Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213950465
District RP	1RP - 4298
Facility ID	
Application ID	

Site Assessment/Characterization

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?	>51 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☑ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☑ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☑ Data table of soil contaminant concentration data
- ☑ Depth to water determination
- ☑ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☑ Boring or excavation logs
- ☑ Photographs including date and GIS information
- ☑ Topographic/Aerial maps
- ☑ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213950465
District RP	1RP - 4298
Facility ID	
Application ID	

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.

Printed Name: Addison Guelker Title: Environmental Tech

Signature: [signature] Date: 5/19/22

email: addisong@forl.com Telephone: (432) 687-1777

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213950465
District RP	1RP - 4298
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☑ Detailed description of proposed remediation technique
- ☑ Scaled sitemap with GPS coordinates showing delineation points
- ☑ Estimated volume of material to be remediated
- ☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Addison Guelker Title: Environmental Tech

Signature: Addison Guelker Date: 5/19/22

email: addisong@forl.com Telephone: (432) 687-1777

OCD Only

Received by: _____ Date: _____

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Jennifer Nobui Date: 08/22/2022

CARMONA RESOURCES

SITE INFORMATION

Work Plan
Cabot Q SWD
Lea County, New Mexico
Unit L Sec 7 T15S R35E
33.029926°, -103.453886 °

1RP-1090
Produced Water Release
Point of Release: Tank Overflow
Release Date: 10/16/2006
Volume Released: 70 barrels of Produced Water
Volume Recovered: 20 barrels of Produced Water

1RP-1825
Produced Water Release
Point of Release: Loose Connection on the Injection Line
Release Date: 03/19/2008
Volume Released: 130 barrels of Produced Water
Volume Recovered: 120 barrels of Produced Water

1RP-1825
Produced Water Release
Point of Release: Lighting Strike
Release Date: 06/07/2008
Volume Released: 300 barrels of Produced Water
Volume Recovered: 280 barrels of Produced Water

1RP-4298
Produced Water Release
Point of Release: Injection Line Failed
Release Date: 05/28/2016
Volume Released: 110 barrels of Produced Water
Volume Recovered: 100 barrels of Produced Water

Prepared for:
Fasken Oil and Ranch, Ltd
6101 Holiday Hill Road
Midland, TX 79707

Prepared by:
Carmona Resources, LLC
310 West Wall Street
Suite 415
Midland, Texas 79701

310 West Wall Street, Suite 415
Midland TX, 79701
432.813.1992

CARMONA RESOURCES

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2.0 SITE CHARACTERIZATION AND GROUNDWATER

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APPENDIX A TABLE

APPENDIX B INITIAL C-141 AND REMEDIATION

APPENDIX C SITE CHARACTERIZATION AND GROUNDWATER

APPENDIX D LABORATORY REPORTS

310 West Wall Street, Suite 415
Midland TX, 79701
432.813.1992

CARMONA RESOURCES

May 18, 2022

New Mexico Oil Conservation Division
1220 South St, Francis Drive
Santa Fe, New Mexico 87505

Re: Work Plan
Cabot Q SWD
Fasken Oil and Ranch, Ltd
Site Location: Unit L, S07, T15S, R35E
(Lat 33.029926, Long -103.453886º)
Lea County, New Mexico

To whom it may concern:

On behalf of Fasken Oil and Ranch, Ltd. (Fasken), Carmona Resource, LLC has prepared this document for activities at the Cabot Q SWD. The site is located at 33.029926°, -103.453886° within Unit L S07, T15S, R35E in Lea County, New Mexico (Figures 1 and 2).

1.0 Site information and Background

1RP-1090

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on March 19, 2006, caused by a plugged check valve causing the tank overflow. It resulted in the release of approximately seventy (70) barrels of produced water, and twenty (20) were recovered. The impacted area is shown, on Figure 3. The initial C-141 form is attached in Appendix B.

1RP-1825

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on March 19, 2008, caused by pump vibration causing the injection line to come loose. It resulted in the release of approximately one hundred and thirty (130) barrels of produced water, and one hundred and twenty (120) were recovered. The impacted area is shown on Figure 3. The initial C-141 form is attached in Appendix B.

1RP-1825

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on June 7, 2008, caused by a lightning strike. It resulted in the release of approximately three hundred (300) barrels of produced water, and two hundred and eighty (280) were recovered. The impacted area is shown on Figure 3. The initial C-141 form is attached in Appendix B.

1RP-4298

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on May 28, 2016, caused by a failed injection line. It resulted in the release of approximately one hundred and ten (110) barrels of produced water, and one hundred (100) were recovered. The impacted area is shown on Figure 3. The initial C-141 form is attached in Appendix B.

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Midland, Texas 79701
432.813.1992

CARMONA RESOURCES

2.0 Site Characterization and Groundwater

The site is located within a low karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, five known water source is within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.27 miles East of the site in S07, T15S, R35E and was drilled in 1983. The well has a reported depth to groundwater of 75' below ground surface (ft bgs). A copy of the associated Point of Diversion Summary report is attached in Appendix D.

On April 20, 2022, Scarborough Drilling, Inc was onsite to drill a groundwater determination bore to 51 ft below ground surface and within a 0.50-mile radius of the location. The bore was left open for 72 hours and tagged with a water level meter. No water was detected at 51' below the surface. The coordinates for the groundwater determination bore are 33.029823°, -103.453124. See Appendix D for the driller's log.

3.0 NMAC Regulatory Criteria

Per the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following criteria were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 2,500 mg/kg (GRO + DRO + MRO).
- TPH: 1,000 mg/kg (GRO + DRO)
- Chloride: 10,000 mg/kg

4.0 Site Assessment Activities

Initial Assessment

On March 3, 2022, Fasken performed site assessment activities to evaluate soil impacts stemming from the multiple releases. A total of seven (7) points were advanced to depths ranging from surface – 4.5' bgs inside the release area to evaluate the vertical extent. See Table 1 for the analytical results. Due to the dense formation, Fasken could not vertically delineate via a backhoe. On March 18, 2022, Fasken performed site assessment activities to evaluate soil impacts stemming from the multiple releases. A total of fourteen (14) sample points were advanced to depths ranging from surface – 1.0' bgs outside the release area to evaluate the horizontal extent. See Figure 3 for the soil sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 300.0. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix E.

See Table 1 for the analytical results.

5.0 Proposed Work Plan

Based on the analytical data and the detected TPH and Chloride concentrations, Fasken proposes to remediate the areas in Figure 4. The maximum depth captured during site activities was around 2' in the majority of the areas and could not break through the dense rock formation via backhoe or track hoe.

- The areas of S-1 and S-2 will be attempted to be excavated to a depth of 1.5' below the surface; if

CARMONA RESOURCES

not achievable, will dig to the max depth and backfilled with clean material to grade.

- The areas of BH-1, BH-2, BH-3, and BH-6 will be attempted to be excavated to a depth of 2.5' below the surface; if not achievable will dig to the max depth and backfilled with clean material to grade
- The areas of BH-4 and BH-5 will be attempted to be excavated to a depth of 3.0' below the surface; if not achievable, will dig to the max depth and backfilled with clean material to grade.
- The area of T-1 will be attempted to be excavated to a depth of 4.0' below the surface; if not achievable, will dig to the max depth and be backfilled with clean material to grade.
- Fasken requests a variance per 19.15.29.14.A NMAC collecting composite sidewall and floor samples every 400 square feet.
- An estimated 8,440 cubic yards to be removed and hauled to the nearest disposal.

Once the site activities and excavation arecomplete, the areas will be backfilled with clean material to surface grade. The remediation will be implemented 90 days after the work plan is approved.

6.0 Conclusions

Upon completion, a final closure report describing the remediation activities will be presented to the New Mexico Oil Conservation Division (NMOCD). If you have any questions regarding this report or need additional information, don't hesitate to contact us at 432-813-1992.

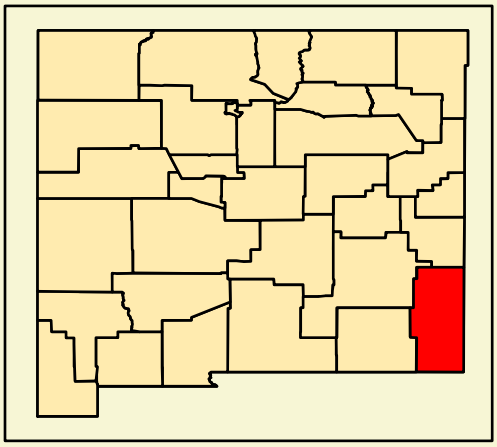
Sincerely,
Carmona Resources, LLC

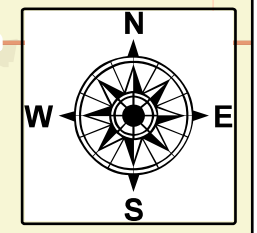
Mike Carmona
Environmental Manager

Conner Moehring
Sr. Project Manager

FIGURES

CARMONA RESOURCES





Tatum

S-NM-Highway-206

McDonald

Hillburn City

206

Plains Hwy

W US Highway 82

Buckeye

W Avenue D

Lovington

E Avenue D

8

Highway 82

S 2nd St

18

Lea

N S

0 2 4 8 Miles

Legend

Site Location

OVERVIEW MAP
FASKEN OIL AND RANCH
CABOT Q SWD
LEA COUNTY, NEW MEXICO
33.029926, -103.453886

SCALE: As Shown

Date: 5/5/2022

CARMONA RESOURCES

Carmona Resources
310 West Wall Street, Suite 415
Midland, Texas 79701

NOTES:

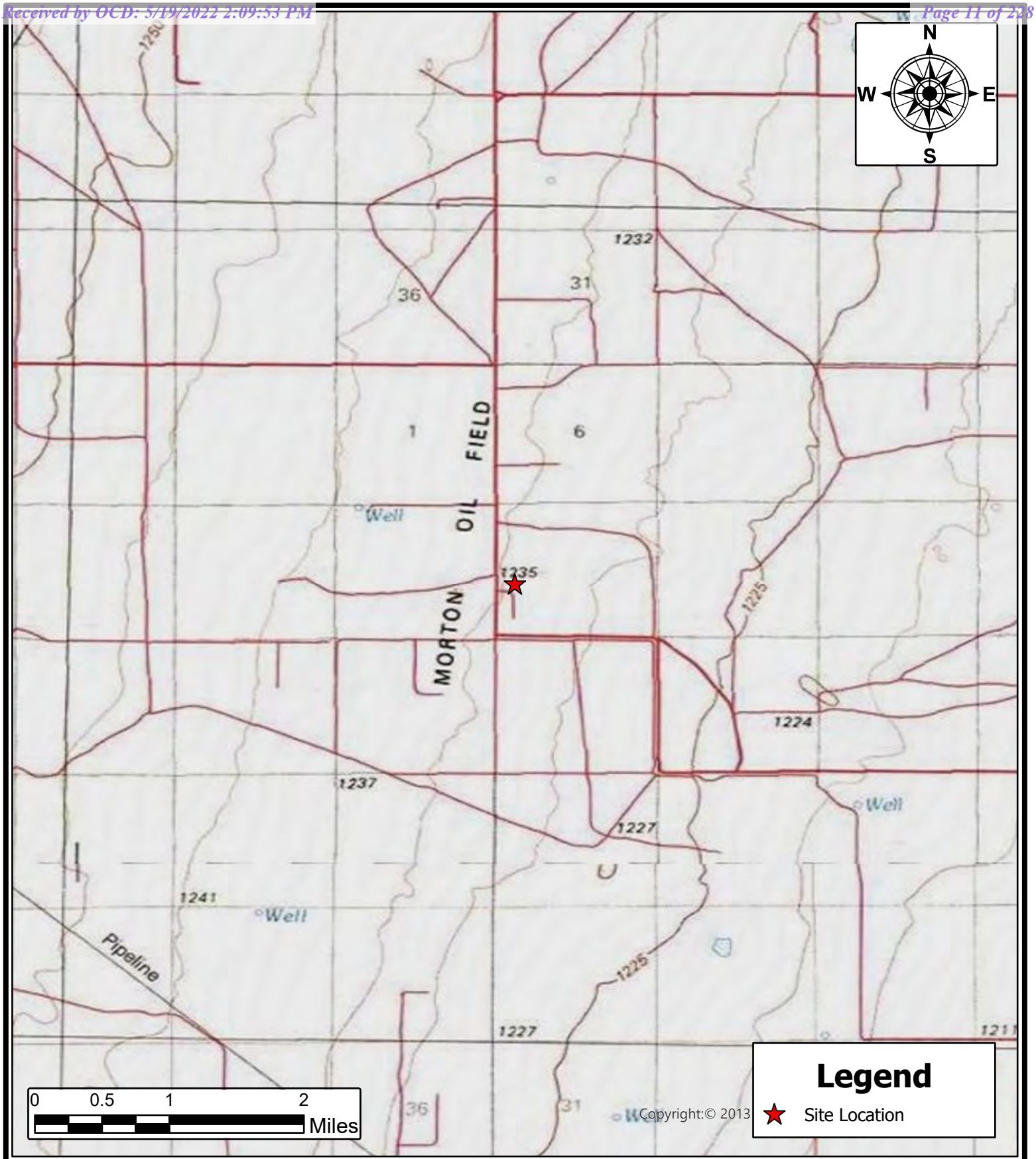
1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:

FIGURE 1

SHEET NUMBER:

