 20:25
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 21:18

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13231-1

Client Sample ID: BS24-62 6'
Date Collected: 10/02/24 09:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 19:47
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 19:47
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 20:36
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 21:31

Client Sample ID: BS24-54 6'
Date Collected: 10/02/24 10:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 20:11
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 20:11
Total/NA	Prep	SHAKE			13821	KR	EET ALB	10/07/24 13:42
Total/NA	Analysis	8015M/D		1	13801	KR	EET ALB	10/07/24 20:47
Total/NA	Prep	300_Prep			13831	EH	EET ALB	10/07/24 15:05
Total/NA	Analysis	300.0		20	13849	EH	EET ALB	10/07/24 21:43

Client Sample ID: BS24-101 5'
Date Collected: 10/02/24 10:30
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 20:34
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 20:34
Total/NA	Prep	SHAKE			13886	KR	EET ALB	10/08/24 11:46
Total/NA	Analysis	8015M/D		1	13871	KR	EET ALB	10/08/24 17:44
Total/NA	Prep	300_Prep			13889	JT	EET ALB	10/08/24 12:40
Total/NA	Analysis	300.0		20	13948	EH	EET ALB	10/08/24 15:01

Client Sample ID: BS24-95 5'
Date Collected: 10/02/24 11:00
Date Received: 10/05/24 09:00

Lab Sample ID: 885-13231-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 20:58

Lab Chronicle

Client: Vertex
Job ID: 885-13231-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-95 5'
Lab Sample ID: 885-13231-17
Date Collected: 10/02/24 11:00
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 20:58
Total/NA	Prep	SHAKE			13886	KR	EET ALB	10/08/24 11:46
Total/NA	Analysis	8015M/D		1	13871	KR	EET ALB	10/08/24 17:55
Total/NA	Prep	300_Prep			13889	JT	EET ALB	10/08/24 12:40
Total/NA	Analysis	300.0		20	13948	EH	EET ALB	10/08/24 15:38

Client Sample ID: WS24-17 0-3'
Lab Sample ID: 885-13231-18
Date Collected: 10/02/24 11:30
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 21:22
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 21:22
Total/NA	Prep	SHAKE			13886	KR	EET ALB	10/08/24 11:46
Total/NA	Analysis	8015M/D		1	13871	KR	EET ALB	10/08/24 18:06
Total/NA	Prep	300_Prep			13889	JT	EET ALB	10/08/24 12:40
Total/NA	Analysis	300.0		20	13948	EH	EET ALB	10/08/24 16:15

Client Sample ID: WS24-20 0-3'
Lab Sample ID: 885-13231-19
Date Collected: 10/02/24 12:00
Matrix: Solid
Date Received: 10/05/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8015M/D		1	13938	JP	EET ALB	10/08/24 21:45
Total/NA	Prep	5030C			13804	JP	EET ALB	10/07/24 11:06
Total/NA	Analysis	8021B		1	13939	JP	EET ALB	10/08/24 21:45
Total/NA	Prep	SHAKE			13886	KR	EET ALB	10/08/24 11:46
Total/NA	Analysis	8015M/D		1	13871	KR	EET ALB	10/08/24 18:17
Total/NA	Prep	300_Prep			13889	JT	EET ALB	10/08/24 12:40
Total/NA	Analysis	300.0		20	13948	EH	EET ALB	10/08/24 16:27

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-13231-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Mack Energy (Attn: Overtex) Direct Bill Mack

Mailing Address: 3103 boyd dr. Carlsbad NM, 88220

Phone #: 575 725-5066

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☒ Rush 5 Days

Project Name: Dawson Creek State 2

Project #: 24E-03166

Project Manager: SCarttar@overtexresource.com Sally Carttar

Sampler: Katrina Taylor

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.0 +0 = 3.0 (°C)

HALL ENVIRONM
ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 871(
Tel. 505-345-3975 Fax 505-345-4107

885-13231 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/1	9:00	Soil	WS24-22 3-5'	4oz	ice	1										
	9:30		WS24-23 3-4'			2										
	10:00		BS24-55 4'			3										
	10:30		BS24-56 4'			4										
	11:00		BS24-49 4'			5										
	11:30		BS24-46 4'			6										
	12:00		~~BS24~~ WS24-07 0-3'			7										
	12:30		WS24-24 3-4'			8										
	13:00		WS24-25 3-4'			9										
	13:30		BS24-38 5'			10										
	14:00		WS24-09 3-5'			11										
	14:30		WS24-05 6-7'			12										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/2	5pm	Katrina Taylor			10/4/24	730
10/4/24	9:00			courier	10/15/24	9:00

Remarks: direct bill to mack Energy
ATTN: Matt Buckles (matt buckles@mec.com)
CC: Sally Carttar@overtexresource.com for report

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: Vertex (bill to mack)

Mailing Address: 3103 boyd dr. Carlsbad, NM, 88220

Phone #: 575-725-5001

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☒ Rush 5 Day

Project Name: Dawson Creek state #2

Project #: 24E-03166

Project Manager: Sally Carttar

SCarttar@vertexresource.com

Sampler:

On Ice: ☒ Yes ☐ No yogi

# of Coolers: 1

Cooler Temp(including CF): 3.0 +0.3 = 3.0 (°C)

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/2	9:00	Soil	WS24-26 3-4'	4oz	ICE	13										
	9:30		BS24-62 6'			14										
	10:00		BS24-54 6'			15										
	10:30		BS24-101 5'			16										
	11:00		BS24-95 5'			17										
	11:30		WS24-17 0-3'			18										
	12:00		WS24-20 0-3'			19										
	~~12:30~~															

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/2	5pm	Katrina Taylor			10/4/24	1130
10/4/24	9:00			courier	10/5/24	9:00

Remarks:

direct bill to Mack Energy

ATTN: Matt Buckles (Matt.buckles@mec.com)

CC: Sally Carttar@vertexresource.com for report

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Received by OCD: 12/11/2024 12:00:41 AM

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-13231-1

Login Number: 13231 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/18/2024 2:30:21 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-13301-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
10/18/2024 2:30:21 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-13301-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 16
QC Association Summary 20
Lab Chronicle 23
Certification Summary 27
Chain of Custody 28
Receipt Checklists 29

Definitions/Glossary

Client: Vertex Job ID: 885-13301-1
Project/Site: Dawson Creek State #2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-13301-1
Project: Dawson Creek State #2

Job ID: 885-13301-1 Eurofins Albuquerque

Job Narrative
885-13301-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/8/2024 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-13 0-3'

Date Collected: 10/04/24 09:00
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/08/24 13:35	10/11/24 06:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*35 - 166*	*10/08/24 13:35*	*10/11/24 06:04*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/08/24 13:35	10/11/24 06:04	1
Ethylbenzene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 06:04	1
Toluene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 06:04	1
Xylenes, Total	ND		0.099		mg/Kg		10/08/24 13:35	10/11/24 06:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/08/24 13:35*	*10/11/24 06:04*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/08/24 14:53	10/10/24 09:09	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/08/24 14:53	10/10/24 09:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*79*		*62 - 134*	*10/08/24 14:53*	*10/10/24 09:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		60		mg/Kg		10/08/24 16:13	10/09/24 18:13	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-27 0-3'

Date Collected: 10/04/24 09:30
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/08/24 13:35	10/11/24 06:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*35 - 166*	*10/08/24 13:35*	*10/11/24 06:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/08/24 13:35	10/11/24 06:27	1
Ethylbenzene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 06:27	1
Toluene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 06:27	1
Xylenes, Total	ND		0.097		mg/Kg		10/08/24 13:35	10/11/24 06:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/08/24 13:35*	*10/11/24 06:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/08/24 14:53	10/10/24 09:21	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/08/24 14:53	10/10/24 09:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*10/08/24 14:53*	*10/10/24 09:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/08/24 16:13	10/09/24 18:26	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: BS24-118 3'

Date Collected: 10/04/24 10:00
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/08/24 13:35	10/11/24 06:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/08/24 13:35*	*10/11/24 06:51*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/08/24 13:35	10/11/24 06:51	1
Ethylbenzene	ND		0.047		mg/Kg		10/08/24 13:35	10/11/24 06:51	1
Toluene	ND		0.047		mg/Kg		10/08/24 13:35	10/11/24 06:51	1
Xylenes, Total	ND		0.093		mg/Kg		10/08/24 13:35	10/11/24 06:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*	*10/08/24 13:35*	*10/11/24 06:51*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		10/08/24 14:53	10/10/24 09:34	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/08/24 14:53	10/10/24 09:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*75*		*62 - 134*	*10/08/24 14:53*	*10/10/24 09:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**96**		60		mg/Kg		10/08/24 16:13	10/09/24 18:38	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: BS24-119 3'

Date Collected: 10/04/24 10:30
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/08/24 13:35	10/11/24 07:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*10/08/24 13:35*	*10/11/24 07:15*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/08/24 13:35	10/11/24 07:15	1
Ethylbenzene	ND		0.047		mg/Kg		10/08/24 13:35	10/11/24 07:15	1
Toluene	ND		0.047		mg/Kg		10/08/24 13:35	10/11/24 07:15	1
Xylenes, Total	ND		0.095		mg/Kg		10/08/24 13:35	10/11/24 07:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/08/24 13:35*	*10/11/24 07:15*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		10/08/24 14:53	10/10/24 09:46	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/08/24 14:53	10/10/24 09:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*78*		*62 - 134*	*10/08/24 14:53*	*10/10/24 09:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		59		mg/Kg		10/08/24 16:13	10/09/24 18:51	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-28 0-3'

Date Collected: 10/04/24 11:00
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/08/24 13:35	10/11/24 07:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*10/08/24 13:35*	*10/11/24 07:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/08/24 13:35	10/11/24 07:38	1
Ethylbenzene	ND		0.047		mg/Kg		10/08/24 13:35	10/11/24 07:38	1
Toluene	ND		0.047		mg/Kg		10/08/24 13:35	10/11/24 07:38	1
Xylenes, Total	ND		0.094		mg/Kg		10/08/24 13:35	10/11/24 07:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/08/24 13:35*	*10/11/24 07:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/08/24 14:53	10/10/24 09:58	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/08/24 14:53	10/10/24 09:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*74*		*62 - 134*	*10/08/24 14:53*	*10/10/24 09:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**460**		60		mg/Kg		10/08/24 16:13	10/09/24 19:03	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-29 0-3'

Date Collected: 10/04/24 11:30
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/08/24 13:35	10/11/24 08:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/08/24 13:35*	*10/11/24 08:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/08/24 13:35	10/11/24 08:01	1
Ethylbenzene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 08:01	1
Toluene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 08:01	1
Xylenes, Total	ND		0.098		mg/Kg		10/08/24 13:35	10/11/24 08:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/08/24 13:35*	*10/11/24 08:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/08/24 14:53	10/10/24 10:23	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/08/24 14:53	10/10/24 10:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*78*		*62 - 134*	*10/08/24 14:53*	*10/10/24 10:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**500**		60		mg/Kg		10/08/24 16:13	10/09/24 19:15	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-30 0-3'

Date Collected: 10/04/24 12:00
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/08/24 13:35	10/11/24 08:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*35 - 166*	*10/08/24 13:35*	*10/11/24 08:25*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/08/24 13:35	10/11/24 08:25	1
Ethylbenzene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 08:25	1
Toluene	ND		0.049		mg/Kg		10/08/24 13:35	10/11/24 08:25	1
Xylenes, Total	ND		0.097		mg/Kg		10/08/24 13:35	10/11/24 08:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/08/24 13:35*	*10/11/24 08:25*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		10/08/24 14:53	10/10/24 10:35	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/08/24 14:53	10/10/24 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*10/08/24 14:53*	*10/10/24 10:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		60		mg/Kg		10/08/24 16:13	10/09/24 19:28	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-31 0-3'

Date Collected: 10/04/24 12:30
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/09/24 09:45	10/10/24 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/09/24 09:45*	*10/10/24 15:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/09/24 09:45	10/10/24 15:22	1
Ethylbenzene	ND		0.050		mg/Kg		10/09/24 09:45	10/10/24 15:22	1
Toluene	ND		0.050		mg/Kg		10/09/24 09:45	10/10/24 15:22	1
Xylenes, Total	ND		0.10		mg/Kg		10/09/24 09:45	10/10/24 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*10/09/24 09:45*	*10/10/24 15:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/09/24 14:31	10/09/24 22:32	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/09/24 14:31	10/09/24 22:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*80*		*62 - 134*	*10/09/24 14:31*	*10/09/24 22:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		10/10/24 11:20	10/10/24 16:21	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-33 0-3'

Date Collected: 10/04/24 13:00
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/09/24 09:45	10/10/24 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*10/09/24 09:45*	*10/10/24 15:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/09/24 09:45	10/10/24 15:44	1
Ethylbenzene	ND		0.048		mg/Kg		10/09/24 09:45	10/10/24 15:44	1
Toluene	ND		0.048		mg/Kg		10/09/24 09:45	10/10/24 15:44	1
Xylenes, Total	ND		0.095		mg/Kg		10/09/24 09:45	10/10/24 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/09/24 09:45*	*10/10/24 15:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		10/09/24 14:31	10/09/24 22:43	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		10/09/24 14:31	10/09/24 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*10/09/24 14:31*	*10/09/24 22:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/10/24 11:20	10/10/24 16:34	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Client Sample ID: WS24-34 0-3'

Date Collected: 10/04/24 13:30
Date Received: 10/08/24 07:55

Lab Sample ID: 885-13301-10

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/09/24 09:45	10/10/24 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/09/24 09:45*	*10/10/24 16:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/09/24 09:45	10/10/24 16:06	1
Ethylbenzene	ND		0.048		mg/Kg		10/09/24 09:45	10/10/24 16:06	1
Toluene	ND		0.048		mg/Kg		10/09/24 09:45	10/10/24 16:06	1
Xylenes, Total	ND		0.097		mg/Kg		10/09/24 09:45	10/10/24 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/09/24 09:45*	*10/10/24 16:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		10/09/24 14:31	10/09/24 22:54	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		10/09/24 14:31	10/09/24 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*79*		*62 - 134*	*10/09/24 14:31*	*10/09/24 22:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		10/10/24 11:20	10/10/24 17:11	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-13900/1-A
Matrix: Solid
Analysis Batch: 14083

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13900

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/08/24 13:35	10/10/24 22:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*10/08/24 13:35*	*10/10/24 22:37*	*1*

Lab Sample ID: LCS 885-13900/2-A
Matrix: Solid
Analysis Batch: 14083

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13900

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.0		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*219*		*35 - 166*

Lab Sample ID: MB 885-13947/1-A
Matrix: Solid
Analysis Batch: 14112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13947

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/09/24 09:45	10/10/24 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*10/09/24 09:45*	*10/10/24 11:45*	*1*

Lab Sample ID: LCS 885-13947/2-A
Matrix: Solid
Analysis Batch: 14112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13947

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	27.8		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*227*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-13900/1-A
Matrix: Solid
Analysis Batch: 14084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13900

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/08/24 13:35	10/10/24 22:37	1
Ethylbenzene	ND		0.050		mg/Kg		10/08/24 13:35	10/10/24 22:37	1
Toluene	ND		0.050		mg/Kg		10/08/24 13:35	10/10/24 22:37	1
Xylenes, Total	ND		0.10		mg/Kg		10/08/24 13:35	10/10/24 22:37	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-13900/1-A
Matrix: Solid
Analysis Batch: 14084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13900

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		48 - 145	10/08/24 13:35	10/10/24 22:37	1

Lab Sample ID: LCS 885-13900/3-A
Matrix: Solid
Analysis Batch: 14084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.943		mg/Kg		94	70 - 130
Ethylbenzene	1.00	0.962		mg/Kg		96	70 - 130
m,p-Xylene	2.00	1.92		mg/Kg		96	70 - 130
o-Xylene	1.00	0.954		mg/Kg		95	70 - 130
Toluene	1.00	0.925		mg/Kg		92	70 - 130
Xylenes, Total	3.00	2.87		mg/Kg		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		48 - 145

Lab Sample ID: MB 885-13947/1-A
Matrix: Solid
Analysis Batch: 14113

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13947

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		10/09/24 09:45	10/10/24 11:45	1
Ethylbenzene	ND		0.050	mg/Kg		10/09/24 09:45	10/10/24 11:45	1
Toluene	ND		0.050	mg/Kg		10/09/24 09:45	10/10/24 11:45	1
Xylenes, Total	ND		0.10	mg/Kg		10/09/24 09:45	10/10/24 11:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		48 - 145	10/09/24 09:45	10/10/24 11:45	1

Lab Sample ID: LCS 885-13947/3-A
Matrix: Solid
Analysis Batch: 14113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13947

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.980		mg/Kg		98	70 - 130
Ethylbenzene	1.00	1.00		mg/Kg		100	70 - 130
m,p-Xylene	2.00	1.98		mg/Kg		99	70 - 130
o-Xylene	1.00	0.979		mg/Kg		98	70 - 130
Toluene	1.00	0.991		mg/Kg		99	70 - 130
Xylenes, Total	3.00	2.96		mg/Kg		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		48 - 145

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-13911/1-A
Matrix: Solid
Analysis Batch: 13950

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13911

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/08/24 14:53	10/10/24 04:42	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/08/24 14:53	10/10/24 04:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/08/24 14:53*	*10/10/24 04:42*	*1*

Lab Sample ID: LCS 885-13911/2-A
Matrix: Solid
Analysis Batch: 13950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13911

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	40.2		mg/Kg		80	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*

Lab Sample ID: 885-13301-7 MS
Matrix: Solid
Analysis Batch: 13950

Client Sample ID: WS24-30 0-3'
Prep Type: Total/NA
Prep Batch: 13911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		48.8	42.1		mg/Kg		86	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*

Lab Sample ID: 885-13301-7 MSD
Matrix: Solid
Analysis Batch: 13950

Client Sample ID: WS24-30 0-3'
Prep Type: Total/NA
Prep Batch: 13911

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.7	35.9		mg/Kg		77	44 - 136	16	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*77*		*62 - 134*

Lab Sample ID: MB 885-13990/1-A
Matrix: Solid
Analysis Batch: 13961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13990

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/09/24 14:31	10/09/24 19:47	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/09/24 14:31	10/09/24 19:47	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-13990/1-A
Matrix: Solid
Analysis Batch: 13961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13990

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*80*		*62 - 134*	*10/09/24 14:31*	*10/09/24 19:47*	*1*

Lab Sample ID: LCS 885-13990/2-A
Matrix: Solid
Analysis Batch: 13961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	42.6		mg/Kg		85	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-13916/1-A
Matrix: Solid
Analysis Batch: 13985

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13916

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		10/08/24 16:13	10/09/24 10:35	1

Lab Sample ID: LCS 885-13916/2-A
Matrix: Solid
Analysis Batch: 13985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	29.2		mg/Kg		97	90 - 110

Lab Sample ID: MB 885-14063/1-A
Matrix: Solid
Analysis Batch: 14104

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14063

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		10/10/24 11:20	10/10/24 12:14	1

Lab Sample ID: LCS 885-14063/2-A
Matrix: Solid
Analysis Batch: 14104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	29.2		mg/Kg		97	90 - 110

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

GC VOA

Prep Batch: 13900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-1	WS24-13 0-3'	Total/NA	Solid	5030C	
885-13301-2	WS24-27 0-3'	Total/NA	Solid	5030C	
885-13301-3	BS24-118 3'	Total/NA	Solid	5030C	
885-13301-4	BS24-119 3'	Total/NA	Solid	5030C	
885-13301-5	WS24-28 0-3'	Total/NA	Solid	5030C	
885-13301-6	WS24-29 0-3'	Total/NA	Solid	5030C	
885-13301-7	WS24-30 0-3'	Total/NA	Solid	5030C	
MB 885-13900/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-13900/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-13900/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 13947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-8	WS24-31 0-3'	Total/NA	Solid	5030C	
885-13301-9	WS24-33 0-3'	Total/NA	Solid	5030C	
885-13301-10	WS24-34 0-3'	Total/NA	Solid	5030C	
MB 885-13947/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-13947/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-13947/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 14083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-1	WS24-13 0-3'	Total/NA	Solid	8015M/D	13900
885-13301-2	WS24-27 0-3'	Total/NA	Solid	8015M/D	13900
885-13301-3	BS24-118 3'	Total/NA	Solid	8015M/D	13900
885-13301-4	BS24-119 3'	Total/NA	Solid	8015M/D	13900
885-13301-5	WS24-28 0-3'	Total/NA	Solid	8015M/D	13900
885-13301-6	WS24-29 0-3'	Total/NA	Solid	8015M/D	13900
885-13301-7	WS24-30 0-3'	Total/NA	Solid	8015M/D	13900
MB 885-13900/1-A	Method Blank	Total/NA	Solid	8015M/D	13900
LCS 885-13900/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13900

Analysis Batch: 14084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-1	WS24-13 0-3'	Total/NA	Solid	8021B	13900
885-13301-2	WS24-27 0-3'	Total/NA	Solid	8021B	13900
885-13301-3	BS24-118 3'	Total/NA	Solid	8021B	13900
885-13301-4	BS24-119 3'	Total/NA	Solid	8021B	13900
885-13301-5	WS24-28 0-3'	Total/NA	Solid	8021B	13900
885-13301-6	WS24-29 0-3'	Total/NA	Solid	8021B	13900
885-13301-7	WS24-30 0-3'	Total/NA	Solid	8021B	13900
MB 885-13900/1-A	Method Blank	Total/NA	Solid	8021B	13900
LCS 885-13900/3-A	Lab Control Sample	Total/NA	Solid	8021B	13900

Analysis Batch: 14112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-8	WS24-31 0-3'	Total/NA	Solid	8015M/D	13947
885-13301-9	WS24-33 0-3'	Total/NA	Solid	8015M/D	13947
885-13301-10	WS24-34 0-3'	Total/NA	Solid	8015M/D	13947
MB 885-13947/1-A	Method Blank	Total/NA	Solid	8015M/D	13947
LCS 885-13947/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13947

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

GC VOA

Analysis Batch: 14113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-8	WS24-31 0-3'	Total/NA	Solid	8021B	13947
885-13301-9	WS24-33 0-3'	Total/NA	Solid	8021B	13947
885-13301-10	WS24-34 0-3'	Total/NA	Solid	8021B	13947
MB 885-13947/1-A	Method Blank	Total/NA	Solid	8021B	13947
LCS 885-13947/3-A	Lab Control Sample	Total/NA	Solid	8021B	13947

GC Semi VOA

Prep Batch: 13911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-1	WS24-13 0-3'	Total/NA	Solid	SHAKE	
885-13301-2	WS24-27 0-3'	Total/NA	Solid	SHAKE	
885-13301-3	BS24-118 3'	Total/NA	Solid	SHAKE	
885-13301-4	BS24-119 3'	Total/NA	Solid	SHAKE	
885-13301-5	WS24-28 0-3'	Total/NA	Solid	SHAKE	
885-13301-6	WS24-29 0-3'	Total/NA	Solid	SHAKE	
885-13301-7	WS24-30 0-3'	Total/NA	Solid	SHAKE	
MB 885-13911/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-13911/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-13301-7 MS	WS24-30 0-3'	Total/NA	Solid	SHAKE	
885-13301-7 MSD	WS24-30 0-3'	Total/NA	Solid	SHAKE	

Analysis Batch: 13950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-1	WS24-13 0-3'	Total/NA	Solid	8015M/D	13911
885-13301-2	WS24-27 0-3'	Total/NA	Solid	8015M/D	13911
885-13301-3	BS24-118 3'	Total/NA	Solid	8015M/D	13911
885-13301-4	BS24-119 3'	Total/NA	Solid	8015M/D	13911
885-13301-5	WS24-28 0-3'	Total/NA	Solid	8015M/D	13911
885-13301-6	WS24-29 0-3'	Total/NA	Solid	8015M/D	13911
885-13301-7	WS24-30 0-3'	Total/NA	Solid	8015M/D	13911
MB 885-13911/1-A	Method Blank	Total/NA	Solid	8015M/D	13911
LCS 885-13911/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13911
885-13301-7 MS	WS24-30 0-3'	Total/NA	Solid	8015M/D	13911
885-13301-7 MSD	WS24-30 0-3'	Total/NA	Solid	8015M/D	13911