1 of 1



TOPOGRAPHIC MAP
FASKEN OIL AND RANCH
CABOT Q SWD
LEA COUNTY, NEW MEXICO
33.029926, -103.453886

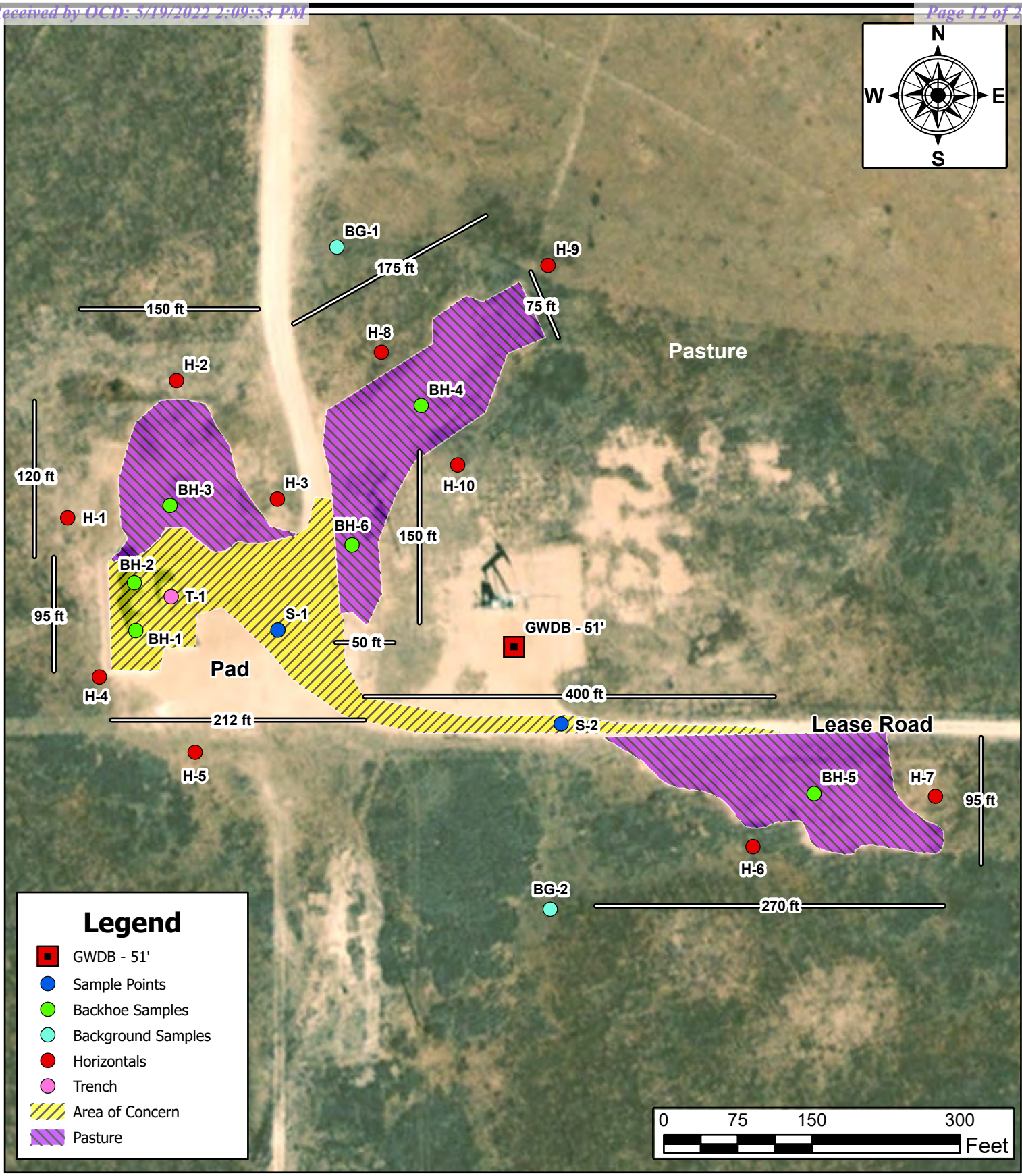
SCALE: As Shown | Date: 5/5/2022

CARMONA RESOURCES

Carmona Resources
310 West Wall Street, Suite 415
Midland, Texas 79701

NOTES:
1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:
FIGURE 2
SHEET NUMBER:
1 of 1



SAMPLE LOCATION MAP
FASKEN OIL AND RANCH
CABOT Q SWD
LEA COUNTY, NEW MEXICO
33.029926, -103.453886

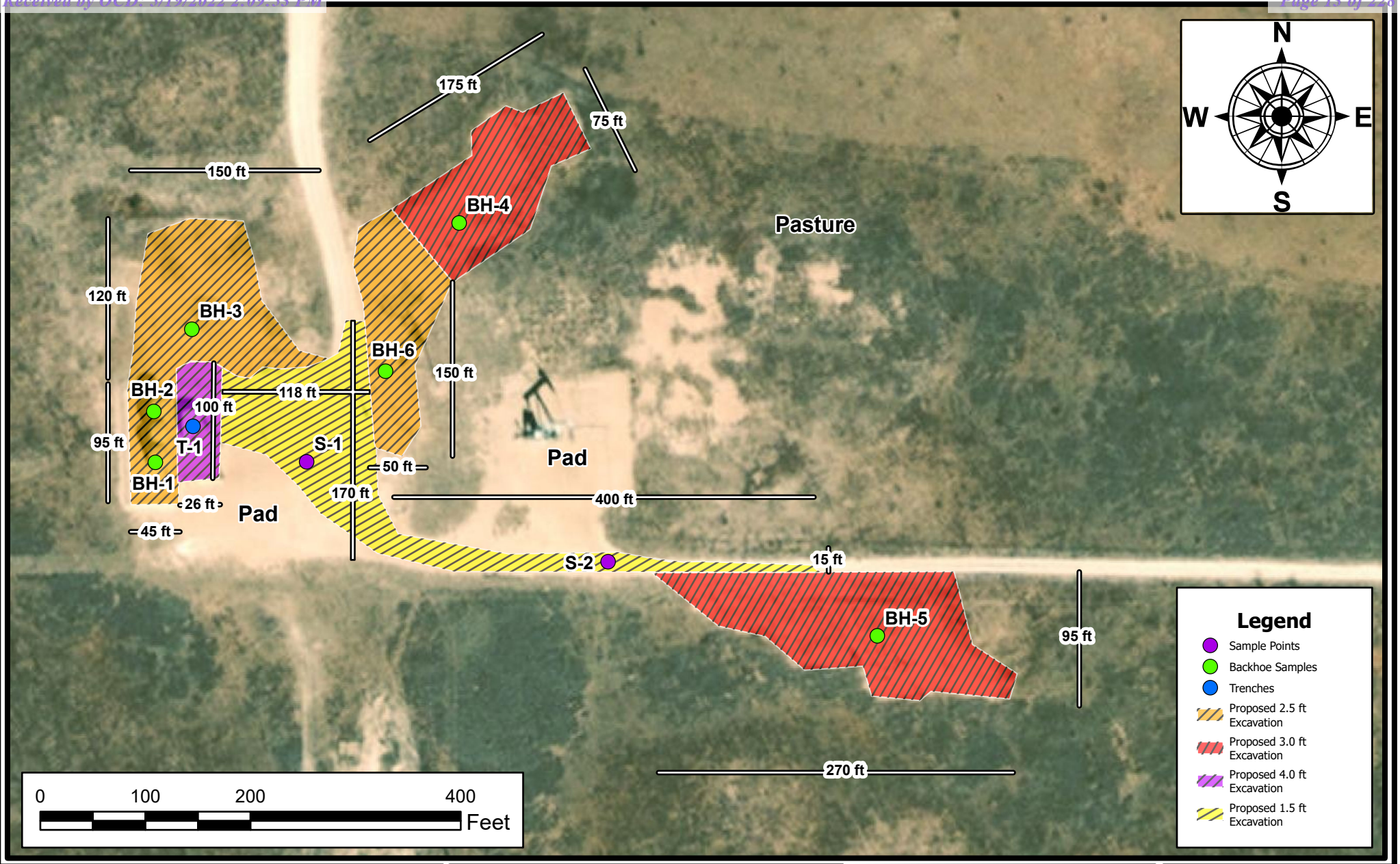
SCALE: As Shown | Date: 5/5/2022

CARMONA RESOURCES

Carmona Resources
310 West Wall Street, Suite 415
Midland, Texas 79701

NOTES:
1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:
FIGURE 3
SHEET NUMBER:
1 of 1



EXCAVATION DEPTH MAP
FASKEN OIL AND RANCH
CABOT Q SWD
LEA COUNTY, NEW MEXICO
33.029926, -103.453886

SCALE: As Shown

Date: 5/16/2022

CARMONA RESOURCES

Carmona Resources
310 West Wall Street, Suite 415
Midland, Texas 79701

NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:

FIGURE 4

SHEET NUMBER:

1 of 1

APPENDIX A

CARMONA RESOURCES

Sample Results					
Sample I.D	Date Sampled	Depth (ft.)	TPH (mg/kg)	BTEX	Chlorides (mg/kg)
BG1	3/18/2022	0-6"	ND	ND	25.4
BG2	3/18/2022	0-6"	51.1	ND	8.28
BH1	3/3/2022	0-6”	486	ND	8930
BH1	3/3/2022	1'	241	ND	9830
BH1	3/3/2022	2’	402	0.00855	4670
BH1	3/3/2022	2.25’	383	ND	9350
BH2	3/3/2022	0-6”	1110	ND	2910
BH2	3/3/2022	1’	1220	ND	12400
BH2	3/3/2022	2’	308	ND	82.9
BH3	3/3/2022	0-6”	89.1	ND	31.6
BH3	3/3/2022	1’	214	ND	1390
BH3	3/3/2022	2’	114	ND	834
BH4	3/3/2022	0-6”	ND	ND	2270
BH4	3/3/2022	1’	ND	ND	1110
BH4	3/3/2022	2’	ND	ND	2310
BH4	3/3/2022	2.5’	ND	ND	936
BH5	3/3/2022	0-6”	ND	ND	117
BH5	3/3/2022	1’	ND	ND	1780
BH5	3/3/2022	2’	ND	ND	1120
BH5	3/3/2022	2.5’	ND	ND	969
BH6	3/3/2022	0-6”	ND	ND	232
BH6	3/3/2022	1’	ND	ND	1070
BH6	3/3/2022	1.75’	ND	ND	921
T1	3/3/2022	0-6”	1180	ND	344
T1	3/3/2022	2’	312	ND	1280
T1	3/3/2022	3’	965	ND	738
T1	3/3/2022	4’	371	ND	631
T1	3/3/2022	4.5’	378	ND	572
S1	3/18/2022	0-6"	73.9	ND	57600
S1	3/18/2022	1'	ND	ND	2560
S2	3/18/2022	0-6"	ND	ND	7100
S2	3/18/2022	1'	ND	ND	1100

* ND Non Detect

Sample Results					
Sample I.D	Date Sampled	Depth (ft.)	TPH (mg/kg)	BTEX	Chlorides (mg/kg)
H1	3/18/2022	0-6"	ND	ND	ND
H1	3/18/2022	1'	ND	ND	13.8
H2	3/18/2022	0-6"	ND	ND	109
H2	3/18/2022	1'	ND	ND	572
H3	3/18/2022	0-6"	ND	ND	60.3
H3	3/18/2022	1'	84.7	ND	49.9
H4	3/18/2022	0-6"	ND	ND	9.03
H4	3/18/2022	1'	ND	ND	671
H5	3/18/2022	0-6"	ND	ND	24.8
H5	3/18/2022	1'	ND	ND	153
H6	3/18/2022	0-6"	ND	ND	31.4
H6	3/18/2022	1'	ND	ND	48.7
H7	3/18/2022	0-6"	ND	ND	26.2
H7	3/18/2022	1'	ND	ND	ND
H8	3/18/2022	0-6"	ND	ND	ND
H8	3/18/2022	1'	ND	ND	29.1
H9	3/18/2022	0-6"	ND	ND	ND
H9	3/18/2022	1'	ND	ND	19.5
H10	3/18/2022	0-6"	ND	ND	19.9
H10	3/18/2022	1'	ND	ND	16.9

* ND Non Detect

APPENDIX B

CARMONA RESOURCES

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Fasken Oil and Ranch, Ltd.	Contact	Jimmy D. Carlile
Address	303 W. Wall, Ste 1800 Midland, TX	Telephone No.	432 687-1777
Facility Name	Cabot Q SWD	Facility Type	Battery

Surface Owner	Mineral Owner	Lease No.
State	State	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	7	15S	35E	1980	South	560	West	Lea

Latitude _____ Longitude _____

WR -50'

NATURE OF RELEASE

Type of Release	produced water	Volume of Release	70
Source of Release	battery - tank overflow	Date and Hour of Occurrence	10/16/06 4 pm
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Larry Johnson's voice mail
By Whom?	Jimmy D. Carlile	Date and Hour	10/17/06 9 am
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

Volume Recovered 20
Date and Hour of Discovery 10/16/06

If a Watercourse was Impacted, Describe Fully.*

NA

Describe Cause of Problem and Remedial Action Taken.*

Check valve on pump plugged causing system to back up and tank to overflow. Check valve was cleaned out and put back in service. Plans are to re-plumb piping to solve this problem from occurring again.

Describe Area Affected and Cleanup Action Taken.*

Firewall area 75' x 25' area filled and overflowed. Approximately 10 bbls ran on caliche 10' x 100' on pad site. Plans are to mix in 2 loads of chat into the pad to dilute any residual chlorides.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	Jimmy D Carlile	OIL CONSERVATION DIVISION	
Printed Name:	Jimmy D. Carlile	Approved by District Supervisor:	ENVIRONMENTAL ENGR
Title:	Regulatory Affairs Coor.	Approval Date: 6.5.07	Expiration Date: 8.5.07
E-mail Address:	jimmyc@forl.com	Conditions of Approval: SUBMIT FINAL REPORT BY	Attached ☐
Date:	10/17/06 Phone: 432 687-1777		

* Attach Additional Sheets If Necessary

RP# 1090

District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Fasken Oil and Ranch, Ltd.	Contact	JImmy Carlile
Address	303 W. Wall, Ste 1800 Midland, TX	Telephone No.	432 687-1777
Facility Name	Cabot Q SWD	Facility Type	Battery
Surface Owner	State	Mineral Owner	State
~~Lease~~ API No.	30-025 -26726		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	7	15S	35E	1980	S	560	W	Lea

Latitude_____ Longitude_____

WTR 50'

NATURE OF RELEASE

Type of Release	produced water	Volume of Release	130
Source of Release	injection line	Volume Recovered	120
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required		Date and Hour of Occurrence	Date and Hour of Discovery
		If YES, To Whom?	3 pm 3/19/08 5 pm 3/19/08
			Larry Johnson' voice mail
By Whom?	Jimmy Carlile	Date and Hour	8:15 am 3/20/08
Was a Watercourse Reached? ☐ Yes ☒ No		If YES, Volume Impacting the Watercourse	

RECEIVED
MAR 24 2008
HOBBS OCD

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Pump vibration casued the injection line to come loose. Line re-applied and tightened.

Describe Area Affected and Cleanup Action Taken.*

Firewall inside tank battery area. No fluid escaped the firewall.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Jimmy D. Carlile	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: Regulatory Affairs	Approval Date: 3.26.08 Expiration Date: 5.26.08
E-mail Address: jimmyc@forl.com	Conditions of Approval: VERTICAL DELINEATION IS REQUIRED DUE TO WATER DEPTH
Date: 3/20/08 Phone: 432687-1777	~~Attached~~ ☐ 1RP# 1825

* Attach Additional Sheets If Necessary

fCOH0008731166

District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Fasken Oil and Ranch, Ltd.	Contact Jimmy D. Carlile
Address 303 W. Wall, Ste 1800, Midland, TX	Telephone No. 432 687-1777
Facility Name Cabot Q SWD	Facility Type SWD

Surface Owner	Mineral Owner	Lease No.
State	State	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	7	15S	35E	1980	South	560	West	Lea

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release produced water	Volume of Release 300	Volume Recovered 280
Source of Release tank	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? 9 pm 6/7/08 Larry Johnson's voice mail	9 pm 6/7/08
By Whom? Jimmy D. Carlile	Date and Hour 1:30 pm CST 6/8/08	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
JUN 11 2008
HOBBS OCD

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Lightning struck the fiberglass tank and caused the produced water spill. Most of the water was contained inside the bermed area. An area 20' by 70' on the north end of the battery was also affected.

Describe Area Affected and Cleanup Action Taken.*
20' by 70' on the north end of the battery in the pasture. Produced water that was still standing was vaccumed up.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Jimmy D Carlile	OIL CONSERVATION DIVISION
Printed Name: Jimmy D. Carlile	Approved by District Supervisor: Chris Williams
Title: Regulatory Affairs Coor.	Approval Date: 6.12.08 Expiration Date: 8.12.08
E-mail Address: jimmyc@forl.com	Conditions of Approval: SUBMIT FINAL C-141 BY 1RP-1825 Attached ☐
Date: 6/8/08 Phone: 432 687-1777	

* Attach Additional Sheets If Necessary

RECEIVED
By JKeyes at 2:49 pm, Jun 01, 2016

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexic
Energy Minerals and Natural

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Fasken Oil and Ranch, Ltd	Contact Aaron Pachlhofer
Address 6101 Holiday Hill Road	Telephone No. 432-687-1777
Facility Name Cabot "Q" SWD No. 1	Facility Type SWD

Surface Owner Barbie Beer	Mineral Owner State	API No. 30-025-022690

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	7	15S	35E	1980	South	560	West	Lea

Latitude 33.029897° Longitude -103.454002°

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 110 BBLs	Volume Recovered 100 BBLs
Source of Release Injection Line	Date and Hour of Occurrence 5/28/16 8:00 a.m.	Date and Hour of Discovery 5/28/16 10:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Called to NMOCD Emergency line phone line	
By Whom? Aaron Pachlhofer	Date and Hour 5/28/16 7:00 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Injection line failed near wellhead. Check valve to well head failed and allowed water to flow to surface. All wells shut in. Line repaired on 5/31/16 and service returned..

Describe Area Affected and Cleanup Action Taken.*
The well pad, interior of the firewall, leases road, and a about 5,000 square feet of pasture were affected by the release. All fluids were removed. Further cleanup is pending scheduling.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Aaron Pachlhofer	Approved by Environmental Specialist:
Title: Environmental Coordinator	Approval Date: 06/01/2016 Expiration Date: 08/01/2016
E-mail Address: aaron[@forl.com	Conditions of Approval: Discrete samples only. Delineate and remediate per NMOCD guidelines. Attached ☐ 1RP 4298
Date: 6/1/16 Phone: 432-687-1777	

* Attach Additional Sheets If Necessary

nJXK1615353185
pJXK1615353302

APPENDIX C

CARMONA RESOURCES

Groundwater Determination Bore

Faskin Oil and Ranch
Cabot Q SWD

Legend
- 0.50 Mile Raduis
- Cabot Q SWD
- GWDB - 51'

Cabot Q SWD
GWDB - 51'
147
Hightop
N
2000 ft
Google Earth

CARMONA RESOURCES

Project Name :	**Fasken Oil and Ranch Superior State #2**	**Date :**	**Wednesday, April 20, 2022**
Project No. :	**1044**	**Sampler :**	**Lane Scarborough**
Location :	**Lea County, New Mexico**		
Coordinates :	**33.029823, -103.453124**	**Driller :**	**Scarborough Drilling**
Elevation :	**4,047**	**Method :**	**Air Rotary**

Depth (ft.)	WL	Soil Description	Lithology
0		(0'-1') - White well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GW).	
5		(5') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
10		(10') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
15		(15') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
20		(20') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
25		(25') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
30		(30') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
35		(35') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
40		(40') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
45		(45') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
50			

Depth (ft.)	WL	Soil Description	Lithology
50		(50'-51') - Light brown well graded gravel, w/ <50% loose, coarse sand and caliche, no organics, dry (GM).	
55			
60			
65			
70			
75			
80			
85			
90			
95			
105			

Comments : *Boring terminated at 51' with no presence of groundwater or moisture.*

72 hours later no presence of groundwater was detected

SCARBOROUGH DRILLING, INC.

TEST HOLES • WATER WELLS

P.O. Box 305 - Ph. 806-872-3285 or 872-9349

LAMESA, TEXAS 79331

2001 South Hwy. 87

Fasken

WELL LOG Cobot @ SWD

From	To	FORMATION
0	1	Top Soil
1	18	Caliche Rock
18	51	Sand w/Rock Stringers
		No Water
		Plugged Bore
		33.029823, -103.453124

Date _____ Driller Lane Scarborough

GIBBS PRINTING CO.-LAMESA, TX

Nearest Water Well

Faskin Oil and Ranch
Cabot Q SWD

Low Karst

Faskin Oil and Ranch
Cabot Q SWD

McDonald

Legend
Cabot Q SWD
Low

Cabot Q SWD

457
457
206
82
82
82
Lovington
83
83
238

N

6 mi

Google Earth

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 00110	R	L	LE		4	3	35	15S	35E	651384	3648949*	82	70	12
L 00110 POD3		L	LE	3	4	1	35	15S	35E	651270	3649653*	95	45	50
L 00110 POD4	R	L	LE	1	1	3	35	15S	35E	650874	3649443*	110	55	55
L 00110 POD5		L	LE	2	4	1	35	15S	35E	651470	3649853*	110	55	55
L 00110 POD6		L	LE		4	3	35	15S	35E	651384	3648949*	132	70	62
L 00110 S		L	LE	3	3	1	35	15S	35E	650867	3649646*	100		
L 00110 S	R	L	LE	3	3	1	35	15S	35E	650867	3649646*	100		
L 00439		L	LE	1	1	1	35	15S	35E	650861	3650249*	100		
L 00439 POD2		L	LE		1	1	35	15S	35E	650962	3650150*	120	40	80
L 00534		L	LE	1	1	2	36	15S	35E	653278	3650292*	105		
L 00534	R	L	LE	1	1	2	36	15S	35E	653278	3650292*	105		
L 00534 POD2	R	L	LE			1	36	15S	35E	652781	3649976*	110	50	60
L 00534 POD3		L	LE			1	36	15S	35E	652781	3649976*	130	55	75
L 00534 POD3	R	L	LE			1	36	15S	35E	652781	3649976*	130	55	75
L 00534 POD4		L	LE	1	1	1	36	15S	35E	652472	3650277*	187	55	132
L 00534 POD4	R	L	LE	1	1	1	36	15S	35E	652472	3650277*	187	55	132
L 00534 POD5		L	LE		3	2	36	15S	35E	653386	3649790*	130	68	62
L 00534 POD5	R	L	LE		3	2	36	15S	35E	653386	3649790*	130	68	62
L 00534 POD6		L	LE		3	1	36	15S	35E	652580	3649775*	153	62	91
L 00534 POD6	R	L	LE		3	1	36	15S	35E	652580	3649775*	153	62	91
L 00535		L	LE	1	1	1	36	15S	35E	652472	3650277*	105	56	49
L 00535	R	L	LE	1	1	1	36	15S	35E	652472	3650277*	105	56	49
L 00627		L	LE	4	2	4	31	15S	35E	645838	3649144*	70	55	15
L 00627 POD3		L	LE	1	1	3	32	15S	35E	646041	3649352*	90	60	30
L 00627 S		L	LE	2	1	4	31	15S	35E	645435	3649337*			
L 00674		L	LE	1	3	3	35	15S	35E	650880	3649041*	69	65	4

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

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(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 00797 POD2		L	LE		1	1	03	15S	35E	649227	3658168*	126	40	86
L 00797 POD3	R	L	LE	3	1	3	02	15S	35E	650746	3657295*	135	70	65
L 00797 POD4		L	LE	2	4	4	03	15S	35E	650549	3657084*	138	40	98
L 00797 POD5		L	LE		1	3	02	15S	35E	650847	3657396*	136	75	61
L 00797 S		L	LE			1	03	15S	35E	649433	3657967*	130	49	81
L 01074		L	LE	1	3	3	35	15S	35E	650880	3649041*	79	45	34
L 01165 POD1		L	LE	3	4	3	02	15S	35E	651154	3656900*	90	70	20
L 01167 POD1		L	LE	3	4	3	02	15S	35E	651154	3656900*	105	90	15
L 01168 POD1		L	LE	1	1	2	03	15S	35E	649930	3658283*	90	70	20
L 01169 POD1		L	LE	3	1	3	04	15S	35E	647526	3657232*	90	70	20
L 01170 POD1		L	LE	1	1	4	08	15S	35E	646746	3655806*	90	70	20
L 01699 POD2		L	LE	2	3	4	36	15S	35E	653499	3649084*	100	53	47
L 01700 POD1		L	LE	2	3	4	36	15S	35E	653499	3649084*	90	60	30
L 01726		L	LE		2	2	33	15S	35E	648946	3650110*	125	60	65
L 01727		L	LE		1	1	33	15S	35E	647739	3650088*	130	60	70
L 01727	R	L	LE		1	1	33	15S	35E	647739	3650088*	130	60	70
L 01728		L	LE		1	1	28	15S	35E	647714	3651699*	100	45	55
L 01728	R	L	LE		1	1	28	15S	35E	647714	3651699*	100	45	55
L 01729		L	LE		1	4	35	15S	35E	651781	3649359*	210	58	152
L 01729	R	L	LE		1	4	35	15S	35E	651781	3649359*	210	58	152
L 01730		L	LE			4	36	15S	35E	653601	3649186*	210	60	150
L 01730	R	L	LE			4	36	15S	35E	653601	3649186*	210	60	150
L 01731		L	LE		3	1	21	15S	35E	647695	3652906*	100	42	58
L 01731	R	L	LE		3	1	21	15S	35E	647695	3652906*	100	42	58
L 01795		L	LE	4	2	1	03	15S	35E	649728	3658075*	127	62	65
L 02957		L	LE		3	1	33	15S	35E	647745	3649686*	120	65	55
L 03018		L	LE		1	3	33	15S	35E	647752	3649283*	116	50	66
L 03058		L	LE		3	3	31	15S	35E	644525	3648820*	85	71	14
L 03083		L	LE		3	3	31	15S	35E	644525	3648820*	85	73	12

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 03122	L	LE	4	2	3	32	15S	35E	646643	3649159*	138	70	68
L 03129	L	LE				07	15S	35E	645037	3655857*	120	60	60
L 03141	L	LE	2	3	3	31	15S	35E	644624	3648919*	130	65	65
L 03220	L	LE		3	3	12	15S	35E	652489	3655412*	110	50	60
L 04427	L	LE		4	2	22	15S	35E	650513	3652960*	125	55	70
L 04614	L	LE	4	2	2	25	15S	35E	653854	3651710*	95	63	32
L 04784	L	LE	2	4	4	25	15S	35E	653875	3650702*	90	58	32
L 04894	L	LE		3	3	25	15S	35E	652566	3650580*	95	52	43
L 04900	L	LE	3	1	3	25	15S	35E	652458	3650882*	105	55	50
L 04900 X	L	LE	3	2	3	25	15S	35E	652861	3650890*	160	72	88
L 04923	L	LE	4	4	1	12	15S	35E	652963	3656057	115	64	51
L 04923 S	L	LE	3	4	2	11	15S	35E	651962	3656130	120	100	20
L 04934	L	LE			1	01	15S	35E	652653	3658029*	100	48	52
L 04934 S	L	LE	3	3	2	01	15S	35E	653155	3657741*	89	49	40
L 04934 S2	L	LE			3	01	15S	35E	652664	3657223*	100	45	55
L 04972	L	LE				03	15S	35E	649845	3657564*	124	45	79
L 05215	L	LE		4	2	01	15S	35E	653659	3657849*	60	44	16
L 05469	L	LE	4	2	4	34	15S	35E	650670	3649236*	134	68	66
L 05817	L	LE		2	2	36	15S	35E	653782	3650201*	128	65	63
L 05988	L	LE		4	4	25	15S	35E	653776	3650603*	90	60	30
L 06042	L	LE		3	3	33	15S	35E	647758	3648881*	92	52	40
L 06046	L	LE	3	3	3	07	15S	35E	644333	3655153*	104	56	48
L 06158	L	LE		3	4	27	15S	35E	650149	3650536*	118	46	72
L 06376	L	LE		2	1	06	15S	35E	644801	3658080*	120	58	62
L 06716	L	LE			4	28	15S	35E	648738	3650707*	90	55	35
L 06739	L	LE	2	4	4	01	15S	35E	653769	3657142*	92	51	41
L 06755	L	LE	2	4	3	04	15S	35E	648134	3657037*	130	51	79
L 06991	L	LE	4	1	3	24	15S	35E	652631	3652493*	120	50	70
L 07136	L	LE		1	2	13	15S	35E	653301	3655024*	120	58	62

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

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(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 07358		L	LE			4	34	15S	35E	650375	3649127*	73	55	18
L 07413		L	LE		1	3	28	15S	35E	657262	3651057	100	65	35
L 07413	R	L	LE		1	3	28	15S	35E	657262	3651057	100	65	35
L 07508		L	LE		4	2	33	15S	35E	648953	3649708*	95	61	34
L 07753		L	LE	4	2	3	27	15S	35E	649838	3650830*	143	56	87
L 08143		L	LE		4	3	35	15S	35E	651384	3648949*	130	52	78
L 08530 POD2		L	LE	1	1	2	13	15S	35E	652312	3655137	146	58	88
L 08542		L	LE	2	1	3	13	15S	35E	653252	3654659	141	58	83
L 08849		L	LE	4	4	3	35	15S	35E	651483	3648848*	114	61	53
L 09369		L	LE	1	1	3	13	15S	35E	652459	3655967	102	58	44
L 09372		L	LE		2	3	07	15S	35E	644835	3655666*	150	75	75
L 09523		L	LE	1	1	4	07	15S	35E	645136	3655773*	140	57	83
L 09555		L	LE		4	3	07	15S	35E	644842	3655263*	150	54	96
L 09582		L	LE		1	1	35	15S	35E	650962	3650150*	99	65	34
L 09817		L	LE		4	1	32	15S	35E	646538	3649663*	130	65	65
L 09856		L	LE	3	3	1	16	15S	35E	647569	3654415*	150	65	85
L 09897		L	LE				27	15S	35E	649945	3651123*	190	55	135
L 09900		L	LE				35	15S	35E	651584	3649545*	110		
L 10000		L	LE				35	15S	35E	651584	3649545*	125	64	61
L 10036		L	LE			1	35	15S	35E	651169	3649948*	140	70	70
L 10039	R	L	LE			2	13	15S	35E	653509	3654823*	82	60	22
L 10039 POD2		L	LE	1	3	2	13	15S	35E	653229	3654638	195	65	130
L 10114		L	LE	4	3	2	05	15S	35E	646846	3657698	175		
L 10120		L	LE	3	4	2	34	15S	35E	650464	3649638*	126	54	72
L 10243		L	LE	3	3	4	33	15S	35E	648462	3648794*	120	69	51
L 10287	R	L	LE		1	4	19	15S	35E	645287	3652456*	180	60	120
L 10287 POD2		L	LE	1	1	4	19	15S	35E	645186	3652555*	182	56	126
L 10307		L	LE	2	2	2	36	15S	35E	653881	3650300*	120	120	0
L 10308		L	LE		2	2	36	15S	35E	653782	3650201*	120	120	0