Analysis Batch: 13961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-8	WS24-31 0-3'	Total/NA	Solid	8015M/D	13990
885-13301-9	WS24-33 0-3'	Total/NA	Solid	8015M/D	13990
885-13301-10	WS24-34 0-3'	Total/NA	Solid	8015M/D	13990
MB 885-13990/1-A	Method Blank	Total/NA	Solid	8015M/D	13990
LCS 885-13990/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	13990

Prep Batch: 13990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-8	WS24-31 0-3'	Total/NA	Solid	SHAKE	
885-13301-9	WS24-33 0-3'	Total/NA	Solid	SHAKE	
885-13301-10	WS24-34 0-3'	Total/NA	Solid	SHAKE	
MB 885-13990/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-13990/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13301-1

HPLC/IC

Prep Batch: 13916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-1	WS24-13 0-3'	Total/NA	Solid	300_Prep	
885-13301-2	WS24-27 0-3'	Total/NA	Solid	300_Prep	
885-13301-3	BS24-118 3'	Total/NA	Solid	300_Prep	
885-13301-4	BS24-119 3'	Total/NA	Solid	300_Prep	
885-13301-5	WS24-28 0-3'	Total/NA	Solid	300_Prep	
885-13301-6	WS24-29 0-3'	Total/NA	Solid	300_Prep	
885-13301-7	WS24-30 0-3'	Total/NA	Solid	300_Prep	
MB 885-13916/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-13916/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 13985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-1	WS24-13 0-3'	Total/NA	Solid	300.0	13916
885-13301-2	WS24-27 0-3'	Total/NA	Solid	300.0	13916
885-13301-3	BS24-118 3'	Total/NA	Solid	300.0	13916
885-13301-4	BS24-119 3'	Total/NA	Solid	300.0	13916
885-13301-5	WS24-28 0-3'	Total/NA	Solid	300.0	13916
885-13301-6	WS24-29 0-3'	Total/NA	Solid	300.0	13916
885-13301-7	WS24-30 0-3'	Total/NA	Solid	300.0	13916
MB 885-13916/1-A	Method Blank	Total/NA	Solid	300.0	13916
LCS 885-13916/2-A	Lab Control Sample	Total/NA	Solid	300.0	13916

Prep Batch: 14063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-8	WS24-31 0-3'	Total/NA	Solid	300_Prep	
885-13301-9	WS24-33 0-3'	Total/NA	Solid	300_Prep	
885-13301-10	WS24-34 0-3'	Total/NA	Solid	300_Prep	
MB 885-14063/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-14063/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 14104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13301-8	WS24-31 0-3'	Total/NA	Solid	300.0	14063
885-13301-9	WS24-33 0-3'	Total/NA	Solid	300.0	14063
885-13301-10	WS24-34 0-3'	Total/NA	Solid	300.0	14063
MB 885-14063/1-A	Method Blank	Total/NA	Solid	300.0	14063
LCS 885-14063/2-A	Lab Control Sample	Total/NA	Solid	300.0	14063

Lab Chronicle

Client: Vertex
Job ID: 885-13301-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-13 0-3'
Lab Sample ID: 885-13301-1
Date Collected: 10/04/24 09:00
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8015M/D		1	14083	JP	EET ALB	10/11/24 06:04
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8021B		1	14084	JP	EET ALB	10/11/24 06:04
Total/NA	Prep	SHAKE			13911	EM	EET ALB	10/08/24 14:53
Total/NA	Analysis	8015M/D		1	13950	EM	EET ALB	10/10/24 09:09
Total/NA	Prep	300_Prep			13916	EH	EET ALB	10/08/24 16:13
Total/NA	Analysis	300.0		20	13985	EH	EET ALB	10/09/24 18:13

Client Sample ID: WS24-27 0-3'
Lab Sample ID: 885-13301-2
Date Collected: 10/04/24 09:30
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8015M/D		1	14083	JP	EET ALB	10/11/24 06:27
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8021B		1	14084	JP	EET ALB	10/11/24 06:27
Total/NA	Prep	SHAKE			13911	EM	EET ALB	10/08/24 14:53
Total/NA	Analysis	8015M/D		1	13950	EM	EET ALB	10/10/24 09:21
Total/NA	Prep	300_Prep			13916	EH	EET ALB	10/08/24 16:13
Total/NA	Analysis	300.0		20	13985	EH	EET ALB	10/09/24 18:26

Client Sample ID: BS24-118 3'
Lab Sample ID: 885-13301-3
Date Collected: 10/04/24 10:00
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8015M/D		1	14083	JP	EET ALB	10/11/24 06:51
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8021B		1	14084	JP	EET ALB	10/11/24 06:51
Total/NA	Prep	SHAKE			13911	EM	EET ALB	10/08/24 14:53
Total/NA	Analysis	8015M/D		1	13950	EM	EET ALB	10/10/24 09:34
Total/NA	Prep	300_Prep			13916	EH	EET ALB	10/08/24 16:13
Total/NA	Analysis	300.0		20	13985	EH	EET ALB	10/09/24 18:38

Client Sample ID: BS24-119 3'
Lab Sample ID: 885-13301-4
Date Collected: 10/04/24 10:30
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8015M/D		1	14083	JP	EET ALB	10/11/24 07:15

Lab Chronicle

Client: Vertex
Job ID: 885-13301-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-119 3'
Lab Sample ID: 885-13301-4
Date Collected: 10/04/24 10:30
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8021B		1	14084	JP	EET ALB	10/11/24 07:15
Total/NA	Prep	SHAKE			13911	EM	EET ALB	10/08/24 14:53
Total/NA	Analysis	8015M/D		1	13950	EM	EET ALB	10/10/24 09:46
Total/NA	Prep	300_Prep			13916	EH	EET ALB	10/08/24 16:13
Total/NA	Analysis	300.0		20	13985	EH	EET ALB	10/09/24 18:51

Client Sample ID: WS24-28 0-3'
Lab Sample ID: 885-13301-5
Date Collected: 10/04/24 11:00
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8015M/D		1	14083	JP	EET ALB	10/11/24 07:38
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8021B		1	14084	JP	EET ALB	10/11/24 07:38
Total/NA	Prep	SHAKE			13911	EM	EET ALB	10/08/24 14:53
Total/NA	Analysis	8015M/D		1	13950	EM	EET ALB	10/10/24 09:58
Total/NA	Prep	300_Prep			13916	EH	EET ALB	10/08/24 16:13
Total/NA	Analysis	300.0		20	13985	EH	EET ALB	10/09/24 19:03

Client Sample ID: WS24-29 0-3'
Lab Sample ID: 885-13301-6
Date Collected: 10/04/24 11:30
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8015M/D		1	14083	JP	EET ALB	10/11/24 08:01
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8021B		1	14084	JP	EET ALB	10/11/24 08:01
Total/NA	Prep	SHAKE			13911	EM	EET ALB	10/08/24 14:53
Total/NA	Analysis	8015M/D		1	13950	EM	EET ALB	10/10/24 10:23
Total/NA	Prep	300_Prep			13916	EH	EET ALB	10/08/24 16:13
Total/NA	Analysis	300.0		20	13985	EH	EET ALB	10/09/24 19:15

Client Sample ID: WS24-30 0-3'
Lab Sample ID: 885-13301-7
Date Collected: 10/04/24 12:00
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8015M/D		1	14083	JP	EET ALB	10/11/24 08:25
Total/NA	Prep	5030C			13900	AT	EET ALB	10/08/24 13:35
Total/NA	Analysis	8021B		1	14084	JP	EET ALB	10/11/24 08:25

Lab Chronicle

Client: Vertex
Job ID: 885-13301-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-30 0-3'
Lab Sample ID: 885-13301-7
Date Collected: 10/04/24 12:00
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			13911	EM	EET ALB	10/08/24 14:53
Total/NA	Analysis	8015M/D		1	13950	EM	EET ALB	10/10/24 10:35
Total/NA	Prep	300_Prep			13916	EH	EET ALB	10/08/24 16:13
Total/NA	Analysis	300.0		20	13985	EH	EET ALB	10/09/24 19:28

Client Sample ID: WS24-31 0-3'
Lab Sample ID: 885-13301-8
Date Collected: 10/04/24 12:30
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13947	AT	EET ALB	10/09/24 09:45
Total/NA	Analysis	8015M/D		1	14112	AT	EET ALB	10/10/24 15:22
Total/NA	Prep	5030C			13947	AT	EET ALB	10/09/24 09:45
Total/NA	Analysis	8021B		1	14113	AT	EET ALB	10/10/24 15:22
Total/NA	Prep	SHAKE			13990	KR	EET ALB	10/09/24 14:31
Total/NA	Analysis	8015M/D		1	13961	KR	EET ALB	10/09/24 22:32
Total/NA	Prep	300_Prep			14063	EH	EET ALB	10/10/24 11:20
Total/NA	Analysis	300.0		20	14104	MA	EET ALB	10/10/24 16:21

Client Sample ID: WS24-33 0-3'
Lab Sample ID: 885-13301-9
Date Collected: 10/04/24 13:00
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13947	AT	EET ALB	10/09/24 09:45
Total/NA	Analysis	8015M/D		1	14112	AT	EET ALB	10/10/24 15:44
Total/NA	Prep	5030C			13947	AT	EET ALB	10/09/24 09:45
Total/NA	Analysis	8021B		1	14113	AT	EET ALB	10/10/24 15:44
Total/NA	Prep	SHAKE			13990	KR	EET ALB	10/09/24 14:31
Total/NA	Analysis	8015M/D		1	13961	KR	EET ALB	10/09/24 22:43
Total/NA	Prep	300_Prep			14063	EH	EET ALB	10/10/24 11:20
Total/NA	Analysis	300.0		20	14104	MA	EET ALB	10/10/24 16:34

Client Sample ID: WS24-34 0-3'
Lab Sample ID: 885-13301-10
Date Collected: 10/04/24 13:30
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			13947	AT	EET ALB	10/09/24 09:45
Total/NA	Analysis	8015M/D		1	14112	AT	EET ALB	10/10/24 16:06
Total/NA	Prep	5030C			13947	AT	EET ALB	10/09/24 09:45
Total/NA	Analysis	8021B		1	14113	AT	EET ALB	10/10/24 16:06
Total/NA	Prep	SHAKE			13990	KR	EET ALB	10/09/24 14:31
Total/NA	Analysis	8015M/D		1	13961	KR	EET ALB	10/09/24 22:54

Lab Chronicle

Client: Vertex
Job ID: 885-13301-1
Project/Site: Dawson Creek State #2

Client Sample ID: WS24-34 0-3'
Lab Sample ID: 885-13301-10

Date Collected: 10/04/24 13:30
Matrix: Solid
Date Received: 10/08/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			14063	EH	EET ALB	10/10/24 11:20
Total/NA	Analysis	300.0		20	14104	MA	EET ALB	10/10/24 17:11

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-13301-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (bill to mack)

Mailing Address: 3101 boyd dr.
Carlsbad, NM, 88220

Phone #: 575-725-5001

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☆ Rush 5 Day Rush

Project Name: Dawson Creek state #2

Project #: 24E-03166

Project Manager: Sally Carttar

SallyCarttar@Vertexresource.Com

Sampler: Katrina Taylor

On Ice: ☒ Yes ☐ No

# of Coolers: 1 (0G1)

Cooler Temp(including CF): 3.9+0.3=4.2 (°C)

HALL ENVIRONMENTAL ANALYSIS LABO
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 885-13301 COC
Tel. 505-345-3975 Fax 505-345-410

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/4	9:00	Soil	WS24-15 0-3'	4oz	ice	1										
	9:30		WS24-27 0-3'			2										
	10:00		BS24-118 3'			3										
	10:30		BS24-119 3'			4										
	11:00		WS24-28 0-3'			5										
	11:30		WS24-29 0-3'			6										
	12:00		WS24-30 0-3'			7										
	12:30		WS24-31 0-3'			8										
	13:00		WS24-33 0-3'			9										
	13:30		WS24-34 0-3'			10										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/4	5pm	Katrina Taylor			10/7/24	900
10/7/24	1900		SCM	COURIER	10/8/24	0755

Remarks: Direct bill to Mack Energy
ATTN: Matt Buckles (Mattbuckles@Mec.Com)
CC: SallyCarttar@vertexresource.Com for final report

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Received by OCD: 12/11/2024 12:00:41 AM

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-13301-1

Login Number: 13301 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/18/2024 3:48:47 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-13606-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
10/18/2024 3:48:47 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
Designee for
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-13606-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 8
QC Association Summary 10
Lab Chronicle 12
Certification Summary 13
Chain of Custody 14
Receipt Checklists 15

Definitions/Glossary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-13606-1
Project: Dawson Creek State #2

Job ID: 885-13606-1 Eurofins Albuquerque

Job Narrative
885-13606-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/11/2024 8:24 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C.