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 10357	L	LE	1	4	1	35	15S	35E	651270	3649853*	120	55	65
L 10372	L	LE			3	35	15S	35E	651182	3649143*	100	55	45
L 10381	L	LE		3	4	30	15S	35E	645317	3650445*	175	60	115
L 10441	L	LE	1	4	3	35	15S	35E	651283	3649048*	100	55	45
L 10522	L	LE		3	2	36	15S	35E	653386	3649790*	150	65	85
L 10563	L	LE	3	1	2	05	15S	35E	646711	3658021*	175	65	110
L 10636	L	LE	2	2	1	35	15S	35E	651464	3650256*	92	58	34
L 10670	L	LE		4	2	36	15S	35E	653789	3649798*	100	62	38
L 10674	L	LE		3	3	35	15S	35E	650981	3648942*	115		
L 10754	L	LE			1	35	15S	35E	651169	3649948*	150	60	90
L 10796	L	LE	4	3	1	28	15S	35E	647819	3651195*	180	70	110
L 10843	L	LE		4	2	36	15S	35E	653789	3649798*	130	69	61
L 10851	L	LE			2	36	15S	35E	653587	3649991*	100	60	40
L 10935	L	LE				35	15S	35E	651584	3649545*	120	60	60
L 11040	L	LE	3	1	1	35	15S	35E	650861	3650049*	100	55	45
L 11187	L	LE		4	2	36	15S	35E	653789	3649798*	110	62	48
L 11221	L	LE	2	1	1	33	15S	35E	647838	3650187*	176		
L 11246	L	LE	2	1	2	13	15S	35E	653291	3654603	208	50	158
L 11251	L	LE	4	4	1	34	15S	35E	649857	3649622*	155		
L 11266	L	LE	2	4	2	32	15S	35E	647352	3649825	170		
L 11350	L	LE		3	2	36	15S	35E	653386	3649790*	200	57	143
L 11364	L	LE		1	1	35	15S	35E	650962	3650150*	180	55	125
L 11400	L	LE	3	4	3	01	15S	35E	652764	3656928*	178	55	123
L 11612	L	LE	3	2	3	35	15S	35E	651277	3649250*	100	54	46
L 11660	L	LE	3	4	1	14	15S	35E	651144	3654584	172	48	124
L 12194 POD1	L	LE	3	2	1	35	15S	35E	651328	3650154	200		
L 12301 POD1	L	LE	3	3	3	35	15S	35E	650858	3648951	123	54	69
L 12313 POD1	L	LE	3	2	1	35	15S	35E	651307	3650141	200		
L 12416 POD1	L	LE	4	2	4	36	15S	35E	653839	3649354	120	62	58

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 12427 POD1	L	LE	2	4	2	36	15S	35E	653864	3649839	160	75	85
L 12540 POD1	L	LE	2	4	3	36	15S	35E	654086	3649106	175		
L 12603 POD1	L	LE	1	2	4	36	15S	35E	653636	3649533	140	59	81
L 12627 POD1	L	LE	4	4	4	01	15S	35E	653731	3656869	190	80	110
L 12634 POD1	L	LE	1	2	4	35	15S	35E	652103	3649398	150	78	72
L 12741 POD1	L	LE	2	3	4	36	15S	35E	653500	3649076	161	70	91
L 12752 POD1	L	LE	2	3	1	35	15S	35E	669401	3665038	200	114	86
L 12802 POD1	L	LE	4	1	2	36	15S	35E	653428	3650007	160	82	78
L 12844 POD1	L	LE	4	4	4	35	15S	35E	652301	3648878	150	60	90
L 12850 POD1	L	LE	3	3	4	35	15S	35E	651618	3648864	140	59	81
L 12897 POD1	L	LE	1	4	3	36	15S	35E	654181	3648803	210	54	156
L 12960 POD1	L	LE	4	3	3	36	15S	35E	652591	3648898	160	80	80
L 12975 POD1	L	LE	3	4	4	35	15S	35E	652007	3648867	110	57	53
L 13126 POD1	L	LE	1	3	3	36	15S	35E	652472	3649395	160	50	110
L 13160 POD1	L	LE	1	2	3	36	15S	35E	652915	3649473	160	53	107
L 13173 POD1	L	LE			2	33	15S	35E	648540	3650040	28		
L 13173 POD2	L	LE			2	33	15S	35E	648524	3650040	38		
L 13177 POD1	L	LE	2	3	2	36	15S	35E	653770	3649406	160	70	90
L 13218 POD1	L	LE	1	1	3	34	15S	35E	649278	3649385	70		
L 13218 POD2	L	LE	4	1	3	34	15S	35E	649441	3649314	70		
L 13218 POD3	L	LE	2	1	3	34	15S	35E	649425	3649370	72		
L 13218 POD4	L	LE	3	1	3	34	15S	35E	649314	3649240	68		
L 13218 POD5	L	LE	3	1	3	34	15S	35E	649401	3649266	70		
L 13218 POD6	L	LE	3	1	2	34	15S	35E	649507	3649343	70		
L 13282 POD1	L	LE	4	3	3	35	15S	35E	650975	3648829	211		
L 13283 POD1	L	LE	4	1	4	36	15S	35E	653483	3649396	160	60	100
L 13299 POD1	L	LE	3	3	1	35	15S	35E	650815	3649579	160	70	90
L 13339 POD1	L	LE	3	2	2	07	15S	35E	645559	3656331	21		
L 13448	L	LE	3	4	4	35	15S	35E	652115	3648949	202	60	142

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 13460 POD 1	L	LE	1	2	3	23	15S	35E	651547	3653133	155	60	95
L 13562 POD1	L	LE	2	2	2	36	15S	35E	653876	3650264	150	63	87
L 13580 POD1	L	LE	2	3	4	35	15S	35E	651583	3649095	168	70	98
L 13596 POD1	L	LE	4	3	4	35	15S	35E	651815	3648904	164	70	94
L 13702 POD1	L	LE	2	2	4	35	15S	35E	652206	3649471	167	70	97
L 13729 POD1	L	LE	4	1	2	33	15S	35E	648575	3650007	65		
L 13774 POD1	L	LE	1	3	4	35	15S	35E	651630	3649147	168	70	98
L 13956 POD1	L	LE	1	3	4	35	15S	35E	651725	3648971	170	60	110
L 14040 POD1	L	LE	4	3	1	35	15S	35E	651073	3649706	120	55	65
L 14096 POD1	L	LE	3	2	4	31	15S	35E	645607	3649092	171	50	121
L 14235 POD1	L	LE	2	2	4	36	15S	35E	653937	3649565	186	125	61
L 14253 POD1	L	LE	3	2	4	36	15S	35E	653741	3649285	160	78	82
L 14262 POD1	L	LE	2	1	3	36	15S	35E	652738	3649485	150	65	85
L 14351 POD1	L	LE	2	4	1	35	15S	35E	651538	3649806	180	93	87
L 14465 POD1	L	LE	1	3	1	36	15S	35E	652524	3649882	180	58	122
L 14481 POD1	L	LE	1	2	2	24	15S	35E	653791	3653537	238	60	178
L 14481 POD2	L	LE	4	2	2	24	15S	35E	653873	3653292	252	60	192
L 14879 POD1	L	LE	2	3	1	35	15S	35E	651360	3629985	160	55	105
L 14901 POD1	L	LE	3	4	1	35	15S	35E	651307	3649679	160	55	105
L 15025 POD1	L	LE	1	2	3	36	15S	35E	652894	3649488	160	68	92
L 15070 POD1	L	LE	3	4	3	36	15S	35E	652876	3648933	175	68	107
L 15090 POD1	L	LE	4	4	4	31	15S	35E	645913	3648726	200	80	120
L 15090 POD2	L	LE	4	4	4	31	15S	35E	645803	3648784	200		
P 03010	P	RO	3	4	4	30	15S	35E	645619	3650352*		82	

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

Average Depth to Water: **61 feet**

Minimum Depth: **40 feet**

Maximum Depth: **125 feet**

Record Count: 195

PLSS Search:

Township: 15S **Range:** 35E

New Mexico Office of the State Engineer

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 Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 09372		2	3	07	15S	35E	644835	3655666*

Driller License:	421	**Driller Company:**	GLENN'S WATER WELL SERVICE		
Driller Name:	GLENN, CLARK A."CORKY" (LD)				
Drill Start Date:	11/11/1983	**Drill Finish Date:**	11/11/1983	**Plug Date:**	
Log File Date:	11/15/1983	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	100 GPM
Casing Size:	6.63	**Depth Well:**	150 feet	**Depth Water:**	75 feet

Water Bearing Stratifications:	Top	Bottom	Description
	80	150	Other/Unknown

Casing Perforations:	Top	Bottom
	130	150

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

New Mexico Office of the State Engineer
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 Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 06046	3	3	3	07	15S	35E	644333	3655153*

Driller License: 281 **Driller Company:** PRUETT, OTIS H.

Driller Name:

Drill Start Date: 09/26/1966 **Drill Finish Date:** 09/27/1966 **Plug Date:**

Log File Date: 11/02/1966 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 7.00 **Depth Well:** 104 feet **Depth Water:** 56 feet

Water Bearing Stratifications:	Top	Bottom	Description
	56	90	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	60	98

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

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 09555		4	3	07	15S	35E	644842	3655263*

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)
(NAD83 UTM in meters)

Driller License:	421	**Driller Company:**	GLENN'S WATER WELL SERVICE		
Driller Name:	GLENN, CLARK A."CORKY" (LD)				
Drill Start Date:	08/31/1984	**Drill Finish Date:**	08/31/1984	**Plug Date:**	11/06/1984
Log File Date:	09/05/1984	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	100 GPM
Casing Size:	6.63	**Depth Well:**	150 feet	**Depth Water:**	54 feet

Water Bearing Stratifications:	Top	Bottom	Description
	54	150	Other/Unknown

Casing Perforations:	Top	Bottom
	120	150

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

New Mexico Office of the State Engineer

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 Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 09523	1	1	4	07	15S	35E	645136	3655773*

Driller License:	882	**Driller Company:**	LARRY'S DRILLING & PUMP CO.		
Driller Name:	FELKINS, LARRY				
Drill Start Date:	07/05/1984	**Drill Finish Date:**	07/05/1984	**Plug Date:**	08/08/1985
Log File Date:	07/12/1984	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	70 GPM
Casing Size:	6.63	**Depth Well:**	140 feet	**Depth Water:**	57 feet

Water Bearing Stratifications:	Top	Bottom	Description
	90	140	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	100	140

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

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64 Q16 Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	L 03129		07	15S	35E	645037	3655857*

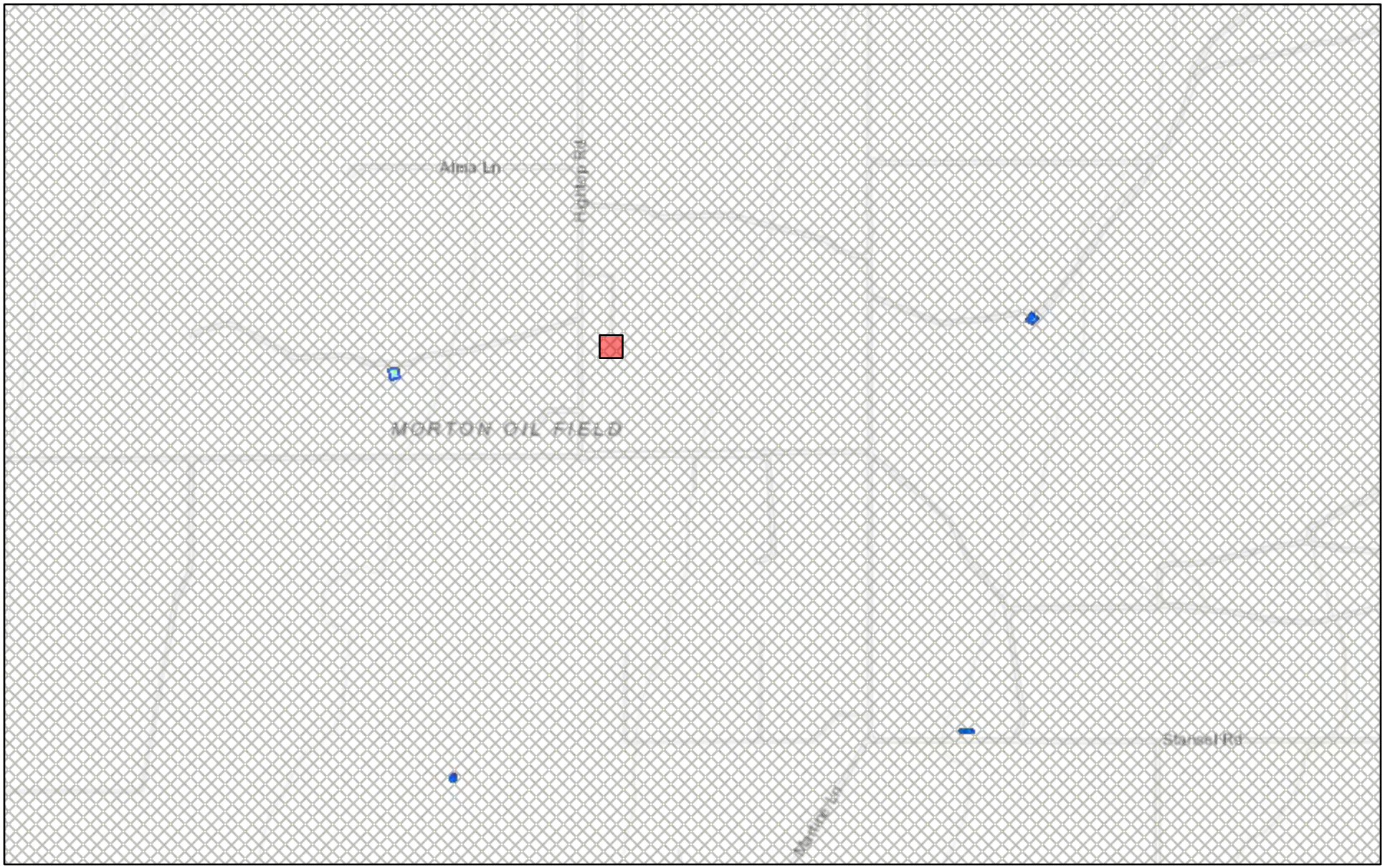
Driller License:	99	**Driller Company:**	O.R. MUSSELWHITE WATER WELL SE		
Driller Name:	MUSSELWHITE, O.R.				
Drill Start Date:	03/06/1956	**Drill Finish Date:**	03/07/1956	**Plug Date:**	03/01/1957
Log File Date:	04/02/1956	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	120 feet	**Depth Water:**	60 feet

Water Bearing Stratifications:	Top	Bottom	Description
	80	120	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	90	120

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

New Mexico NFHL Data



May 4, 2022

1:36,112

0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km

FEMA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

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APPENDIX D

CARMONA RESOURCES

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12040-1
Laboratory Sample Delivery Group: Lovington NM
Client Project/Site: Cabot Q SWD

For:
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Attn: Grant Huckabay

JKramer

Authorized for release by:
3/18/2022 1:28:53 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Laboratory Job ID: 880-12040-1
SDG: Lovington NM

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Definitions/Glossary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Job ID: 880-12040-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12040-1

Receipt
The samples were received on 3/4/2022 8:06 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

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20907 and analytical batch 880-21274 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20868 and analytical batch 880-20852 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH 2 (880-12040-6), BH 3 (880-12040-9), (MB 880-20868/1-A) and (880-12039-A-1-B MS). Evidence of matrix interferences is not obvious.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 1

Lab Sample ID: 880-12040-1
Matrix: Solid
Date Collected: 03/03/22 10:05
Date Received: 03/04/22 08:06
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 06:15	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 06:15	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 06:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/09/22 12:54	03/11/22 06:15	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 06:15	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/09/22 12:54	03/11/22 06:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/09/22 12:54*	*03/11/22 06:15*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/09/22 12:54*	*03/11/22 06:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**486**		50.0		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 00:12	1
Diesel Range Organics (Over C10-C28)	**486**		50.0		mg/Kg		03/04/22 10:04	03/05/22 00:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 00:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/04/22 10:04*	*03/05/22 00:12*	*1*
o-Terphenyl	*94*		*70 - 130*	*03/04/22 10:04*	*03/05/22 00:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8930**		99.8		mg/Kg			03/09/22 17:39	20

Client Sample ID: BH 1

Lab Sample ID: 880-12040-2
Matrix: Solid
Date Collected: 03/03/22 10:10
Date Received: 03/04/22 08:06
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 06:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 06:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 06:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/09/22 12:54	03/11/22 06:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 06:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/09/22 12:54	03/11/22 06:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*03/09/22 12:54*	*03/11/22 06:36*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 1

Date Collected: 03/03/22 10:10
Date Received: 03/04/22 08:06
Sample Depth: 1'

Lab Sample ID: 880-12040-2

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/09/22 12:54*	*03/11/22 06:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**241**		49.9		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 00:33	1
Diesel Range Organics (Over C10-C28)	**241**		49.9		mg/Kg		03/04/22 10:04	03/05/22 00:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 00:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*102*		*70 - 130*	*03/04/22 10:04*	*03/05/22 00:33*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/04/22 10:04*	*03/05/22 00:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9830**		100		mg/Kg			03/09/22 18:05	20

Client Sample ID: BH 1

Date Collected: 03/03/22 10:15
Date Received: 03/04/22 08:06
Sample Depth: 2'

Lab Sample ID: 880-12040-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 06:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 06:56	1
Ethylbenzene	**0.00855**		0.00200		mg/Kg		03/09/22 12:54	03/11/22 06:56	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/09/22 12:54	03/11/22 06:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 06:56	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/09/22 12:54	03/11/22 06:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*03/09/22 12:54*	*03/11/22 06:56*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/09/22 12:54*	*03/11/22 06:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00855**		0.00401		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**402**		50.0		mg/Kg			03/18/22 14:21	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 1

Date Collected: 03/03/22 10:15
Date Received: 03/04/22 08:06
Sample Depth: 2'

Lab Sample ID: 880-12040-3
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 00:54	1
Diesel Range Organics (Over C10-C28)	**402**		50.0		mg/Kg		03/04/22 10:04	03/05/22 00:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/04/22 10:04*	*03/05/22 00:54*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/04/22 10:04*	*03/05/22 00:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4670**		49.8		mg/Kg			03/09/22 18:14	10

Client Sample ID: BH 1

Date Collected: 03/03/22 10:20
Date Received: 03/04/22 08:06
Sample Depth: 2.25'

Lab Sample ID: 880-12040-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/09/22 12:54	03/11/22 07:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/09/22 12:54	03/11/22 07:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 12:54*	*03/11/22 07:17*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 12:54*	*03/11/22 07:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**383**		50.0		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 01:15	1
Diesel Range Organics (Over C10-C28)	**383**		50.0		mg/Kg		03/04/22 10:04	03/05/22 01:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*03/04/22 10:04*	*03/05/22 01:15*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/04/22 10:04*	*03/05/22 01:15*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 1

Lab Sample ID: 880-12040-4
Matrix: Solid
Date Collected: 03/03/22 10:20
Date Received: 03/04/22 08:06
Sample Depth: 2.25'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9350**		100		mg/Kg			03/09/22 18:23	20

Client Sample ID: BH 2

Lab Sample ID: 880-12040-5
Matrix: Solid
Date Collected: 03/03/22 10:25
Date Received: 03/04/22 08:06
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 07:37	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 07:37	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 07:37	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/09/22 12:54	03/11/22 07:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 07:37	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/09/22 12:54	03/11/22 07:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/09/22 12:54*	*03/11/22 07:37*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/09/22 12:54*	*03/11/22 07:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1110**		49.9		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 01:37	1
Diesel Range Organics (Over C10-C28)	**1110**		49.9		mg/Kg		03/04/22 10:04	03/05/22 01:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*03/04/22 10:04*	*03/05/22 01:37*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/04/22 10:04*	*03/05/22 01:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2910**		24.8		mg/Kg			03/09/22 18:32	5

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 2

Lab Sample ID: 880-12040-6
Matrix: Solid
Date Collected: 03/03/22 10:30
Date Received: 03/04/22 08:06
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/09/22 12:54	03/11/22 07:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 07:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/09/22 12:54	03/11/22 07:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/09/22 12:54*	*03/11/22 07:57*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/09/22 12:54*	*03/11/22 07:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1220**		49.9		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 01:59	1
Diesel Range Organics (Over C10-C28)	**1220**		49.9		mg/Kg		03/04/22 10:04	03/05/22 01:59	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*03/04/22 10:04*	*03/05/22 01:59*	*1*
o-Terphenyl	*139*	*S1+*	*70 - 130*	*03/04/22 10:04*	*03/05/22 01:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12400**		100		mg/Kg			03/09/22 18:41	20

Client Sample ID: BH 2

Lab Sample ID: 880-12040-7
Matrix: Solid
Date Collected: 03/03/22 10:35
Date Received: 03/04/22 08:06
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 08:18	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 08:18	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 08:18	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/09/22 12:54	03/11/22 08:18	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/09/22 12:54	03/11/22 08:18	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/09/22 12:54	03/11/22 08:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/09/22 12:54*	*03/11/22 08:18*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 2

Date Collected: 03/03/22 10:35
Date Received: 03/04/22 08:06
Sample Depth: 2'

Lab Sample ID: 880-12040-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/09/22 12:54*	*03/11/22 08:18*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**308**		50.0		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 02:20	1
Diesel Range Organics (Over C10-C28)	**308**		50.0		mg/Kg		03/04/22 10:04	03/05/22 02:20	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/04/22 10:04*	*03/05/22 02:20*	*1*
o-Terphenyl	*109*		*70 - 130*	*03/04/22 10:04*	*03/05/22 02:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82.9**		4.97		mg/Kg			03/09/22 18:50	1

Client Sample ID: BH 3

Date Collected: 03/03/22 10:40
Date Received: 03/04/22 08:06
Sample Depth: 0-6"

Lab Sample ID: 880-12040-8

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/09/22 12:54	03/11/22 08:38	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/09/22 12:54	03/11/22 08:38	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/09/22 12:54	03/11/22 08:38	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/09/22 12:54	03/11/22 08:38	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/09/22 12:54	03/11/22 08:38	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/09/22 12:54	03/11/22 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/09/22 12:54*	*03/11/22 08:38*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 12:54*	*03/11/22 08:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**89.1**		50.0		mg/Kg			03/18/22 14:21	1

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 3

Lab Sample ID: 880-12040-8
Matrix: Solid
Date Collected: 03/03/22 10:40
Date Received: 03/04/22 08:06
Sample Depth: 0-6"

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 02:41	1
Diesel Range Organics (Over C10-C28)	**89.1**		50.0		mg/Kg		03/04/22 10:04	03/05/22 02:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/05/22 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/04/22 10:04*	*03/05/22 02:41*	*1*
o-Terphenyl	*94*		*70 - 130*	*03/04/22 10:04*	*03/05/22 02:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.6**		4.96		mg/Kg			03/09/22 18:58	1

Client Sample ID: BH 3

Lab Sample ID: 880-12040-9
Matrix: Solid
Date Collected: 03/03/22 10:45
Date Received: 03/04/22 08:06
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 08:59	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 08:59	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 08:59	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/09/22 12:54	03/11/22 08:59	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/09/22 12:54	03/11/22 08:59	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/09/22 12:54	03/11/22 08:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/09/22 12:54*	*03/11/22 08:59*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/09/22 12:54*	*03/11/22 08:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**214**		49.9		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 03:02	1
Diesel Range Organics (Over C10-C28)	**214**		49.9		mg/Kg		03/04/22 10:04	03/05/22 03:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*03/04/22 10:04*	*03/05/22 03:02*	*1*
o-Terphenyl	*135*	*S1+*	*70 - 130*	*03/04/22 10:04*	*03/05/22 03:02*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 3

Lab Sample ID: 880-12040-9
Matrix: Solid
Date Collected: 03/03/22 10:45
Date Received: 03/04/22 08:06
Sample Depth: 1'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1390**		100		mg/Kg			03/09/22 20:09	20

Client Sample ID: BH 3

Lab Sample ID: 880-12040-10
Matrix: Solid
Date Collected: 03/03/22 10:50
Date Received: 03/04/22 08:06
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 09:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 09:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 09:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/09/22 12:54	03/11/22 09:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/09/22 12:54	03/11/22 09:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/09/22 12:54	03/11/22 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/09/22 12:54*	*03/11/22 09:19*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/09/22 12:54*	*03/11/22 09:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/11/22 10:57	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**114**		49.9		mg/Kg			03/18/22 14:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 03:24	1
Diesel Range Organics (Over C10-C28)	**114**		49.9		mg/Kg		03/04/22 10:04	03/05/22 03:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:04	03/05/22 03:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/04/22 10:04*	*03/05/22 03:24*	*1*
o-Terphenyl	*96*		*70 - 130*	*03/04/22 10:04*	*03/05/22 03:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**834**		49.9		mg/Kg			03/09/22 20:36	10

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-12039-A-1-E MS	Matrix Spike	102	104
880-12039-A-1-F MSD	Matrix Spike Duplicate	101	94
880-12040-1	BH 1	116	96
880-12040-2	BH 1	115	96
880-12040-3	BH 1	98	95
880-12040-4	BH 1	99	99
880-12040-5	BH 2	111	100
880-12040-6	BH 2	110	95
880-12040-7	BH 2	102	96
880-12040-8	BH 3	108	99
880-12040-9	BH 3	102	103
880-12040-10	BH 3	112	98
LCS 880-20907/1-A	Lab Control Sample	101	103
LCSD 880-20907/2-A	Lab Control Sample Dup	95	101
MB 880-20907/5-A	Method Blank	97	102
MB 880-21130/5-A	Method Blank	97	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-12039-A-1-B MS	Matrix Spike	140 S1+	119
880-12039-A-1-C MSD	Matrix Spike Duplicate	118	97
880-12040-1	BH 1	102	94
880-12040-2	BH 1	102	97
880-12040-3	BH 1	104	99
880-12040-4	BH 1	114	114
880-12040-5	BH 2	121	114
880-12040-6	BH 2	133 S1+	139 S1+
880-12040-7	BH 2	108	109
880-12040-8	BH 3	101	94
880-12040-9	BH 3	131 S1+	135 S1+
880-12040-10	BH 3	101	96
LCS 880-20868/2-A	Lab Control Sample	108	93
LCSD 880-20868/3-A	Lab Control Sample Dup	103	91
MB 880-20868/1-A	Method Blank	127	132 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20907/5-A
Matrix: Solid
Analysis Batch: 21274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 00:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 00:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 00:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/09/22 12:54	03/11/22 00:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 12:54	03/11/22 00:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/09/22 12:54	03/11/22 00:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/09/22 12:54*	*03/11/22 00:52*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/09/22 12:54*	*03/11/22 00:52*	*1*

Lab Sample ID: LCS 880-20907/1-A
Matrix: Solid
Analysis Batch: 21274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1056		mg/Kg		106	70 - 130
Toluene	0.100	0.1028		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2388		mg/Kg		119	70 - 130
o-Xylene	0.100	0.1185		mg/Kg		118	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-20907/2-A
Matrix: Solid
Analysis Batch: 21274

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20907

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09404		mg/Kg		94	70 - 130	12	35
Toluene	0.100	0.09242		mg/Kg		92	70 - 130	11	35
Ethylbenzene	0.100	0.09265		mg/Kg		93	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2147		mg/Kg		107	70 - 130	11	35
o-Xylene	0.100	0.1068		mg/Kg		107	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-12039-A-1-E MS
Matrix: Solid
Analysis Batch: 21274

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F2 F1	0.100	0.08083		mg/Kg		81	70 - 130
Toluene	<0.00199	U F2 F1	0.100	0.07966		mg/Kg		80	70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

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

Lab Sample ID: 880-12039-A-1-E MS
Matrix: Solid
Analysis Batch: 21274

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F2 F1	0.100	0.07972		mg/Kg		80	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1859		mg/Kg		93	70 - 130
o-Xylene	<0.00199	U F2 F1	0.100	0.09260		mg/Kg		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-12039-A-1-F MSD
Matrix: Solid
Analysis Batch: 21274

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.0998	0.02695	F2 F1	mg/Kg		27	70 - 130	100	35
Toluene	<0.00199	U F2 F1	0.0998	0.03091	F2 F1	mg/Kg		31	70 - 130	88	35
Ethylbenzene	<0.00199	U F2 F1	0.0998	0.03175	F2 F1	mg/Kg		32	70 - 130	86	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.07086	F2 F1	mg/Kg		35	70 - 130	90	35
o-Xylene	<0.00199	U F2 F1	0.0998	0.04060	F2 F1	mg/Kg		41	70 - 130	78	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: MB 880-21130/5-A
Matrix: Solid
Analysis Batch: 21274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21130

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/10/22 07:30	03/10/22 12:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/10/22 07:30	03/10/22 12:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/10/22 07:30	03/10/22 12:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/10/22 07:30	03/10/22 12:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/10/22 07:30	03/10/22 12:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/10/22 07:30	03/10/22 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/10/22 07:30*	*03/10/22 12:03*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/10/22 07:30*	*03/10/22 12:03*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20868/1-A
Matrix: Solid
Analysis Batch: 20852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/04/22 18:40	1

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20868/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20852 — **Prep Batch: 20868**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/04/22 18:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:04	03/04/22 18:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*03/04/22 10:04*	*03/04/22 18:40*	*1*
o-Terphenyl	*132*	*S1+*	*70 - 130*	*03/04/22 10:04*	*03/04/22 18:40*	*1*

Lab Sample ID: LCS 880-20868/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20852 — **Prep Batch: 20868**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1216		mg/Kg		122	70 - 130
Diesel Range Organics (Over C10-C28)	1000	883.7		mg/Kg		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Lab Sample ID: LCSD 880-20868/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20852 — **Prep Batch: 20868**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1184		mg/Kg		118	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	856.5		mg/Kg		86	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: 880-12039-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20852 — **Prep Batch: 20868**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1708	F1	mg/Kg		166	70 - 130
Diesel Range Organics (Over C10-C28)	60.3	F1 F2	1000	1390	F1	mg/Kg		133	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*140*	*S1+*	*70 - 130*
o-Terphenyl	*119*		*70 - 130*

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-12039-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20852 — **Prep Batch: 20868**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1494	F1	mg/Kg		145	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	60.3	F1 F2	998	1125	F2	mg/Kg		107	70 - 130	21	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20876/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 14:32	1

Lab Sample ID: LCS 880-20876/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	250.4		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-20876/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	250.6		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-12039-A-9-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	756		1250	2062		mg/Kg		105	90 - 110

Lab Sample ID: 880-12039-A-9-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	756		1250	2034		mg/Kg		102	90 - 110	1	20

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-21027/1-A
Matrix: Solid
Analysis Batch: 21142