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

Client Sample ID: WS24-36 3-7'
Date Collected: 10/07/24 09:01
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13606-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/11/24 13:37	10/15/24 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*10/11/24 13:37*	*10/15/24 02:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/11/24 13:37	10/15/24 02:06	1
Ethylbenzene	ND		0.047		mg/Kg		10/11/24 13:37	10/15/24 02:06	1
Toluene	ND		0.047		mg/Kg		10/11/24 13:37	10/15/24 02:06	1
Xylenes, Total	ND		0.094		mg/Kg		10/11/24 13:37	10/15/24 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/11/24 13:37*	*10/15/24 02:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		10/14/24 11:51	10/14/24 16:01	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		10/14/24 11:51	10/14/24 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*10/14/24 11:51*	*10/14/24 16:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		60		mg/Kg		10/14/24 16:23	10/15/24 16:52	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

Client Sample ID: BS24-45 7'
Date Collected: 10/07/24 09:31
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13606-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/11/24 13:37	10/15/24 02:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*10/11/24 13:37*	*10/15/24 02:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 13:37	10/15/24 02:29	1
Ethylbenzene	ND		0.048		mg/Kg		10/11/24 13:37	10/15/24 02:29	1
Toluene	ND		0.048		mg/Kg		10/11/24 13:37	10/15/24 02:29	1
Xylenes, Total	ND		0.095		mg/Kg		10/11/24 13:37	10/15/24 02:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/11/24 13:37*	*10/15/24 02:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.4		mg/Kg		10/14/24 11:51	10/14/24 16:11	1
Motor Oil Range Organics [C28-C40]	ND		42		mg/Kg		10/14/24 11:51	10/14/24 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/14/24 11:51*	*10/14/24 16:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**760**		60		mg/Kg		10/14/24 16:23	10/15/24 17:25	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-14156/1-A
Matrix: Solid
Analysis Batch: 14298

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14156

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/11/24 13:37	10/14/24 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*35 - 166*	*10/11/24 13:37*	*10/14/24 12:00*	*1*

Lab Sample ID: LCS 885-14156/2-A
Matrix: Solid
Analysis Batch: 14298

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14156

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.1		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*218*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-14156/1-A
Matrix: Solid
Analysis Batch: 14301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14156

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/11/24 13:37	10/14/24 12:00	1
Ethylbenzene	ND		0.050		mg/Kg		10/11/24 13:37	10/14/24 12:00	1
Toluene	ND		0.050		mg/Kg		10/11/24 13:37	10/14/24 12:00	1
Xylenes, Total	ND		0.10		mg/Kg		10/11/24 13:37	10/14/24 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*10/11/24 13:37*	*10/14/24 12:00*	*1*

Lab Sample ID: LCS 885-14156/3-A
Matrix: Solid
Analysis Batch: 14301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14156

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.962		mg/Kg		96	70 - 130		
Ethylbenzene			1.00	0.975		mg/Kg		97	70 - 130		
m,p-Xylene			2.00	1.93		mg/Kg		97	70 - 130		
o-Xylene			1.00	0.948		mg/Kg		95	70 - 130		
Toluene			1.00	0.960		mg/Kg		96	70 - 130		
Xylenes, Total			3.00	2.88		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-14246/1-A
Matrix: Solid
Analysis Batch: 14195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14246

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/14/24 11:51	10/14/24 14:15	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/14/24 11:51	10/14/24 14:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*10/14/24 11:51*	*10/14/24 14:15*	*1*

Lab Sample ID: LCS 885-14246/2-A
Matrix: Solid
Analysis Batch: 14195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14246

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	36.8		mg/Kg		74	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-14269/1-A
Matrix: Solid
Analysis Batch: 14338

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14269

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/14/24 16:23	10/15/24 16:09	1

Lab Sample ID: LCS 885-14269/2-A
Matrix: Solid
Analysis Batch: 14338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14269

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	30.7		mg/Kg		102	90 - 110		

Lab Sample ID: 885-13606-1 MS
Matrix: Solid
Analysis Batch: 14338

Client Sample ID: WS24-36 3-7'
Prep Type: Total/NA
Prep Batch: 14269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	360		30.1	384	4	mg/Kg		88	50 - 150		

Lab Sample ID: 885-13606-1 MSD
Matrix: Solid
Analysis Batch: 14338

Client Sample ID: WS24-36 3-7'
Prep Type: Total/NA
Prep Batch: 14269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	360		30.1	401	4	mg/Kg		144	50 - 150	4	20

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

GC VOA

Prep Batch: 14156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13606-1	WS24-36 3-7'	Total/NA	Solid	5030C	
885-13606-2	BS24-45 7'	Total/NA	Solid	5030C	
MB 885-14156/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-14156/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-14156/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 14298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13606-1	WS24-36 3-7'	Total/NA	Solid	8015M/D	14156
885-13606-2	BS24-45 7'	Total/NA	Solid	8015M/D	14156
MB 885-14156/1-A	Method Blank	Total/NA	Solid	8015M/D	14156
LCS 885-14156/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14156

Analysis Batch: 14301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13606-1	WS24-36 3-7'	Total/NA	Solid	8021B	14156
885-13606-2	BS24-45 7'	Total/NA	Solid	8021B	14156
MB 885-14156/1-A	Method Blank	Total/NA	Solid	8021B	14156
LCS 885-14156/3-A	Lab Control Sample	Total/NA	Solid	8021B	14156

GC Semi VOA

Analysis Batch: 14195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13606-1	WS24-36 3-7'	Total/NA	Solid	8015M/D	14246
885-13606-2	BS24-45 7'	Total/NA	Solid	8015M/D	14246
MB 885-14246/1-A	Method Blank	Total/NA	Solid	8015M/D	14246
LCS 885-14246/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14246

Prep Batch: 14246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13606-1	WS24-36 3-7'	Total/NA	Solid	SHAKE	
885-13606-2	BS24-45 7'	Total/NA	Solid	SHAKE	
MB 885-14246/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-14246/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 14269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13606-1	WS24-36 3-7'	Total/NA	Solid	300_Prep	
885-13606-2	BS24-45 7'	Total/NA	Solid	300_Prep	
MB 885-14269/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-14269/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-13606-1 MS	WS24-36 3-7'	Total/NA	Solid	300_Prep	
885-13606-1 MSD	WS24-36 3-7'	Total/NA	Solid	300_Prep	

Analysis Batch: 14338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13606-1	WS24-36 3-7'	Total/NA	Solid	300.0	14269
885-13606-2	BS24-45 7'	Total/NA	Solid	300.0	14269
MB 885-14269/1-A	Method Blank	Total/NA	Solid	300.0	14269

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

HPLC/IC (Continued)

Analysis Batch: 14338 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-14269/2-A	Lab Control Sample	Total/NA	Solid	300.0	14269
885-13606-1 MS	WS24-36 3-7'	Total/NA	Solid	300.0	14269
885-13606-1 MSD	WS24-36 3-7'	Total/NA	Solid	300.0	14269

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13606-1

Client Sample ID: WS24-36 3-7'

Lab Sample ID: 885-13606-1
Matrix: Solid
Date Collected: 10/07/24 09:01
Date Received: 10/11/24 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14156	AT	EET ALB	10/11/24 13:37
Total/NA	Analysis	8015M/D		1	14298	JP	EET ALB	10/15/24 02:06
Total/NA	Prep	5030C			14156	AT	EET ALB	10/11/24 13:37
Total/NA	Analysis	8021B		1	14301	JP	EET ALB	10/15/24 02:06
Total/NA	Prep	SHAKE			14246	KR	EET ALB	10/14/24 11:51
Total/NA	Analysis	8015M/D		1	14195	KR	EET ALB	10/14/24 16:01
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 16:52

Client Sample ID: BS24-45 7'

Lab Sample ID: 885-13606-2
Matrix: Solid
Date Collected: 10/07/24 09:31
Date Received: 10/11/24 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14156	AT	EET ALB	10/11/24 13:37
Total/NA	Analysis	8015M/D		1	14298	JP	EET ALB	10/15/24 02:29
Total/NA	Prep	5030C			14156	AT	EET ALB	10/11/24 13:37
Total/NA	Analysis	8021B		1	14301	JP	EET ALB	10/15/24 02:29
Total/NA	Prep	SHAKE			14246	KR	EET ALB	10/14/24 11:51
Total/NA	Analysis	8015M/D		1	14195	KR	EET ALB	10/14/24 16:11
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 17:25

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex
Job ID: 885-13606-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (bill to Mack)

Mailing Address: 3101 boyd dr
88220, Carlsbad NM

Phone #: 575 725 5001

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 48hr

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar
SCarttar@vertexresource.com

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1 1/0g1

Cooler Temp(including CF): 4.2 +0.3 = 4.5 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM
Tel. 505-345-3975 Fax 505-345-4107

885-13606 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/7	9:01	Soil	WS24-36 3-7'	4oz	ICE	1										
↓	9:31	↓	BS24-45 7'	↓	↓	2										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/8	10am	Katrina Taylor			10/10/24	845
10/10/24	1400			courier	10/11/24	8:24

Remarks: Direct bill to mack Energy
ATTN: Matt Buckles (Matt.buckles@MEC.com)
CC: SCarttar@Vertexresource.com
& Katrina.Taylor@Vertexca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-13606-1

Login Number: 13606 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/18/2024 3:47:58 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-13626-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
10/18/2024 3:47:58 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
Designee for
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-13626-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 19
QC Association Summary 22
Lab Chronicle 25
Certification Summary 30
Chain of Custody 31
Receipt Checklists 33

Definitions/Glossary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-13626-1
Project: Dawson Creek State #2

Job ID: 885-13626-1 Eurofins Albuquerque

Job Narrative
885-13626-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/11/2024 8:24 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C.

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-32 0-3'
Date Collected: 10/07/24 09:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/11/24 16:48	10/14/24 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*35 - 166*	*10/11/24 16:48*	*10/14/24 12:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/11/24 16:48	10/14/24 12:28	1
Ethylbenzene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 12:28	1
Toluene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 12:28	1
Xylenes, Total	ND		0.10		mg/Kg		10/11/24 16:48	10/14/24 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*10/11/24 16:48*	*10/14/24 12:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		10/14/24 10:51	10/15/24 19:23	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		10/14/24 10:51	10/15/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*10/14/24 10:51*	*10/15/24 19:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68**		60		mg/Kg		10/14/24 16:23	10/15/24 17:36	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-37 0-4'
Date Collected: 10/07/24 09:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/11/24 16:48	10/14/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*10/11/24 16:48*	*10/14/24 13:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/11/24 16:48	10/14/24 13:33	1
Ethylbenzene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 13:33	1
Toluene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 13:33	1
Xylenes, Total	ND		0.10		mg/Kg		10/11/24 16:48	10/14/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/11/24 16:48*	*10/14/24 13:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**13**		9.4		mg/Kg		10/14/24 10:51	10/15/24 19:36	1
Motor Oil Range Organics [C28-C40]	**62**		47		mg/Kg		10/14/24 10:51	10/15/24 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*10/14/24 10:51*	*10/15/24 19:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**210**		60		mg/Kg		10/14/24 16:23	10/15/24 17:46	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-38 0-4'
Date Collected: 10/07/24 10:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/11/24 16:48	10/14/24 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*35 - 166*	*10/11/24 16:48*	*10/14/24 14:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 16:48	10/14/24 14:38	1
Ethylbenzene	ND		0.048		mg/Kg		10/11/24 16:48	10/14/24 14:38	1
Toluene	ND		0.048		mg/Kg		10/11/24 16:48	10/14/24 14:38	1
Xylenes, Total	ND		0.097		mg/Kg		10/11/24 16:48	10/14/24 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/11/24 16:48*	*10/14/24 14:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/14/24 10:51	10/15/24 19:49	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/14/24 10:51	10/15/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/14/24 10:51*	*10/15/24 19:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/14/24 16:23	10/15/24 17:57	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-39 0-4'
Date Collected: 10/07/24 10:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-4
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/11/24 16:48	10/14/24 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*10/11/24 16:48*	*10/14/24 15:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 16:48	10/14/24 15:00	1
Ethylbenzene	ND		0.049		mg/Kg		10/11/24 16:48	10/14/24 15:00	1
Toluene	ND		0.049		mg/Kg		10/11/24 16:48	10/14/24 15:00	1
Xylenes, Total	ND		0.097		mg/Kg		10/11/24 16:48	10/14/24 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/11/24 16:48*	*10/14/24 15:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**9.7**		9.4		mg/Kg		10/14/24 10:51	10/15/24 20:02	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/14/24 10:51	10/15/24 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*10/14/24 10:51*	*10/15/24 20:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		10/14/24 16:23	10/15/24 18:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-40 0-4'
Date Collected: 10/07/24 11:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-5
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/11/24 16:48	10/14/24 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*35 - 166*	*10/11/24 16:48*	*10/14/24 15:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/11/24 16:48	10/14/24 15:22	1
Ethylbenzene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 15:22	1
Toluene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 15:22	1
Xylenes, Total	ND		0.093		mg/Kg		10/11/24 16:48	10/14/24 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/11/24 16:48*	*10/14/24 15:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/14/24 10:51	10/15/24 20:15	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/14/24 10:51	10/15/24 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*10/14/24 10:51*	*10/15/24 20:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**220**		60		mg/Kg		10/14/24 16:23	10/15/24 18:19	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: BS24-121 4'
Date Collected: 10/07/24 11:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-6
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/11/24 16:48	10/14/24 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*35 - 166*	*10/11/24 16:48*	*10/14/24 15:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/11/24 16:48	10/14/24 15:44	1
Ethylbenzene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 15:44	1
Toluene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 15:44	1
Xylenes, Total	ND		0.10		mg/Kg		10/11/24 16:48	10/14/24 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/11/24 16:48*	*10/14/24 15:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/14/24 10:51	10/15/24 20:28	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/14/24 10:51	10/15/24 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*10/14/24 10:51*	*10/15/24 20:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/14/24 16:23	10/15/24 18:30	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: BS24-122 4'
Date Collected: 10/07/24 12:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-7
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/11/24 16:48	10/14/24 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*10/11/24 16:48*	*10/14/24 16:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 16:48	10/14/24 16:05	1
Ethylbenzene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 16:05	1
Toluene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 16:05	1
Xylenes, Total	ND		0.095		mg/Kg		10/11/24 16:48	10/14/24 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*10/11/24 16:48*	*10/14/24 16:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		10/14/24 10:51	10/15/24 20:41	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		10/14/24 10:51	10/15/24 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*10/14/24 10:51*	*10/15/24 20:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		60		mg/Kg		10/14/24 16:23	10/15/24 19:02	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: BS24-123 4'
Date Collected: 10/07/24 12:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-8
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		10/11/24 16:48	10/14/24 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*10/11/24 16:48*	*10/14/24 16:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/11/24 16:48	10/14/24 16:27	1
Ethylbenzene	ND		0.049		mg/Kg		10/11/24 16:48	10/14/24 16:27	1
Toluene	ND		0.049		mg/Kg		10/11/24 16:48	10/14/24 16:27	1
Xylenes, Total	ND		0.098		mg/Kg		10/11/24 16:48	10/14/24 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*10/11/24 16:48*	*10/14/24 16:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/14/24 10:51	10/15/24 20:54	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/14/24 10:51	10/15/24 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/14/24 10:51*	*10/15/24 20:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		60		mg/Kg		10/14/24 16:23	10/15/24 19:13	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-35 3-7'
Date Collected: 10/07/24 13:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-9
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		10/11/24 16:48	10/14/24 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*10/11/24 16:48*	*10/14/24 16:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/11/24 16:48	10/14/24 16:49	1
Ethylbenzene	ND		0.046		mg/Kg		10/11/24 16:48	10/14/24 16:49	1
Toluene	ND		0.046		mg/Kg		10/11/24 16:48	10/14/24 16:49	1
Xylenes, Total	ND		0.092		mg/Kg		10/11/24 16:48	10/14/24 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/11/24 16:48*	*10/14/24 16:49*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/14/24 10:51	10/15/24 21:07	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/14/24 10:51	10/15/24 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*10/14/24 10:51*	*10/15/24 21:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		60		mg/Kg		10/14/24 16:23	10/15/24 19:24	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-41 0-3'
Date Collected: 10/07/24 13:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-10
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/11/24 16:48	10/14/24 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*10/11/24 16:48*	*10/14/24 17:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 16:48	10/14/24 17:10	1
Ethylbenzene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 17:10	1
Toluene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 17:10	1
Xylenes, Total	ND		0.094		mg/Kg		10/11/24 16:48	10/14/24 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/11/24 16:48*	*10/14/24 17:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/14/24 10:51	10/15/24 21:33	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/14/24 10:51	10/15/24 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*72*		*62 - 134*	*10/14/24 10:51*	*10/15/24 21:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/14/24 16:23	10/15/24 19:57	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-42 0-3'
Date Collected: 10/07/24 14:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-11
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		10/11/24 16:48	10/14/24 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*10/11/24 16:48*	*10/14/24 17:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 16:48	10/14/24 17:54	1
Ethylbenzene	ND		0.048		mg/Kg		10/11/24 16:48	10/14/24 17:54	1
Toluene	ND		0.048		mg/Kg		10/11/24 16:48	10/14/24 17:54	1
Xylenes, Total	ND		0.096		mg/Kg		10/11/24 16:48	10/14/24 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/11/24 16:48*	*10/14/24 17:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		10/14/24 10:51	10/15/24 21:45	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/14/24 10:51	10/15/24 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*10/14/24 10:51*	*10/15/24 21:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		60		mg/Kg		10/14/24 16:23	10/15/24 20:08	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: BS24-124 3'
Date Collected: 10/07/24 14:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-12
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/11/24 16:48	10/14/24 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*10/11/24 16:48*	*10/14/24 18:15*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 16:48	10/14/24 18:15	1
Ethylbenzene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 18:15	1
Toluene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 18:15	1
Xylenes, Total	ND		0.094		mg/Kg		10/11/24 16:48	10/14/24 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*10/11/24 16:48*	*10/14/24 18:15*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/14/24 10:51	10/15/24 21:59	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/14/24 10:51	10/15/24 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*10/14/24 10:51*	*10/15/24 21:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		10/14/24 16:23	10/15/24 20:19	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: BS24-125 3'
Date Collected: 10/07/24 15:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-13
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		10/11/24 16:48	10/14/24 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*10/11/24 16:48*	*10/14/24 18:37*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/11/24 16:48	10/14/24 18:37	1
Ethylbenzene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 18:37	1
Toluene	ND		0.047		mg/Kg		10/11/24 16:48	10/14/24 18:37	1
Xylenes, Total	ND		0.094		mg/Kg		10/11/24 16:48	10/14/24 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/11/24 16:48*	*10/14/24 18:37*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/14/24 10:51	10/15/24 22:11	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/14/24 10:51	10/15/24 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*10/14/24 10:51*	*10/15/24 22:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62**		60		mg/Kg		10/14/24 16:23	10/15/24 20:29	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-14172/1-A
Matrix: Solid
Analysis Batch: 14293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14172

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/11/24 16:48	10/14/24 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*10/11/24 16:48*	*10/14/24 11:23*	*1*

Lab Sample ID: LCS 885-14172/2-A
Matrix: Solid
Analysis Batch: 14293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14172

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.0		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*218*		*35 - 166*

Lab Sample ID: 885-13626-1 MS
Matrix: Solid
Analysis Batch: 14293

Client Sample ID: WS24-32 0-3'
Prep Type: Total/NA
Prep Batch: 14172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		25.0	25.6		mg/Kg		103	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*219*		*35 - 166*

Lab Sample ID: 885-13626-1 MSD
Matrix: Solid
Analysis Batch: 14293

Client Sample ID: WS24-32 0-3'
Prep Type: Total/NA
Prep Batch: 14172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.8	26.1		mg/Kg		105	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*217*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-14172/1-A
Matrix: Solid
Analysis Batch: 14295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14172

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/11/24 16:48	10/14/24 11:23	1
Ethylbenzene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 11:23	1
Toluene	ND		0.050		mg/Kg		10/11/24 16:48	10/14/24 11:23	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-14172/1-A
Matrix: Solid
Analysis Batch: 14295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14172

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		10/11/24 16:48	10/14/24 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*10/11/24 16:48*	*10/14/24 11:23*	*1*

Lab Sample ID: LCS 885-14172/3-A
Matrix: Solid
Analysis Batch: 14295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14172

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.13		mg/Kg		113	70 - 130		
Ethylbenzene			1.00	1.12		mg/Kg		112	70 - 130		
m,p-Xylene			2.00	2.21		mg/Kg		110	70 - 130		
o-Xylene			1.00	1.09		mg/Kg		109	70 - 130		
Toluene			1.00	1.12		mg/Kg		112	70 - 130		
Xylenes, Total			3.00	3.30		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-13626-2 MS
Matrix: Solid
Analysis Batch: 14295

Client Sample ID: WS24-37 0-4'
Prep Type: Total/NA
Prep Batch: 14172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.993	1.11		mg/Kg		112	70 - 130		
Ethylbenzene	ND		0.993	1.10		mg/Kg		111	70 - 130		
m,p-Xylene	ND		1.99	2.19		mg/Kg		110	70 - 130		
o-Xylene	ND		0.993	1.08		mg/Kg		107	70 - 130		
Toluene	ND		0.993	1.10		mg/Kg		111	70 - 130		
Xylenes, Total	ND		2.98	3.27		mg/Kg		109	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*

Lab Sample ID: 885-13626-2 MSD
Matrix: Solid
Analysis Batch: 14295

Client Sample ID: WS24-37 0-4'
Prep Type: Total/NA
Prep Batch: 14172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.991	1.07		mg/Kg		108	70 - 130	3	20
Ethylbenzene	ND		0.991	1.08		mg/Kg		109	70 - 130	1	20
m,p-Xylene	ND		1.98	2.15		mg/Kg		108	70 - 130	2	20
o-Xylene	ND		0.991	1.07		mg/Kg		107	70 - 130	1	20
Toluene	ND		0.991	1.09		mg/Kg		110	70 - 130	1	20
Xylenes, Total	ND		2.97	3.21		mg/Kg		107	70 - 130	2	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-13626-2 MSD
Matrix: Solid
Analysis Batch: 14295

Client Sample ID: WS24-37 0-4'
Prep Type: Total/NA
Prep Batch: 14172

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		48 - 145

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-14235/1-A
Matrix: Solid
Analysis Batch: 14299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14235

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/14/24 10:51	10/15/24 17:16	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/14/24 10:51	10/15/24 17:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	93		62 - 134	10/14/24 10:51	10/15/24 17:16	1

Lab Sample ID: LCS 885-14235/2-A
Matrix: Solid
Analysis Batch: 14299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14235

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	40.5		mg/Kg		81	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	102		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-14269/1-A
Matrix: Solid
Analysis Batch: 14338

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14269

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/14/24 16:23	10/15/24 16:09	1

Lab Sample ID: LCS 885-14269/2-A
Matrix: Solid
Analysis Batch: 14338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14269