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 19:43	1

Lab Sample ID: LCS 880-21027/2-A
Matrix: Solid
Analysis Batch: 21142

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	244.3		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-21027/3-A
Matrix: Solid
Analysis Batch: 21142

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	243.9		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 880-12040-9 MS
Matrix: Solid
Analysis Batch: 21142

Client Sample ID: BH 3
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1390		5000	6573		mg/Kg		104	90 - 110		

Lab Sample ID: 880-12040-9 MSD
Matrix: Solid
Analysis Batch: 21142

Client Sample ID: BH 3
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1390		5000	6416		mg/Kg		100	90 - 110	2	20

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

GC VOA

Prep Batch: 20907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Total/NA	Solid	5035	
880-12040-2	BH 1	Total/NA	Solid	5035	
880-12040-3	BH 1	Total/NA	Solid	5035	
880-12040-4	BH 1	Total/NA	Solid	5035	
880-12040-5	BH 2	Total/NA	Solid	5035	
880-12040-6	BH 2	Total/NA	Solid	5035	
880-12040-7	BH 2	Total/NA	Solid	5035	
880-12040-8	BH 3	Total/NA	Solid	5035	
880-12040-9	BH 3	Total/NA	Solid	5035	
880-12040-10	BH 3	Total/NA	Solid	5035	
MB 880-20907/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20907/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20907/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12039-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-12039-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 21130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-21130/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 21274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Total/NA	Solid	8021B	20907
880-12040-2	BH 1	Total/NA	Solid	8021B	20907
880-12040-3	BH 1	Total/NA	Solid	8021B	20907
880-12040-4	BH 1	Total/NA	Solid	8021B	20907
880-12040-5	BH 2	Total/NA	Solid	8021B	20907
880-12040-6	BH 2	Total/NA	Solid	8021B	20907
880-12040-7	BH 2	Total/NA	Solid	8021B	20907
880-12040-8	BH 3	Total/NA	Solid	8021B	20907
880-12040-9	BH 3	Total/NA	Solid	8021B	20907
880-12040-10	BH 3	Total/NA	Solid	8021B	20907
MB 880-20907/5-A	Method Blank	Total/NA	Solid	8021B	20907
MB 880-21130/5-A	Method Blank	Total/NA	Solid	8021B	21130
LCS 880-20907/1-A	Lab Control Sample	Total/NA	Solid	8021B	20907
LCSD 880-20907/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20907
880-12039-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	20907
880-12039-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20907

Analysis Batch: 21389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Total/NA	Solid	Total BTEX	
880-12040-2	BH 1	Total/NA	Solid	Total BTEX	
880-12040-3	BH 1	Total/NA	Solid	Total BTEX	
880-12040-4	BH 1	Total/NA	Solid	Total BTEX	
880-12040-5	BH 2	Total/NA	Solid	Total BTEX	
880-12040-6	BH 2	Total/NA	Solid	Total BTEX	
880-12040-7	BH 2	Total/NA	Solid	Total BTEX	
880-12040-8	BH 3	Total/NA	Solid	Total BTEX	
880-12040-9	BH 3	Total/NA	Solid	Total BTEX	
880-12040-10	BH 3	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

GC Semi VOA

Analysis Batch: 20852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Total/NA	Solid	8015B NM	20868
880-12040-2	BH 1	Total/NA	Solid	8015B NM	20868
880-12040-3	BH 1	Total/NA	Solid	8015B NM	20868
880-12040-4	BH 1	Total/NA	Solid	8015B NM	20868
880-12040-5	BH 2	Total/NA	Solid	8015B NM	20868
880-12040-6	BH 2	Total/NA	Solid	8015B NM	20868
880-12040-7	BH 2	Total/NA	Solid	8015B NM	20868
880-12040-8	BH 3	Total/NA	Solid	8015B NM	20868
880-12040-9	BH 3	Total/NA	Solid	8015B NM	20868
880-12040-10	BH 3	Total/NA	Solid	8015B NM	20868
MB 880-20868/1-A	Method Blank	Total/NA	Solid	8015B NM	20868
LCS 880-20868/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20868
LCSD 880-20868/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20868
880-12039-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	20868
880-12039-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20868

Prep Batch: 20868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Total/NA	Solid	8015NM Prep	
880-12040-2	BH 1	Total/NA	Solid	8015NM Prep	
880-12040-3	BH 1	Total/NA	Solid	8015NM Prep	
880-12040-4	BH 1	Total/NA	Solid	8015NM Prep	
880-12040-5	BH 2	Total/NA	Solid	8015NM Prep	
880-12040-6	BH 2	Total/NA	Solid	8015NM Prep	
880-12040-7	BH 2	Total/NA	Solid	8015NM Prep	
880-12040-8	BH 3	Total/NA	Solid	8015NM Prep	
880-12040-9	BH 3	Total/NA	Solid	8015NM Prep	
880-12040-10	BH 3	Total/NA	Solid	8015NM Prep	
MB 880-20868/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20868/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20868/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12039-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12039-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Total/NA	Solid	8015 NM	
880-12040-2	BH 1	Total/NA	Solid	8015 NM	
880-12040-3	BH 1	Total/NA	Solid	8015 NM	
880-12040-4	BH 1	Total/NA	Solid	8015 NM	
880-12040-5	BH 2	Total/NA	Solid	8015 NM	
880-12040-6	BH 2	Total/NA	Solid	8015 NM	
880-12040-7	BH 2	Total/NA	Solid	8015 NM	
880-12040-8	BH 3	Total/NA	Solid	8015 NM	
880-12040-9	BH 3	Total/NA	Solid	8015 NM	
880-12040-10	BH 3	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

HPLC/IC

Leach Batch: 20876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Soluble	Solid	DI Leach	
880-12040-2	BH 1	Soluble	Solid	DI Leach	
880-12040-3	BH 1	Soluble	Solid	DI Leach	
880-12040-4	BH 1	Soluble	Solid	DI Leach	
880-12040-5	BH 2	Soluble	Solid	DI Leach	
880-12040-6	BH 2	Soluble	Solid	DI Leach	
880-12040-7	BH 2	Soluble	Solid	DI Leach	
880-12040-8	BH 3	Soluble	Solid	DI Leach	
MB 880-20876/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20876/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20876/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12039-A-9-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12039-A-9-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 21027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-9	BH 3	Soluble	Solid	DI Leach	
880-12040-10	BH 3	Soluble	Solid	DI Leach	
MB 880-21027/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21027/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21027/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12040-9 MS	BH 3	Soluble	Solid	DI Leach	
880-12040-9 MSD	BH 3	Soluble	Solid	DI Leach	

Analysis Batch: 21141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-1	BH 1	Soluble	Solid	300.0	20876
880-12040-2	BH 1	Soluble	Solid	300.0	20876
880-12040-3	BH 1	Soluble	Solid	300.0	20876
880-12040-4	BH 1	Soluble	Solid	300.0	20876
880-12040-5	BH 2	Soluble	Solid	300.0	20876
880-12040-6	BH 2	Soluble	Solid	300.0	20876
880-12040-7	BH 2	Soluble	Solid	300.0	20876
880-12040-8	BH 3	Soluble	Solid	300.0	20876
MB 880-20876/1-A	Method Blank	Soluble	Solid	300.0	20876
LCS 880-20876/2-A	Lab Control Sample	Soluble	Solid	300.0	20876
LCSD 880-20876/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20876
880-12039-A-9-E MS	Matrix Spike	Soluble	Solid	300.0	20876
880-12039-A-9-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20876

Analysis Batch: 21142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12040-9	BH 3	Soluble	Solid	300.0	21027
880-12040-10	BH 3	Soluble	Solid	300.0	21027
MB 880-21027/1-A	Method Blank	Soluble	Solid	300.0	21027
LCS 880-21027/2-A	Lab Control Sample	Soluble	Solid	300.0	21027
LCSD 880-21027/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21027
880-12040-9 MS	BH 3	Soluble	Solid	300.0	21027
880-12040-9 MSD	BH 3	Soluble	Solid	300.0	21027

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 1
Date Collected: 03/03/22 10:05
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12040-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 06:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 00:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		20			21141	03/09/22 17:39	CH	XEN MID

Client Sample ID: BH 1
Date Collected: 03/03/22 10:10
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12040-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 06:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 00:33	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		20			21141	03/09/22 18:05	CH	XEN MID

Client Sample ID: BH 1
Date Collected: 03/03/22 10:15
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12040-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 06:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 00:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		10			21141	03/09/22 18:14	CH	XEN MID

Client Sample ID: BH 1
Date Collected: 03/03/22 10:20
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 07:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 1

Lab Sample ID: 880-12040-4
Matrix: Solid
Date Collected: 03/03/22 10:20
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 01:15	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		20			21141	03/09/22 18:23	CH	XEN MID

Client Sample ID: BH 2

Lab Sample ID: 880-12040-5
Matrix: Solid
Date Collected: 03/03/22 10:25
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 07:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 01:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		5			21141	03/09/22 18:32	CH	XEN MID

Client Sample ID: BH 2

Lab Sample ID: 880-12040-6
Matrix: Solid
Date Collected: 03/03/22 10:30
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 07:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 01:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		20			21141	03/09/22 18:41	CH	XEN MID

Client Sample ID: BH 2

Lab Sample ID: 880-12040-7
Matrix: Solid
Date Collected: 03/03/22 10:35
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 08:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 02:20	AJ	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Client Sample ID: BH 2

Lab Sample ID: 880-12040-7
Matrix: Solid
Date Collected: 03/03/22 10:35
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		1			21141	03/09/22 18:50	CH	XEN MID

Client Sample ID: BH 3

Lab Sample ID: 880-12040-8
Matrix: Solid
Date Collected: 03/03/22 10:40
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 08:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 02:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		1			21141	03/09/22 18:58	CH	XEN MID

Client Sample ID: BH 3

Lab Sample ID: 880-12040-9
Matrix: Solid
Date Collected: 03/03/22 10:45
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 08:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 03:02	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21027	03/07/22 10:42	CH	XEN MID
Soluble	Analysis	300.0		20			21142	03/09/22 20:09	CH	XEN MID

Client Sample ID: BH 3

Lab Sample ID: 880-12040-10
Matrix: Solid
Date Collected: 03/03/22 10:50
Date Received: 03/04/22 08:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20907	03/09/22 12:54	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21274	03/11/22 09:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21389	03/11/22 10:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21912	03/18/22 14:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20868	03/04/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20852	03/05/22 03:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21027	03/07/22 10:42	CH	XEN MID
Soluble	Analysis	300.0		10			21142	03/09/22 20:36	CH	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12040-1
SDG: Lovington NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12040-1	BH 1	Solid	03/03/22 10:05	03/04/22 08:06	0-6"
880-12040-2	BH 1	Solid	03/03/22 10:10	03/04/22 08:06	1'
880-12040-3	BH 1	Solid	03/03/22 10:15	03/04/22 08:06	2'
880-12040-4	BH 1	Solid	03/03/22 10:20	03/04/22 08:06	2.25'
880-12040-5	BH 2	Solid	03/03/22 10:25	03/04/22 08:06	0-6"
880-12040-6	BH 2	Solid	03/03/22 10:30	03/04/22 08:06	1'
880-12040-7	BH 2	Solid	03/03/22 10:35	03/04/22 08:06	2'
880-12040-8	BH 3	Solid	03/03/22 10:40	03/04/22 08:06	0-6"
880-12040-9	BH 3	Solid	03/03/22 10:45	03/04/22 08:06	1'
880-12040-10	BH 3	Solid	03/03/22 10:50	03/04/22 08:06	2'

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Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

880-12040 Chain of Custody

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Project Manager	Grant Huckabay	Bill to (if different)	
Company Name	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address	
City, State ZIP	Midland TX 79707	City, State ZIP	
Phone	432-288-5529	Email	granth@forl.com, Addisong@forl.com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT R SWD	Turn Around		Pres Code	
Project Number		☒ Routine ☐ Rush			
Project Location		Due Date	3/10/22		
Sampler's Name	Addison Guelker	TAT starts the day received by the lab if received by 4 30pm			
PO #					

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-.1	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	5.6	
Total Containers.		Corrected Temperature	5.5	

Preservative Codes

None NO | DI Water H_2O
Cool Cool | MeOH Me
HCL HC | HNO_3 HN
H_2S0_4 H_2 | NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: TPH 8015M	BTEX 8021B	CHLORIDE	Sample Comments
BH1	S	[illegible]	10.05A	0 6"	G	1	X	X	X	
BH1		3/3/22	10 10A	1'						
BH1			10-15A	2'						
BH1			10-20A	2 25'						
BH2			10-25A	0-6"						
BH2			10 30A	1'						
BH2			10-35A	2'						
BH3			10-40A	0-6"						
BH3			10 45A	1'						
BH3			10-50A	2'						

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed These terms will be enforced unless previously negotiated

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 [signature]	[signature]	3/4/22 8:06	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12038-1
Client Project/Site: Cabot Q SWD

For:
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Attn: Grant Huckabay

JKramer

Authorized for release by:
3/14/2022 6:44:59 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Laboratory Job ID: 880-12038-1

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Definitions/Glossary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Job ID: 880-12038-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12038-1

Receipt
The samples were received on 3/4/2022 8:06 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

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20797 and analytical batch 880-21009 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Batch preparation batch 880-21114 and analytical batch 880-21110 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, and this test was not reportable. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

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

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-20869 and analytical batch 880-21379 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH 4 (880-12038-2). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-20875 and analytical batch 880-21049 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-20876 and analytical batch 880-21141 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 4

Date Collected: 03/03/22 11:00
Date Received: 03/04/22 08:06
Sample Depth: 0-6"

Lab Sample ID: 880-12038-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 10:47	03/08/22 01:26	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 10:47	03/08/22 01:26	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 10:47	03/08/22 01:26	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/07/22 10:47	03/08/22 01:26	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 10:47	03/08/22 01:26	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/07/22 10:47	03/08/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 10:47*	*03/08/22 01:26*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 10:47*	*03/08/22 01:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 10:01	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 02:52	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		03/04/22 10:08	03/12/22 02:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/04/22 10:08*	*03/12/22 02:52*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/04/22 10:08*	*03/12/22 02:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2270**		25.0		mg/Kg			03/09/22 14:49	5

Client Sample ID: BH 4

Date Collected: 03/03/22 11:05
Date Received: 03/04/22 08:06
Sample Depth: 1'

Lab Sample ID: 880-12038-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 01:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 01:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 01:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 10:47	03/08/22 01:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 01:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 10:47	03/08/22 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/07/22 10:47*	*03/08/22 01:47*	*1*

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 4

Date Collected: 03/03/22 11:05
Date Received: 03/04/22 08:06
Sample Depth: 1'

Lab Sample ID: 880-12038-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/07/22 10:47*	*03/08/22 01:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 10:01	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 03:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/04/22 10:08	03/12/22 03:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*03/04/22 10:08*	*03/12/22 03:14*	*1*
o-Terphenyl	*135*	*S1+*	*70 - 130*	*03/04/22 10:08*	*03/12/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1110**		25.0		mg/Kg			03/09/22 14:55	5

Client Sample ID: BH 4

Date Collected: 03/03/22 11:10
Date Received: 03/04/22 08:06
Sample Depth: 2'