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	30.7		mg/Kg		102	90 - 110		

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

GC VOA

Prep Batch: 14172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-1	WS24-32 0-3'	Total/NA	Solid	5030C	
885-13626-2	WS24-37 0-4'	Total/NA	Solid	5030C	
885-13626-3	WS24-38 0-4'	Total/NA	Solid	5030C	
885-13626-4	WS24-39 0-4'	Total/NA	Solid	5030C	
885-13626-5	WS24-40 0-4'	Total/NA	Solid	5030C	
885-13626-6	BS24-121 4'	Total/NA	Solid	5030C	
885-13626-7	BS24-122 4'	Total/NA	Solid	5030C	
885-13626-8	BS24-123 4'	Total/NA	Solid	5030C	
885-13626-9	WS24-35 3-7'	Total/NA	Solid	5030C	
885-13626-10	WS24-41 0-3'	Total/NA	Solid	5030C	
885-13626-11	WS24-42 0-3'	Total/NA	Solid	5030C	
885-13626-12	BS24-124 3'	Total/NA	Solid	5030C	
885-13626-13	BS24-125 3'	Total/NA	Solid	5030C	
MB 885-14172/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-14172/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-14172/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-13626-1 MS	WS24-32 0-3'	Total/NA	Solid	5030C	
885-13626-1 MSD	WS24-32 0-3'	Total/NA	Solid	5030C	
885-13626-2 MS	WS24-37 0-4'	Total/NA	Solid	5030C	
885-13626-2 MSD	WS24-37 0-4'	Total/NA	Solid	5030C	

Analysis Batch: 14293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-1	WS24-32 0-3'	Total/NA	Solid	8015M/D	14172
885-13626-2	WS24-37 0-4'	Total/NA	Solid	8015M/D	14172
885-13626-3	WS24-38 0-4'	Total/NA	Solid	8015M/D	14172
885-13626-4	WS24-39 0-4'	Total/NA	Solid	8015M/D	14172
885-13626-5	WS24-40 0-4'	Total/NA	Solid	8015M/D	14172
885-13626-6	BS24-121 4'	Total/NA	Solid	8015M/D	14172
885-13626-7	BS24-122 4'	Total/NA	Solid	8015M/D	14172
885-13626-8	BS24-123 4'	Total/NA	Solid	8015M/D	14172
885-13626-9	WS24-35 3-7'	Total/NA	Solid	8015M/D	14172
885-13626-10	WS24-41 0-3'	Total/NA	Solid	8015M/D	14172
885-13626-11	WS24-42 0-3'	Total/NA	Solid	8015M/D	14172
885-13626-12	BS24-124 3'	Total/NA	Solid	8015M/D	14172
885-13626-13	BS24-125 3'	Total/NA	Solid	8015M/D	14172
MB 885-14172/1-A	Method Blank	Total/NA	Solid	8015M/D	14172
LCS 885-14172/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14172
885-13626-1 MS	WS24-32 0-3'	Total/NA	Solid	8015M/D	14172
885-13626-1 MSD	WS24-32 0-3'	Total/NA	Solid	8015M/D	14172

Analysis Batch: 14295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-1	WS24-32 0-3'	Total/NA	Solid	8021B	14172
885-13626-2	WS24-37 0-4'	Total/NA	Solid	8021B	14172
885-13626-3	WS24-38 0-4'	Total/NA	Solid	8021B	14172
885-13626-4	WS24-39 0-4'	Total/NA	Solid	8021B	14172
885-13626-5	WS24-40 0-4'	Total/NA	Solid	8021B	14172
885-13626-6	BS24-121 4'	Total/NA	Solid	8021B	14172
885-13626-7	BS24-122 4'	Total/NA	Solid	8021B	14172
885-13626-8	BS24-123 4'	Total/NA	Solid	8021B	14172

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

GC VOA (Continued)

Analysis Batch: 14295 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-9	WS24-35 3-7'	Total/NA	Solid	8021B	14172
885-13626-10	WS24-41 0-3'	Total/NA	Solid	8021B	14172
885-13626-11	WS24-42 0-3'	Total/NA	Solid	8021B	14172
885-13626-12	BS24-124 3'	Total/NA	Solid	8021B	14172
885-13626-13	BS24-125 3'	Total/NA	Solid	8021B	14172
MB 885-14172/1-A	Method Blank	Total/NA	Solid	8021B	14172
LCS 885-14172/3-A	Lab Control Sample	Total/NA	Solid	8021B	14172
885-13626-2 MS	WS24-37 0-4'	Total/NA	Solid	8021B	14172
885-13626-2 MSD	WS24-37 0-4'	Total/NA	Solid	8021B	14172

GC Semi VOA

Prep Batch: 14235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-1	WS24-32 0-3'	Total/NA	Solid	SHAKE	
885-13626-2	WS24-37 0-4'	Total/NA	Solid	SHAKE	
885-13626-3	WS24-38 0-4'	Total/NA	Solid	SHAKE	
885-13626-4	WS24-39 0-4'	Total/NA	Solid	SHAKE	
885-13626-5	WS24-40 0-4'	Total/NA	Solid	SHAKE	
885-13626-6	BS24-121 4'	Total/NA	Solid	SHAKE	
885-13626-7	BS24-122 4'	Total/NA	Solid	SHAKE	
885-13626-8	BS24-123 4'	Total/NA	Solid	SHAKE	
885-13626-9	WS24-35 3-7'	Total/NA	Solid	SHAKE	
885-13626-10	WS24-41 0-3'	Total/NA	Solid	SHAKE	
885-13626-11	WS24-42 0-3'	Total/NA	Solid	SHAKE	
885-13626-12	BS24-124 3'	Total/NA	Solid	SHAKE	
885-13626-13	BS24-125 3'	Total/NA	Solid	SHAKE	
MB 885-14235/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-14235/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 14299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-1	WS24-32 0-3'	Total/NA	Solid	8015M/D	14235
885-13626-2	WS24-37 0-4'	Total/NA	Solid	8015M/D	14235
885-13626-3	WS24-38 0-4'	Total/NA	Solid	8015M/D	14235
885-13626-4	WS24-39 0-4'	Total/NA	Solid	8015M/D	14235
885-13626-5	WS24-40 0-4'	Total/NA	Solid	8015M/D	14235
885-13626-6	BS24-121 4'	Total/NA	Solid	8015M/D	14235
885-13626-7	BS24-122 4'	Total/NA	Solid	8015M/D	14235
885-13626-8	BS24-123 4'	Total/NA	Solid	8015M/D	14235
885-13626-9	WS24-35 3-7'	Total/NA	Solid	8015M/D	14235
885-13626-10	WS24-41 0-3'	Total/NA	Solid	8015M/D	14235
885-13626-11	WS24-42 0-3'	Total/NA	Solid	8015M/D	14235
885-13626-12	BS24-124 3'	Total/NA	Solid	8015M/D	14235
885-13626-13	BS24-125 3'	Total/NA	Solid	8015M/D	14235
MB 885-14235/1-A	Method Blank	Total/NA	Solid	8015M/D	14235
LCS 885-14235/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14235

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

HPLC/IC

Prep Batch: 14269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-1	WS24-32 0-3'	Total/NA	Solid	300_Prep	
885-13626-2	WS24-37 0-4'	Total/NA	Solid	300_Prep	
885-13626-3	WS24-38 0-4'	Total/NA	Solid	300_Prep	
885-13626-4	WS24-39 0-4'	Total/NA	Solid	300_Prep	
885-13626-5	WS24-40 0-4'	Total/NA	Solid	300_Prep	
885-13626-6	BS24-121 4'	Total/NA	Solid	300_Prep	
885-13626-7	BS24-122 4'	Total/NA	Solid	300_Prep	
885-13626-8	BS24-123 4'	Total/NA	Solid	300_Prep	
885-13626-9	WS24-35 3-7'	Total/NA	Solid	300_Prep	
885-13626-10	WS24-41 0-3'	Total/NA	Solid	300_Prep	
885-13626-11	WS24-42 0-3'	Total/NA	Solid	300_Prep	
885-13626-12	BS24-124 3'	Total/NA	Solid	300_Prep	
885-13626-13	BS24-125 3'	Total/NA	Solid	300_Prep	
MB 885-14269/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-14269/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 14338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13626-1	WS24-32 0-3'	Total/NA	Solid	300.0	14269
885-13626-2	WS24-37 0-4'	Total/NA	Solid	300.0	14269
885-13626-3	WS24-38 0-4'	Total/NA	Solid	300.0	14269
885-13626-4	WS24-39 0-4'	Total/NA	Solid	300.0	14269
885-13626-5	WS24-40 0-4'	Total/NA	Solid	300.0	14269
885-13626-6	BS24-121 4'	Total/NA	Solid	300.0	14269
885-13626-7	BS24-122 4'	Total/NA	Solid	300.0	14269
885-13626-8	BS24-123 4'	Total/NA	Solid	300.0	14269
885-13626-9	WS24-35 3-7'	Total/NA	Solid	300.0	14269
885-13626-10	WS24-41 0-3'	Total/NA	Solid	300.0	14269
885-13626-11	WS24-42 0-3'	Total/NA	Solid	300.0	14269
885-13626-12	BS24-124 3'	Total/NA	Solid	300.0	14269
885-13626-13	BS24-125 3'	Total/NA	Solid	300.0	14269
MB 885-14269/1-A	Method Blank	Total/NA	Solid	300.0	14269
LCS 885-14269/2-A	Lab Control Sample	Total/NA	Solid	300.0	14269

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-32 0-3'
Date Collected: 10/07/24 09:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 12:28
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 12:28
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 19:23
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 17:36

Client Sample ID: WS24-37 0-4'
Date Collected: 10/07/24 09:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 13:33
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 13:33
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 19:36
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 17:46

Client Sample ID: WS24-38 0-4'
Date Collected: 10/07/24 10:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 14:38
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 14:38
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 19:49
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 17:57

Client Sample ID: WS24-39 0-4'
Date Collected: 10/07/24 10:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 15:00

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-39 0-4'
Date Collected: 10/07/24 10:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 15:00
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 20:02
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 18:08

Client Sample ID: WS24-40 0-4'
Date Collected: 10/07/24 11:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 15:22
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 15:22
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 20:15
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 18:19

Client Sample ID: BS24-121 4'
Date Collected: 10/07/24 11:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 15:44
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 15:44
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 20:28
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 18:30

Client Sample ID: BS24-122 4'
Date Collected: 10/07/24 12:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 16:05
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 16:05

Lab Chronicle

Client: Vertex
Job ID: 885-13626-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-122 4'
Lab Sample ID: 885-13626-7
Date Collected: 10/07/24 12:00
Matrix: Solid
Date Received: 10/11/24 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 20:41
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 19:02

Client Sample ID: BS24-123 4'
Lab Sample ID: 885-13626-8
Date Collected: 10/07/24 12:30
Matrix: Solid
Date Received: 10/11/24 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 16:27
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 16:27
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 20:54
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 19:13

Client Sample ID: WS24-35 3-7'
Lab Sample ID: 885-13626-9
Date Collected: 10/07/24 13:00
Matrix: Solid
Date Received: 10/11/24 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 16:49
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 16:49
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 21:07
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 19:24

Client Sample ID: WS24-41 0-3'
Lab Sample ID: 885-13626-10
Date Collected: 10/07/24 13:30
Matrix: Solid
Date Received: 10/11/24 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 17:10
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 17:10
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 21:33

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Client Sample ID: WS24-41 0-3'
Date Collected: 10/07/24 13:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 19:57

Client Sample ID: WS24-42 0-3'
Date Collected: 10/07/24 14:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 17:54
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 17:54
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 21:45
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 20:08

Client Sample ID: BS24-124 3'
Date Collected: 10/07/24 14:30
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 18:15
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 18:15
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 21:59
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 20:19

Client Sample ID: BS24-125 3'
Date Collected: 10/07/24 15:00
Date Received: 10/11/24 08:24

Lab Sample ID: 885-13626-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8015M/D		1	14293	AT	EET ALB	10/14/24 18:37
Total/NA	Prep	5030C			14172	JP	EET ALB	10/11/24 16:48
Total/NA	Analysis	8021B		1	14295	AT	EET ALB	10/14/24 18:37
Total/NA	Prep	SHAKE			14235	EM	EET ALB	10/14/24 10:51
Total/NA	Analysis	8015M/D		1	14299	EM	EET ALB	10/15/24 22:11
Total/NA	Prep	300_Prep			14269	EH	EET ALB	10/14/24 16:23
Total/NA	Analysis	300.0		20	14338	EH	EET ALB	10/15/24 20:29

Lab Chronicle

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-13626-1

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex
Job ID: 885-13626-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

1/2

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABOR

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 871(

Tel. 505-345-3975 Fax 505-345-4107

885-13626 COC

Client: ~~Kyle~~ Vertex (bill to Mack)

Mailing Address: 3101 boyd dr. 88220, Carlsbad NM

Phone #: 575 725 5001

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☒ Rush 5 Day

Project Name: Dawson creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar Scarttar@vertexresource.com

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1 VOA

Cooler Temp(including CF): 4.2+0.3=4.5 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10/7	9:00	Soil	WS24-32 0-3'	4oz	ICE	1
	9:30		WS24-37 0-4'			2
	10:00		WS24-38 0-4'			3
	10:30		WS24-39 0-4'			4
	11:00		WS24-40 0-4'			5
	11:30		BS24-121 4'			6
	12:00		BS24-122 4'			7
	12:30		BS24-123 4'			8
	13:00		WS24-35 3-7'			9
	13:30		WS24-41 0-3'			10
	14:00		WS24-42 0-3'			11
	14:30		BS24-124 3'			12

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/8	10am	Katrina Taylor			10/10/24	845
10/10/24	1900			courier	10/11/24	8:24

Remarks: direct bill to mack Energy
ATTN: Matt Buckles (Matt Buckles@Mec.Com
CC: Sally Carttar (SCarttar@vertexresource.c
& Katrina.Taylor@Vertex.Ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 2/19/2025 2:59:10 PM

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Client: Vertex (bill to Mack)

Mailing Address: 3101 boyd dr
88220, Carlsbad, NM

Phone #: 575 725 5001

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush 5 DAY

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Cartar

SCartar@vertexresource.com

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1 VOA

Cooler Temp(including CF): 4.2+0.7=4.5 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10/7	15:00		BS24-125 3'	4oz	ICE	13

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
✓	✓					✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/8	10am	Katrina Taylor			10/10/24	845
10/10/24	1900			courier	10/11/24	8:24

Remarks: Direct bill to Mack Energy
ATTN: Matt Buckles (matt.buckles@mec.com)
CC: SCartar@vertexresource.com
& Katrina.Taylor@Vertex.Ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Received by OCD: 12/11/2024 12:00:41 AM

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-13626-1

Login Number: 13626 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/29/2024 11:21:32 AM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-14119-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
10/29/2024 11:21:32 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-14119-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 8
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Chain of Custody 15
Receipt Checklists 16

Released to Imaging: 2/19/2025 2:59:10 PM

Definitions/Glossary

Client: Vertex Job ID: 885-14119-1
Project/Site: Dawson Creek State #2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-14119-1
Project: Dawson Creek State #2

Job ID: 885-14119-1 Eurofins Albuquerque

Job Narrative
885-14119-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/23/2024 7:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-14119-1

Client Sample ID: BS24-120 5'

Date Collected: 10/21/24 09:00
Date Received: 10/23/24 07:45

Lab Sample ID: 885-14119-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/23/24 15:05	10/24/24 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*35 - 166*	*10/23/24 15:05*	*10/24/24 19:43*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/23/24 15:05	10/24/24 19:43	1
Ethylbenzene	ND		0.050		mg/Kg		10/23/24 15:05	10/24/24 19:43	1
Toluene	ND		0.050		mg/Kg		10/23/24 15:05	10/24/24 19:43	1
Xylenes, Total	ND		0.10		mg/Kg		10/23/24 15:05	10/24/24 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/23/24 15:05*	*10/24/24 19:43*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/24/24 12:30	10/24/24 16:30	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/24/24 12:30	10/24/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*10/24/24 12:30*	*10/24/24 16:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		60		mg/Kg		10/26/24 10:20	10/28/24 12:19	20

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-14119-1

Client Sample ID: BS24-45 9'

Date Collected: 10/21/24 09:30
Date Received: 10/23/24 07:45

Lab Sample ID: 885-14119-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/23/24 15:05	10/24/24 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*35 - 166*	*10/23/24 15:05*	*10/24/24 20:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/23/24 15:05	10/24/24 20:48	1
Ethylbenzene	ND		0.050		mg/Kg		10/23/24 15:05	10/24/24 20:48	1
Toluene	ND		0.050		mg/Kg		10/23/24 15:05	10/24/24 20:48	1
Xylenes, Total	ND		0.099		mg/Kg		10/23/24 15:05	10/24/24 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/23/24 15:05*	*10/24/24 20:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		10/24/24 12:30	10/24/24 16:43	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/24/24 12:30	10/24/24 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*10/24/24 12:30*	*10/24/24 16:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**460**		60		mg/Kg		10/26/24 10:20	10/28/24 12:29	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-14119-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-14800/1-A
Matrix: Solid
Analysis Batch: 14923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14800

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		10/23/24 15:05	10/24/24 19:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*35 - 166*	*10/23/24 15:05*	*10/24/24 19:21*	*1*

Lab Sample ID: LCS 885-14800/2-A
Matrix: Solid
Analysis Batch: 14923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14800

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.8		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*239*		*35 - 166*

Lab Sample ID: 885-14119-1 MS
Matrix: Solid
Analysis Batch: 14923

Client Sample ID: BS24-120 5'
Prep Type: Total/NA
Prep Batch: 14800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.8	28.5		mg/Kg		115	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*233*		*35 - 166*

Lab Sample ID: 885-14119-1 MSD
Matrix: Solid
Analysis Batch: 14923

Client Sample ID: BS24-120 5'
Prep Type: Total/NA
Prep Batch: 14800

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.8	28.2		mg/Kg		114	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*236*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-14800/1-A
Matrix: Solid
Analysis Batch: 14927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14800

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/23/24 15:05	10/24/24 19:21	1
Ethylbenzene	ND		0.050		mg/Kg		10/23/24 15:05	10/24/24 19:21	1
Toluene	ND		0.050		mg/Kg		10/23/24 15:05	10/24/24 19:21	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-14119-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-14800/1-A
Matrix: Solid
Analysis Batch: 14927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14800

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		10/23/24 15:05	10/24/24 19:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/23/24 15:05*	*10/24/24 19:21*	*1*

Lab Sample ID: LCS 885-14800/3-A
Matrix: Solid
Analysis Batch: 14927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14800

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.01		mg/Kg		101	70 - 130		
Ethylbenzene			1.00	1.02		mg/Kg		102	70 - 130		
m,p-Xylene			2.00	2.02		mg/Kg		101	70 - 130		
o-Xylene			1.00	1.01		mg/Kg		101	70 - 130		
Toluene			1.00	1.01		mg/Kg		101	70 - 130		
Xylenes, Total			3.00	3.02		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*

Lab Sample ID: 885-14119-2 MS
Matrix: Solid
Analysis Batch: 14927

Client Sample ID: BS24-45 9'
Prep Type: Total/NA
Prep Batch: 14800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.999	1.04		mg/Kg		104	70 - 130		
Ethylbenzene	ND		0.999	1.06		mg/Kg		106	70 - 130		
m,p-Xylene	ND		2.00	2.09		mg/Kg		104	70 - 130		
o-Xylene	ND		0.999	1.03		mg/Kg		103	70 - 130		
Toluene	ND		0.999	1.05		mg/Kg		105	70 - 130		
Xylenes, Total	ND		3.00	3.12		mg/Kg		104	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*

Lab Sample ID: 885-14119-2 MSD
Matrix: Solid
Analysis Batch: 14927

Client Sample ID: BS24-45 9'
Prep Type: Total/NA
Prep Batch: 14800

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.999	1.01		mg/Kg		102	70 - 130	3	20
Ethylbenzene	ND		0.999	1.01		mg/Kg		101	70 - 130	5	20
m,p-Xylene	ND		2.00	2.00		mg/Kg		100	70 - 130	4	20
o-Xylene	ND		0.999	0.994		mg/Kg		99	70 - 130	4	20
Toluene	ND		0.999	1.01		mg/Kg		101	70 - 130	4	20
Xylenes, Total	ND		3.00	2.99		mg/Kg		100	70 - 130	4	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-14119-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-14119-2 MSD
Matrix: Solid
Analysis Batch: 14927

Client Sample ID: BS24-45 9'
Prep Type: Total/NA
Prep Batch: 14800

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-14855/1-A
Matrix: Solid
Analysis Batch: 14841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14855

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/24/24 12:30	10/24/24 16:05	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/24/24 12:30	10/24/24 16:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*10/24/24 12:30*	*10/24/24 16:05*	*1*

Lab Sample ID: LCS 885-14855/2-A
Matrix: Solid
Analysis Batch: 14841

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14855

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	42.4		mg/Kg		85	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-14965/1-A
Matrix: Solid
Analysis Batch: 14991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14965

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/26/24 10:20	10/28/24 11:29	1

Lab Sample ID: LCS 885-14965/2-A
Matrix: Solid
Analysis Batch: 14991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14965

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.1		mg/Kg		94	90 - 110		

QC Association Summary

Client: Vertex
Job ID: 885-14119-1
Project/Site: Dawson Creek State #2

GC VOA

Prep Batch: 14800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14119-1	BS24-120 5'	Total/NA	Solid	5030C	
885-14119-2	BS24-45 9'	Total/NA	Solid	5030C	
MB 885-14800/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-14800/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-14800/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-14119-1 MS	BS24-120 5'	Total/NA	Solid	5030C	
885-14119-1 MSD	BS24-120 5'	Total/NA	Solid	5030C	
885-14119-2 MS	BS24-45 9'	Total/NA	Solid	5030C	
885-14119-2 MSD	BS24-45 9'	Total/NA	Solid	5030C	

Analysis Batch: 14923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14119-1	BS24-120 5'	Total/NA	Solid	8015M/D	14800
885-14119-2	BS24-45 9'	Total/NA	Solid	8015M/D	14800
MB 885-14800/1-A	Method Blank	Total/NA	Solid	8015M/D	14800
LCS 885-14800/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14800
885-14119-1 MS	BS24-120 5'	Total/NA	Solid	8015M/D	14800
885-14119-1 MSD	BS24-120 5'	Total/NA	Solid	8015M/D	14800

Analysis Batch: 14927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14119-1	BS24-120 5'	Total/NA	Solid	8021B	14800
885-14119-2	BS24-45 9'	Total/NA	Solid	8021B	14800
MB 885-14800/1-A	Method Blank	Total/NA	Solid	8021B	14800
LCS 885-14800/3-A	Lab Control Sample	Total/NA	Solid	8021B	14800
885-14119-2 MS	BS24-45 9'	Total/NA	Solid	8021B	14800
885-14119-2 MSD	BS24-45 9'	Total/NA	Solid	8021B	14800

GC Semi VOA

Analysis Batch: 14841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14119-1	BS24-120 5'	Total/NA	Solid	8015M/D	14855
885-14119-2	BS24-45 9'	Total/NA	Solid	8015M/D	14855
MB 885-14855/1-A	Method Blank	Total/NA	Solid	8015M/D	14855
LCS 885-14855/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14855

Prep Batch: 14855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14119-1	BS24-120 5'	Total/NA	Solid	SHAKE	
885-14119-2	BS24-45 9'	Total/NA	Solid	SHAKE	
MB 885-14855/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-14855/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 14965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14119-1	BS24-120 5'	Total/NA	Solid	300_Prep	
885-14119-2	BS24-45 9'	Total/NA	Solid	300_Prep	
MB 885-14965/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-14965/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-14119-1

HPLC/IC

Analysis Batch: 14991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14119-1	BS24-120 5'	Total/NA	Solid	300.0	14965
885-14119-2	BS24-45 9'	Total/NA	Solid	300.0	14965
MB 885-14965/1-A	Method Blank	Total/NA	Solid	300.0	14965
LCS 885-14965/2-A	Lab Control Sample	Total/NA	Solid	300.0	14965

Lab Chronicle

Client: Vertex
Job ID: 885-14119-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-120 5'
Lab Sample ID: 885-14119-1
Date Collected: 10/21/24 09:00
Matrix: Solid
Date Received: 10/23/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14800	AT	EET ALB	10/23/24 15:05
Total/NA	Analysis	8015M/D		1	14923	AT	EET ALB	10/24/24 19:43
Total/NA	Prep	5030C			14800	AT	EET ALB	10/23/24 15:05
Total/NA	Analysis	8021B		1	14927	AT	EET ALB	10/24/24 19:43
Total/NA	Prep	SHAKE			14855	EM	EET ALB	10/24/24 12:30
Total/NA	Analysis	8015M/D		1	14841	EM	EET ALB	10/24/24 16:30
Total/NA	Prep	300_Prep			14965	JT	EET ALB	10/26/24 10:20
Total/NA	Analysis	300.0		20	14991	RC	EET ALB	10/28/24 12:19