Lab Sample ID: 880-12038-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 10:47	03/08/22 02:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 10:47	03/08/22 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/07/22 10:47*	*03/08/22 02:07*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/07/22 10:47*	*03/08/22 02:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 10:01	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 4

Lab Sample ID: 880-12038-3
Matrix: Solid
Date Collected: 03/03/22 11:10
Date Received: 03/04/22 08:06
Sample Depth: 2'

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 03:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		03/04/22 10:08	03/12/22 03:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*03/04/22 10:08*	*03/12/22 03:35*	*1*
o-Terphenyl	*128*		*70 - 130*	*03/04/22 10:08*	*03/12/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2310**		50.1		mg/Kg			03/09/22 15:00	10

Client Sample ID: BH 4

Lab Sample ID: 880-12038-4
Matrix: Solid
Date Collected: 03/03/22 11:15
Date Received: 03/04/22 08:06
Sample Depth: 2.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 10:47	03/08/22 02:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 02:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 10:47	03/08/22 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/07/22 10:47*	*03/08/22 02:28*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/07/22 10:47*	*03/08/22 02:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 10:01	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 03:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		03/04/22 10:08	03/12/22 03:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/04/22 10:08*	*03/12/22 03:57*	*1*
o-Terphenyl	*118*		*70 - 130*	*03/04/22 10:08*	*03/12/22 03:57*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 4

Lab Sample ID: 880-12038-4
Matrix: Solid
Date Collected: 03/03/22 11:15
Date Received: 03/04/22 08:06
Sample Depth: 2.5'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	936		24.8		mg/Kg			03/09/22 15:06	5

Client Sample ID: BH 5

Lab Sample ID: 880-12038-5
Matrix: Solid
Date Collected: 03/03/22 11:20
Date Received: 03/04/22 08:06
Sample Depth: 0-6'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 10:47	03/08/22 02:48	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 10:47	03/08/22 02:48	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 10:47	03/08/22 02:48	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 10:47	03/08/22 02:48	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 10:47	03/08/22 02:48	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 10:47	03/08/22 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*03/07/22 10:47*	*03/08/22 02:48*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*03/07/22 10:47*	*03/08/22 02:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 10:01	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 04:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/04/22 10:08	03/12/22 04:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*03/04/22 10:08*	*03/12/22 04:18*	*1*
o-Terphenyl	*128*		*70 - 130*	*03/04/22 10:08*	*03/12/22 04:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		4.97		mg/Kg			03/09/22 15:12	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 5

Date Collected: 03/03/22 11:25
Date Received: 03/04/22 08:06
Sample Depth: 1'

Lab Sample ID: 880-12038-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/08/22 08:59	03/08/22 16:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/08/22 08:59	03/08/22 16:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/08/22 08:59	03/08/22 16:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/08/22 08:59	03/08/22 16:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/08/22 08:59	03/08/22 16:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/08/22 08:59	03/08/22 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/08/22 08:59*	*03/08/22 16:58*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/08/22 08:59*	*03/08/22 16:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 10:01	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 04:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/04/22 10:08	03/12/22 04:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*03/04/22 10:08*	*03/12/22 04:40*	*1*
o-Terphenyl	*130*		*70 - 130*	*03/04/22 10:08*	*03/12/22 04:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1780**		24.8		mg/Kg			03/09/22 15:18	5

Client Sample ID: BH 5

Date Collected: 03/03/22 11:30
Date Received: 03/04/22 08:06
Sample Depth: 2'

Lab Sample ID: 880-12038-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 04:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 04:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 04:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 10:47	03/08/22 04:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/08/22 04:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 10:47	03/08/22 04:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 10:47*	*03/08/22 04:59*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 5

Date Collected: 03/03/22 11:30
Date Received: 03/04/22 08:06
Sample Depth: 2'

Lab Sample ID: 880-12038-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/07/22 10:47*	*03/08/22 04:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 10:01	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 05:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/04/22 10:08	03/12/22 05:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/12/22 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/04/22 10:08*	*03/12/22 05:01*	*1*
o-Terphenyl	*124*		*70 - 130*	*03/04/22 10:08*	*03/12/22 05:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1120**	**F1**	25.1		mg/Kg			03/09/22 14:59	5

Client Sample ID: BH 5

Date Collected: 03/03/22 11:35
Date Received: 03/04/22 08:06
Sample Depth: 2.5'

Lab Sample ID: 880-12038-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 05:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 05:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 05:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 10:47	03/08/22 05:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 10:47	03/08/22 05:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 10:47	03/08/22 05:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 10:47*	*03/08/22 05:19*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 10:47*	*03/08/22 05:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/08/22 10:50	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 10:01	1

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 5

Date Collected: 03/03/22 11:35
Date Received: 03/04/22 08:06
Sample Depth: 2.5'

Lab Sample ID: 880-12038-8

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 05:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		03/04/22 10:08	03/12/22 05:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 10:08	03/12/22 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/04/22 10:08*	*03/12/22 05:23*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/04/22 10:08*	*03/12/22 05:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**969**		24.9		mg/Kg			03/09/22 15:26	5

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-12038-1	BH 4	101	97
880-12038-2	BH 4	113	96
880-12038-3	BH 4	107	93
880-12038-4	BH 4	106	93
880-12038-5	BH 5	91	91
880-12038-6	BH 5	105	101
880-12038-7	BH 5	103	93
880-12038-8	BH 5	109	103
880-12112-A-1-C MSD	Matrix Spike Duplicate	105	102
880-12112-A-1-D MS	Matrix Spike	102	101
890-2047-A-1-B MS	Matrix Spike	104	96
890-2047-A-1-C MSD	Matrix Spike Duplicate	104	90
LCS 880-20797/1-A	Lab Control Sample	97	101
LCS 880-21114/1-A	Lab Control Sample	97	101
LCSD 880-20797/2-A	Lab Control Sample Dup	97	101
LCSD 880-21114/2-A	Lab Control Sample Dup	96	98
MB 880-20686/5-A	Method Blank	96	98
MB 880-20797/5-A	Method Blank	97	98
MB 880-21114/5-A	Method Blank	98	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-12025-A-1-B MS	Matrix Spike	110	113
880-12025-A-1-C MSD	Matrix Spike Duplicate	106	110
880-12038-1	BH 4	109	121
880-12038-2	BH 4	120	135 S1+
880-12038-3	BH 4	115	128
880-12038-4	BH 4	106	118
880-12038-5	BH 5	128	128
880-12038-6	BH 5	117	130
880-12038-7	BH 5	113	124
880-12038-8	BH 5	109	122

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-20869/2-A	Lab Control Sample	87	95
LCSD 880-20869/3-A	Lab Control Sample Dup	109	122
MB 880-20869/1-A	Method Blank	102	118

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20686/5-A
Matrix: Solid
Analysis Batch: 21009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20686

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/02/22 13:10	03/07/22 11:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/02/22 13:10	03/07/22 11:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/02/22 13:10	03/07/22 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/02/22 13:10	03/07/22 11:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/02/22 13:10	03/07/22 11:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/02/22 13:10	03/07/22 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*03/02/22 13:10*	*03/07/22 11:39*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/02/22 13:10*	*03/07/22 11:39*	*1*

Lab Sample ID: MB 880-20797/5-A
Matrix: Solid
Analysis Batch: 21009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20797

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/07/22 23:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/07/22 23:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/07/22 23:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 10:47	03/07/22 23:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 10:47	03/07/22 23:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 10:47	03/07/22 23:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 10:47*	*03/07/22 23:16*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 10:47*	*03/07/22 23:16*	*1*

Lab Sample ID: LCS 880-20797/1-A
Matrix: Solid
Analysis Batch: 21009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20797

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1036		mg/Kg		104	70 - 130
Toluene	0.100	0.09792		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09697		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2252		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1105		mg/Kg		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-20797/2-A
Matrix: Solid
Analysis Batch: 21009

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20797

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1030		mg/Kg		103	70 - 130	1	35

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

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

Lab Sample ID: LCSD 880-20797/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21009 — **Prep Batch: 20797**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.09659		mg/Kg		97	70 - 130	1	35
Ethylbenzene			0.100	0.09538		mg/Kg		95	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2214		mg/Kg		111	70 - 130	2	35
o-Xylene			0.100	0.1088		mg/Kg		109	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-2047-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21009 — **Prep Batch: 20797**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F2 F1	0.101	0.04972	F1	mg/Kg		49	70 - 130
Toluene	0.00238	F1	0.101	0.05509	F1	mg/Kg		52	70 - 130
Ethylbenzene	<0.00200	U F1	0.101	0.05465	F1	mg/Kg		52	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.201	0.1300	F1	mg/Kg		64	70 - 130
o-Xylene	<0.00200	U F1	0.101	0.06687	F1	mg/Kg		65	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-2047-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21009 — **Prep Batch: 20797**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.100	0.03398	F2 F1	mg/Kg		34	70 - 130	38	35
Toluene	0.00238	F1	0.100	0.04041	F1	mg/Kg		38	70 - 130	31	35
Ethylbenzene	<0.00200	U F1	0.100	0.04043	F1	mg/Kg		39	70 - 130	30	35
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.09428	F1	mg/Kg		46	70 - 130	32	35
o-Xylene	<0.00200	U F1	0.100	0.05086	F1	mg/Kg		50	70 - 130	27	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: MB 880-21114/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21110 — **Prep Batch: 21114**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/08/22 08:59	03/08/22 15:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/08/22 08:59	03/08/22 15:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/08/22 08:59	03/08/22 15:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/08/22 08:59	03/08/22 15:07	1

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

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

Lab Sample ID: MB 880-21114/5-A
Matrix: Solid
Analysis Batch: 21110

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21114

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/08/22 08:59	03/08/22 15:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/08/22 08:59	03/08/22 15:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*03/08/22 08:59*	*03/08/22 15:07*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/08/22 08:59*	*03/08/22 15:07*	*1*

Lab Sample ID: LCS 880-21114/1-A
Matrix: Solid
Analysis Batch: 21110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1005		mg/Kg		101	70 - 130
Toluene	0.100	0.09834		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09830		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.2302		mg/Kg		115	70 - 130
o-Xylene	0.100	0.1115		mg/Kg		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-21114/2-A
Matrix: Solid
Analysis Batch: 21110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21114

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09654		mg/Kg		97	70 - 130	4	35
Toluene	0.100	0.09767		mg/Kg		98	70 - 130	1	35
Ethylbenzene	0.100	0.09749		mg/Kg		97	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2285		mg/Kg		114	70 - 130	1	35
o-Xylene	0.100	0.1112		mg/Kg		111	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-12112-A-1-C MSD
Matrix: Solid
Analysis Batch: 21110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21114

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.09620		mg/Kg					
Toluene	0.00280		0.100	0.08505		mg/Kg					
Ethylbenzene	0.00736		0.100	0.07556		mg/Kg					
m-Xylene & p-Xylene	0.0251		0.201	0.1742		mg/Kg					
o-Xylene	0.0134		0.100	0.08581		mg/Kg					

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

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

Lab Sample ID: 880-12112-A-1-C MSD
Matrix: Solid
Analysis Batch: 21110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21114

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-12112-A-1-D MS
Matrix: Solid
Analysis Batch: 21110

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21114

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20869/1-A
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20869

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/11/22 21:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/11/22 21:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 10:08	03/11/22 21:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	03/04/22 10:08	03/11/22 21:09	1
o-Terphenyl	118		70 - 130	03/04/22 10:08	03/11/22 21:09	1

Lab Sample ID: LCS 880-20869/2-A
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20869

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1111		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	1000	792.3		mg/Kg		79	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: LCSD 880-20869/3-A
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20869

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1070		mg/Kg		107	70 - 130	4	20

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-20869/3-A
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20869

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	1006	*1	mg/Kg		101	70 - 130	24	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*122*		*70 - 130*

Lab Sample ID: 880-12025-A-1-B MS
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20869

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1070		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	1000	1009		mg/Kg		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*110*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 880-12025-A-1-C MSD
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20869

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1014		mg/Kg		98	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	998	978.5		mg/Kg		94	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20875/1-A
Matrix: Solid
Analysis Batch: 21049

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 12:21	1

Lab Sample ID: LCS 880-20875/2-A
Matrix: Solid
Analysis Batch: 21049

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	253.2		mg/Kg		101	90 - 110

Eurofins Midland

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-20875/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21049

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	264.4		mg/Kg		106	90 - 110	4	20

Lab Sample ID: 880-12035-A-11-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21049

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2820	F1	1240	4250	F1	mg/Kg		115	90 - 110		

Lab Sample ID: 880-12035-A-11-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21049

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2820	F1	1240	4276	F1	mg/Kg		117	90 - 110	1	20

Lab Sample ID: 880-12036-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21049

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	5710	F1	2500	9536	F1	mg/Kg		153	90 - 110		

Lab Sample ID: 880-12036-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21049

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5710	F1	2500	9393	F1	mg/Kg		147	90 - 110	2	20

Lab Sample ID: MB 880-20876/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 14:32	1

Lab Sample ID: LCS 880-20876/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	250.4		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-20876/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 21141

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	250.6		mg/Kg		100	90 - 110	0	20

Eurofins Midland

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-12038-7 MS
Matrix: Solid
Analysis Batch: 21141

Client Sample ID: BH 5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1120	F1	1260	2575	F1	mg/Kg		116	90 - 110		

Lab Sample ID: 880-12038-7 MSD
Matrix: Solid
Analysis Batch: 21141

Client Sample ID: BH 5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1120	F1	1260	2481		mg/Kg		108	90 - 110	4	20

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

GC VOA

Prep Batch: 20686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20686/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 20797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Total/NA	Solid	5035	
880-12038-2	BH 4	Total/NA	Solid	5035	
880-12038-3	BH 4	Total/NA	Solid	5035	
880-12038-4	BH 4	Total/NA	Solid	5035	
880-12038-5	BH 5	Total/NA	Solid	5035	
880-12038-7	BH 5	Total/NA	Solid	5035	
880-12038-8	BH 5	Total/NA	Solid	5035	
MB 880-20797/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20797/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20797/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2047-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-2047-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Total/NA	Solid	8021B	20797
880-12038-2	BH 4	Total/NA	Solid	8021B	20797
880-12038-3	BH 4	Total/NA	Solid	8021B	20797
880-12038-4	BH 4	Total/NA	Solid	8021B	20797
880-12038-5	BH 5	Total/NA	Solid	8021B	20797
880-12038-7	BH 5	Total/NA	Solid	8021B	20797
880-12038-8	BH 5	Total/NA	Solid	8021B	20797
MB 880-20686/5-A	Method Blank	Total/NA	Solid	8021B	20686
MB 880-20797/5-A	Method Blank	Total/NA	Solid	8021B	20797
LCS 880-20797/1-A	Lab Control Sample	Total/NA	Solid	8021B	20797
LCSD 880-20797/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20797
890-2047-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	20797
890-2047-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20797

Analysis Batch: 21110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-6	BH 5	Total/NA	Solid	8021B	21114
MB 880-21114/5-A	Method Blank	Total/NA	Solid	8021B	21114
LCS 880-21114/1-A	Lab Control Sample	Total/NA	Solid	8021B	21114
LCSD 880-21114/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21114
880-12112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21114
880-12112-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	21114

Prep Batch: 21114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-6	BH 5	Total/NA	Solid	5035	
MB 880-21114/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21114/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21114/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
880-12112-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