Client Sample ID: BS24-45 9'
Lab Sample ID: 885-14119-2
Date Collected: 10/21/24 09:30
Matrix: Solid
Date Received: 10/23/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14800	AT	EET ALB	10/23/24 15:05
Total/NA	Analysis	8015M/D		1	14923	AT	EET ALB	10/24/24 20:48
Total/NA	Prep	5030C			14800	AT	EET ALB	10/23/24 15:05
Total/NA	Analysis	8021B		1	14927	AT	EET ALB	10/24/24 20:48
Total/NA	Prep	SHAKE			14855	EM	EET ALB	10/24/24 12:30
Total/NA	Analysis	8015M/D		1	14841	EM	EET ALB	10/24/24 16:43
Total/NA	Prep	300_Prep			14965	JT	EET ALB	10/26/24 10:20
Total/NA	Analysis	300.0		20	14991	RC	EET ALB	10/28/24 12:29

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-14119-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Vertex (bill to mack)

Mailing Address: 3101 Boyd dr

Carlsbad, NM, 88220

Phone #: 575-725-5001

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush 48 hrs

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: Sally Carttar

SCarttar@vertex.ca

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 1 MO30

Cooler Temp(including CF): 2.6+0.1=2.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

885-14119 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/21	9:00	Soil	BH24-120 5'	4oz	ICE	1	✓	✓					✓			
10/21	9:30	↓	BH24-45 9'	↓	↓	2										

Date	Time	Relinquished by	Received by	Via	Date	Time
10/21	5:00	Katrina Taylor			10/22/24	940
10/22/24	1940		SCM	COURIER	10/23/24	0745

Remarks:

Direct bill to Mack Energy

ATTN: Matt Buckles (matt buckles@mec

CC: SCarttar@vertexresource.com

& Katrina.Taylor@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-14119-1

Login Number: 14119 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 11/12/2024 4:28:32 PM

JOB DESCRIPTION

Dawson Creek State #2

JOB NUMBER

885-15020-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 2/19/2025 2:39:10 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
11/12/2024 4:28:32 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Dawson Creek State #2

Laboratory Job ID: 885-15020-1

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
QC Sample Results 7
QC Association Summary 10
Lab Chronicle 11
Certification Summary 12
Chain of Custody 13
Receipt Checklists 14

Definitions/Glossary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-15020-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-15020-1
Project: Dawson Creek State #2

Job ID: 885-15020-1 Eurofins Albuquerque

Job Narrative
885-15020-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 11/9/2024 8:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C.

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-15020-1

Client Sample ID: BS24-75 3'

Date Collected: 11/06/24 09:00
Date Received: 11/09/24 08:20

Lab Sample ID: 885-15020-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		11/11/24 14:40	11/12/24 11:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*11/11/24 14:40*	*11/12/24 11:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		11/11/24 14:40	11/12/24 11:09	1
Ethylbenzene	ND		0.050		mg/Kg		11/11/24 14:40	11/12/24 11:09	1
Toluene	ND		0.050		mg/Kg		11/11/24 14:40	11/12/24 11:09	1
Xylenes, Total	ND		0.10		mg/Kg		11/11/24 14:40	11/12/24 11:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*11/11/24 14:40*	*11/12/24 11:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		11/11/24 08:37	11/11/24 10:59	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		11/11/24 08:37	11/11/24 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*11/11/24 08:37*	*11/11/24 10:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		11/09/24 09:19	11/09/24 13:38	20

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-15020-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-15720/1-A
Matrix: Solid
Analysis Batch: 15756

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15720

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		11/11/24 14:40	11/12/24 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*11/11/24 14:40*	*11/12/24 10:45*	*1*

Lab Sample ID: LCS 885-15720/2-A
Matrix: Solid
Analysis Batch: 15756

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15720

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.3		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*		*35 - 166*

Lab Sample ID: 885-15020-1 MS
Matrix: Solid
Analysis Batch: 15756

Client Sample ID: BS24-75 3'
Prep Type: Total/NA
Prep Batch: 15720

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		25.0	27.9		mg/Kg		112	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*220*		*35 - 166*

Lab Sample ID: 885-15020-1 MSD
Matrix: Solid
Analysis Batch: 15756

Client Sample ID: BS24-75 3'
Prep Type: Total/NA
Prep Batch: 15720

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.9	26.1		mg/Kg		105	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*211*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-15720/1-A
Matrix: Solid
Analysis Batch: 15757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15720

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		11/11/24 14:40	11/12/24 10:45	1
Ethylbenzene	ND		0.050		mg/Kg		11/11/24 14:40	11/12/24 10:45	1
Toluene	ND		0.050		mg/Kg		11/11/24 14:40	11/12/24 10:45	1

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-15020-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-15720/1-A
Matrix: Solid
Analysis Batch: 15757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15720

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		11/11/24 14:40	11/12/24 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*11/11/24 14:40*	*11/12/24 10:45*	*1*

Lab Sample ID: LCS 885-15720/3-A
Matrix: Solid
Analysis Batch: 15757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15720

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.03		mg/Kg		103	70 - 130		
Ethylbenzene			1.00	1.06		mg/Kg		106	70 - 130		
m,p-Xylene			2.00	2.07		mg/Kg		104	70 - 130		
o-Xylene			1.00	1.02		mg/Kg		102	70 - 130		
Toluene			1.00	1.06		mg/Kg		106	70 - 130		
Xylenes, Total			3.00	3.09		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-15665/1-A
Matrix: Solid
Analysis Batch: 15668

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15665

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		11/11/24 08:37	11/11/24 10:38	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		11/11/24 08:37	11/11/24 10:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*11/11/24 08:37*	*11/11/24 10:38*	*1*

Lab Sample ID: LCS 885-15665/2-A
Matrix: Solid
Analysis Batch: 15668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15665

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	37.1		mg/Kg		74	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*80*		*62 - 134*

QC Sample Results

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-15020-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 885-15641/3
Matrix: Solid
Analysis Batch: 15641

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.521		mg/L		104	50 - 150

Lab Sample ID: MB 885-15644/1-A
Matrix: Solid
Analysis Batch: 15641

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15644

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		11/09/24 09:02	11/09/24 09:40	1

Lab Sample ID: LCS 885-15644/2-A
Matrix: Solid
Analysis Batch: 15641

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.4		mg/Kg		96	90 - 110

QC Association Summary

Client: Vertex
Project/Site: Dawson Creek State #2

Job ID: 885-15020-1

GC VOA

Prep Batch: 15720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15020-1	BS24-75 3'	Total/NA	Solid	5030C	
MB 885-15720/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-15720/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-15720/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-15020-1 MS	BS24-75 3'	Total/NA	Solid	5030C	
885-15020-1 MSD	BS24-75 3'	Total/NA	Solid	5030C	

Analysis Batch: 15756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15020-1	BS24-75 3'	Total/NA	Solid	8015M/D	15720
MB 885-15720/1-A	Method Blank	Total/NA	Solid	8015M/D	15720
LCS 885-15720/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	15720
885-15020-1 MS	BS24-75 3'	Total/NA	Solid	8015M/D	15720
885-15020-1 MSD	BS24-75 3'	Total/NA	Solid	8015M/D	15720

Analysis Batch: 15757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15020-1	BS24-75 3'	Total/NA	Solid	8021B	15720
MB 885-15720/1-A	Method Blank	Total/NA	Solid	8021B	15720
LCS 885-15720/3-A	Lab Control Sample	Total/NA	Solid	8021B	15720

GC Semi VOA

Prep Batch: 15665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15020-1	BS24-75 3'	Total/NA	Solid	SHAKE	
MB 885-15665/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-15665/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 15668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15020-1	BS24-75 3'	Total/NA	Solid	8015M/D	15665
MB 885-15665/1-A	Method Blank	Total/NA	Solid	8015M/D	15665
LCS 885-15665/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	15665

HPLC/IC

Analysis Batch: 15641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15020-1	BS24-75 3'	Total/NA	Solid	300.0	15644
MB 885-15644/1-A	Method Blank	Total/NA	Solid	300.0	15644
LCS 885-15644/2-A	Lab Control Sample	Total/NA	Solid	300.0	15644
MRL 885-15641/3	Lab Control Sample	Total/NA	Solid	300.0	

Prep Batch: 15644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15020-1	BS24-75 3'	Total/NA	Solid	300_Prep	
MB 885-15644/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-15644/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Vertex
Job ID: 885-15020-1
Project/Site: Dawson Creek State #2

Client Sample ID: BS24-75 3'
Date Collected: 11/06/24 09:00
Date Received: 11/09/24 08:20

Lab Sample ID: 885-15020-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			15720	AT	EET ALB	11/11/24 14:40
Total/NA	Analysis	8015M/D		1	15756	JP	EET ALB	11/12/24 11:09
Total/NA	Prep	5030C			15720	AT	EET ALB	11/11/24 14:40
Total/NA	Analysis	8021B		1	15757	JP	EET ALB	11/12/24 11:09
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15668	MI	EET ALB	11/11/24 10:59
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:19
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 13:38

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex
Job ID: 885-15020-1
Project/Site: Dawson Creek State #2

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Released to Imaging: 2/19/2025 2:59:10 PM
Received by OCD: 12/11/2024 12:00:41 AM

Chain-of-Custody Record

Client: Mack Vertex (bill to mack)

Mailing Address: 3101 boyd dr. Carlsbad NM 88220

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 48hr

Project Name: Dawson Creek State #2

Project #: 24E-03166

Project Manager: SCarttar@vertexCa SallyCarttar

Sampler:

On Ice: ☒ Yes ☐ No mojo

# of Coolers: 1

Cooler Temp(including CF): 0.2+0.1=0.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885 15020 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX MTBE / TMB's (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/6	9:00	Soil	BS24-75 3'	4oz	Ice		X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
11/6/24	9:00	Katrina Taylor			11/7/24	910
11/7/24	1910			courier	11/9/24	8:20

Remarks: direct bill to Mack Energy
ATTN: Matt Buckles (MattBuckles@mecom)
CC: Sally Carttar (SCarttar@vertexca)
& Katrina.Taylor@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-15020-1

Login Number: 15020 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 410055

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2416663643**
Incident Name	**NAPP2416663643 DAWSON CREEK STATE #002 LAYFLAT RELEASE @ 30-005-64385**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-005-64385] DAWSON CREEK STATE COM #002H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	DAWSON CREEK STATE #002 LAYFLAT RELEASE
Date Release Discovered	06/14/2024
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Vehicular Accident | Flow Line - Production | Produced Water | Released: 257 BBL | Recovered: 25 BBL | Lost: 232 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	A vehicle operated by Deans Inc. accidentally struck the layflat line causing produced water to flow into pasture north and northwest of the adjacent lease road.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	False
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	The release occurred outside of containment.
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Sally Carttar Title: Consultant Email: scarttar@vertex.ca Date: 06/25/2024

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 300 and 500 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 300 and 500 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission		Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.		
Have the lateral and vertical extents of contamination been fully delineated		Yes
Was this release entirely contained within a lined containment area		No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		
Chloride	(EPA 300.0 or SM4500 Cl B)	7300
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	75
GRO+DRO	(EPA SW-846 Method 8015M)	13
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.		
On what estimated date will the remediation commence		09/05/2024
On what date will (or did) the final sampling or liner inspection occur		11/06/2024
On what date will (or was) the remediation complete(d)		11/06/2024
What is the estimated surface area (in square feet) that will be reclaimed		25000
What is the estimated volume (in cubic yards) that will be reclaimed		2916
What is the estimated surface area (in square feet) that will be remediated		24100
What is the estimated volume (in cubic yards) that will be remediated		2916
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.		

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Sally Carttar Title: Consultant Email: scarttar@vertex.ca Date: 12/10/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**398294**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**11/06/2024**
What was the (estimated) number of samples that were to be gathered	**2**
What was the sampling surface area in square feet	**400**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	24100
What was the total volume (cubic yards) remediated	2916
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	2916
Summarize any additional remediation activities not included by answers (above)	No additional activities. All remediation described in attached report.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Sally Carttar Title: Consultant Email: scarttar@vertex.ca Date: 12/10/2024

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 410055
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	2/19/2025
scott.rodgers	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. The OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	2/19/2025