GC VOA

Analysis Batch: 21122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Total/NA	Solid	Total BTEX	
880-12038-2	BH 4	Total/NA	Solid	Total BTEX	
880-12038-3	BH 4	Total/NA	Solid	Total BTEX	
880-12038-4	BH 4	Total/NA	Solid	Total BTEX	
880-12038-5	BH 5	Total/NA	Solid	Total BTEX	
880-12038-6	BH 5	Total/NA	Solid	Total BTEX	
880-12038-7	BH 5	Total/NA	Solid	Total BTEX	
880-12038-8	BH 5	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Total/NA	Solid	8015NM Prep	
880-12038-2	BH 4	Total/NA	Solid	8015NM Prep	
880-12038-3	BH 4	Total/NA	Solid	8015NM Prep	
880-12038-4	BH 4	Total/NA	Solid	8015NM Prep	
880-12038-5	BH 5	Total/NA	Solid	8015NM Prep	
880-12038-6	BH 5	Total/NA	Solid	8015NM Prep	
880-12038-7	BH 5	Total/NA	Solid	8015NM Prep	
880-12038-8	BH 5	Total/NA	Solid	8015NM Prep	
MB 880-20869/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20869/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20869/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12025-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12025-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Total/NA	Solid	8015B NM	20869
880-12038-2	BH 4	Total/NA	Solid	8015B NM	20869
880-12038-3	BH 4	Total/NA	Solid	8015B NM	20869
880-12038-4	BH 4	Total/NA	Solid	8015B NM	20869
880-12038-5	BH 5	Total/NA	Solid	8015B NM	20869
880-12038-6	BH 5	Total/NA	Solid	8015B NM	20869
880-12038-7	BH 5	Total/NA	Solid	8015B NM	20869
880-12038-8	BH 5	Total/NA	Solid	8015B NM	20869
MB 880-20869/1-A	Method Blank	Total/NA	Solid	8015B NM	20869
LCS 880-20869/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20869
LCSD 880-20869/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20869
880-12025-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	20869
880-12025-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20869

Analysis Batch: 21517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Total/NA	Solid	8015 NM	
880-12038-2	BH 4	Total/NA	Solid	8015 NM	
880-12038-3	BH 4	Total/NA	Solid	8015 NM	
880-12038-4	BH 4	Total/NA	Solid	8015 NM	
880-12038-5	BH 5	Total/NA	Solid	8015 NM	
880-12038-6	BH 5	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

GC Semi VOA (Continued)

Analysis Batch: 21517 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-7	BH 5	Total/NA	Solid	8015 NM	
880-12038-8	BH 5	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Soluble	Solid	DI Leach	
880-12038-2	BH 4	Soluble	Solid	DI Leach	
880-12038-3	BH 4	Soluble	Solid	DI Leach	
880-12038-4	BH 4	Soluble	Solid	DI Leach	
880-12038-5	BH 5	Soluble	Solid	DI Leach	
880-12038-6	BH 5	Soluble	Solid	DI Leach	
MB 880-20875/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20875/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20875/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12035-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12035-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-12036-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12036-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 20876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-7	BH 5	Soluble	Solid	DI Leach	
880-12038-8	BH 5	Soluble	Solid	DI Leach	
MB 880-20876/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20876/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20876/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12038-7 MS	BH 5	Soluble	Solid	DI Leach	
880-12038-7 MSD	BH 5	Soluble	Solid	DI Leach	

Analysis Batch: 21049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-1	BH 4	Soluble	Solid	300.0	20875
880-12038-2	BH 4	Soluble	Solid	300.0	20875
880-12038-3	BH 4	Soluble	Solid	300.0	20875
880-12038-4	BH 4	Soluble	Solid	300.0	20875
880-12038-5	BH 5	Soluble	Solid	300.0	20875
880-12038-6	BH 5	Soluble	Solid	300.0	20875
MB 880-20875/1-A	Method Blank	Soluble	Solid	300.0	20875
LCS 880-20875/2-A	Lab Control Sample	Soluble	Solid	300.0	20875
LCSD 880-20875/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20875
880-12035-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	20875
880-12035-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20875
880-12036-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	20875
880-12036-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20875

Analysis Batch: 21141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12038-7	BH 5	Soluble	Solid	300.0	20876
880-12038-8	BH 5	Soluble	Solid	300.0	20876

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

HPLC/IC (Continued)

Analysis Batch: 21141 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20876/1-A	Method Blank	Soluble	Solid	300.0	20876
LCS 880-20876/2-A	Lab Control Sample	Soluble	Solid	300.0	20876
LCSD 880-20876/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20876
880-12038-7 MS	BH 5	Soluble	Solid	300.0	20876
880-12038-7 MSD	BH 5	Soluble	Solid	300.0	20876

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 4
Date Collected: 03/03/22 11:00
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20797	03/07/22 10:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21009	03/08/22 01:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 02:52	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20875	03/04/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		5			21049	03/09/22 14:49	CH	XEN MID

Client Sample ID: BH 4
Date Collected: 03/03/22 11:05
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20797	03/07/22 10:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21009	03/08/22 01:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20875	03/04/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		5			21049	03/09/22 14:55	CH	XEN MID

Client Sample ID: BH 4
Date Collected: 03/03/22 11:10
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20797	03/07/22 10:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21009	03/08/22 02:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20875	03/04/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		10			21049	03/09/22 15:00	CH	XEN MID

Client Sample ID: BH 4
Date Collected: 03/03/22 11:15
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20797	03/07/22 10:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21009	03/08/22 02:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 4
Date Collected: 03/03/22 11:15
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 03:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20875	03/04/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		5			21049	03/09/22 15:06	CH	XEN MID

Client Sample ID: BH 5
Date Collected: 03/03/22 11:20
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20797	03/07/22 10:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21009	03/08/22 02:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 04:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20875	03/04/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1			21049	03/09/22 15:12	CH	XEN MID

Client Sample ID: BH 5
Date Collected: 03/03/22 11:25
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	21114	03/08/22 08:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21110	03/08/22 16:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 04:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20875	03/04/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		5			21049	03/09/22 15:18	CH	XEN MID

Client Sample ID: BH 5
Date Collected: 03/03/22 11:30
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20797	03/07/22 10:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21009	03/08/22 04:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 05:01	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Client Sample ID: BH 5
Date Collected: 03/03/22 11:30
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		5			21141	03/09/22 14:59	CH	XEN MID

Client Sample ID: BH 5
Date Collected: 03/03/22 11:35
Date Received: 03/04/22 08:06

Lab Sample ID: 880-12038-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20797	03/07/22 10:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21009	03/08/22 05:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21122	03/08/22 10:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21517	03/14/22 10:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20869	03/04/22 10:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/12/22 05:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20876	03/04/22 10:44	CH	XEN MID
Soluble	Analysis	300.0		5			21141	03/09/22 15:26	CH	XEN MID

Laboratory References:
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12038-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12038-1	BH 4	Solid	03/03/22 11:00	03/04/22 08:06	0-6"
880-12038-2	BH 4	Solid	03/03/22 11:05	03/04/22 08:06	1'
880-12038-3	BH 4	Solid	03/03/22 11:10	03/04/22 08:06	2'
880-12038-4	BH 4	Solid	03/03/22 11:15	03/04/22 08:06	2.5'
880-12038-5	BH 5	Solid	03/03/22 11:20	03/04/22 08:06	0-6'
880-12038-6	BH 5	Solid	03/03/22 11:25	03/04/22 08:06	1'
880-12038-7	BH 5	Solid	03/03/22 11:30	03/04/22 08:06	2'
880-12038-8	BH 5	Solid	03/03/22 11:35	03/04/22 08:06	2.5'

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Environment Testing
Xenco

Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio, TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 12038

www.xenco.com Page 1 of 1

Project Manager	Grant Huckabay	Bill to (if different)	
Company Name	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address.	
City, State ZIP	Midland TX 79707	City State ZIP	
Phone	432-288-5529	Email	granth@forl com, Addisong@forl com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT Q SWD	Turn Around	
Project Number		☒ Routine ☐ Rush	
Project Location		Due Date	3/10/22
Sampler's Name	Addison Guelker	TAT starts the day received by the lab if received by 4 30pm	
PO #			

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-.1
Sample Custody Seals	Yes No (N/A)	Temperature Reading	5.6
Total Containers		Corrected Temperature	5.5

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH 8015M	BTEX 8021B	CHLORIDE
BH4	S	3/3/22	11:00 A	0-6"	G	1		X	X	X
BH4			11:05 A	1'						
BH4			11:10 A	2'						
BH4			11:15 A	2.5'						
BH5			11:20 A	0-6"						
BH5			11:25 A	1'						
BH5			11:30 A	2'						
BH5			11:35 A	2.5'						

Sample Comments

880-12038 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		3/4/22 8:06	2		
3			4		
5			6		

Revised Date. 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Fasken Oil and Ranch Job Number: 880-12038-1

Login Number: 12038 **List Source: Eurofins Midland**
List Number: 1
Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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").	N/A	

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12599-1
Client Project/Site: Cabot Q SWD

For:
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Attn: Grant Huckabay

JKramer

Authorized for release by:
3/21/2022 1:38:18 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Laboratory Job ID: 880-12599-1

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Definitions/Glossary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Job ID: 880-12599-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12599-1

Receipt
The samples were received on 3/18/2022 3:12 PM. 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 5.1°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH6 (880-12599-2). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The continuing calibration blank (CCB) for analytical batch 880-21949 contained Chloride above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Client Sample ID: BH6

Lab Sample ID: 880-12599-1
Matrix: Solid
Date Collected: 03/18/22 11:00
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 17:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 17:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 17:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/19/22 09:25	03/19/22 17:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 17:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/19/22 09:25	03/19/22 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 17:24*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/19/22 09:25*	*03/19/22 17:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/21/22 13:26	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:41	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:41	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/18/22 17:07*	*03/20/22 00:41*	*1*
o-Terphenyl	*107*		*70 - 130*	*03/18/22 17:07*	*03/20/22 00:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**232**		5.04		mg/Kg			03/19/22 16:03	1

Client Sample ID: BH6

Lab Sample ID: 880-12599-2
Matrix: Solid
Date Collected: 03/18/22 11:05
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 17:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 17:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 17:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 17:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 17:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 17:44	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Client Sample ID: BH6

Lab Sample ID: 880-12599-2
Matrix: Solid
Date Collected: 03/18/22 11:05
Date Received: 03/18/22 15:12
Sample Depth: 1'

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/19/22 09:25*	*03/19/22 17:44*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/19/22 09:25*	*03/19/22 17:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/21/22 13:26	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 01:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 01:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 01:02	1
Total TPH	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*03/18/22 17:07*	*03/20/22 01:02*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*03/18/22 17:07*	*03/20/22 01:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1070**		25.1		mg/Kg			03/19/22 16:13	5

Client Sample ID: BH6

Lab Sample ID: 880-12599-3
Matrix: Solid
Date Collected: 03/18/22 11:10
Date Received: 03/18/22 15:12
Sample Depth: 1.75'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:05	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:05	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:05	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/19/22 09:25	03/19/22 18:05	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:05	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/19/22 09:25	03/19/22 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/19/22 09:25*	*03/19/22 18:05*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*03/19/22 09:25*	*03/19/22 18:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/21/22 13:26	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Client Sample ID: BH6

Lab Sample ID: 880-12599-3

Date Collected: 03/18/22 11:10
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1.75'

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 01:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 01:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 01:22	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*03/18/22 17:07*	*03/20/22 01:22*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/18/22 17:07*	*03/20/22 01:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**921**		25.1		mg/Kg			03/19/22 16:23	5

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-12315-A-11-F MS	Matrix Spike	104	111										
880-12315-A-11-G MSD	Matrix Spike Duplicate	105	111										
880-12599-1	BH6	104	109										
880-12599-2	BH6	103	108										
880-12599-3	BH6	108	112										
LCS 880-21935/1-A	Lab Control Sample	103	111										
LCSD 880-21935/2-A	Lab Control Sample Dup	104	112										
MB 880-21935/5-A	Method Blank	104	105										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-12599-1	BH6	97	107										
880-12599-2	BH6	117	141 S1+										
880-12599-3	BH6	96	112										
880-12602-A-1-C MS	Matrix Spike	94	97										
880-12602-A-1-D MSD	Matrix Spike Duplicate	92	92										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO2	OTPH2										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
LCS 880-21925/2-A	Lab Control Sample	103	120										
LCSD 880-21925/3-A	Lab Control Sample Dup	108	126										
MB 880-21925/1-A	Method Blank	101	126										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21935/5-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:36*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:36*	*1*

Lab Sample ID: LCS 880-21935/1-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1011		mg/Kg		101	70 - 130
Toluene	0.100	0.1005		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1025		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2105		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1021		mg/Kg		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-21935/2-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1095		mg/Kg		109	70 - 130	8	35
Toluene	0.100	0.1081		mg/Kg		108	70 - 130	7	35
Ethylbenzene	0.100	0.1096		mg/Kg		110	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2259		mg/Kg		113	70 - 130	7	35
o-Xylene	0.100	0.1096		mg/Kg		110	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-12315-A-11-F MS
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U	0.100	0.08164		mg/Kg		81	70 - 130
Toluene	<0.00202	U	0.100	0.07915		mg/Kg		79	70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

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

Lab Sample ID: 880-12315-A-11-F MS
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.100	0.07729		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1611		mg/Kg		80	70 - 130
o-Xylene	<0.00202	U	0.100	0.07937		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-12315-A-11-G MSD
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.08491		mg/Kg		85	70 - 130	4	35
Toluene	<0.00202	U	0.100	0.08152		mg/Kg		81	70 - 130	3	35
Ethylbenzene	<0.00202	U	0.100	0.08010		mg/Kg		80	70 - 130	4	35
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1651		mg/Kg		82	70 - 130	2	35
o-Xylene	<0.00202	U	0.100	0.08108		mg/Kg		81	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-21925/1-A
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21925

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/18/22 17:07*	*03/19/22 20:54*	*1*
o-Terphenyl	*126*		*70 - 130*	*03/18/22 17:07*	*03/19/22 20:54*	*1*

Lab Sample ID: LCS 880-21925/2-A
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21925

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	883.2		mg/Kg		88	70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-21925/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	946.5		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*120*		*70 - 130*

Lab Sample ID: LCSD 880-21925/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1008		mg/Kg		101	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1156		mg/Kg		116	70 - 130	20	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: 880-12602-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	896.0		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	998	904.8		mg/Kg		87	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: 880-12602-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	909.4		mg/Kg		89	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	870.4		mg/Kg		84	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21308/1-A
Matrix: Solid
Analysis Batch: 21949

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/19/22 11:23	1

Lab Sample ID: LCS 880-21308/2-A
Matrix: Solid
Analysis Batch: 21949

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	257.8		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-21308/3-A
Matrix: Solid
Analysis Batch: 21949

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	257.9		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-2059-A-5-E MS
Matrix: Solid
Analysis Batch: 21949

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	245	^2	249	495.1		mg/Kg		101	90 - 110		

Lab Sample ID: 890-2059-A-5-F MSD
Matrix: Solid
Analysis Batch: 21949

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	245	^2	249	491.3		mg/Kg		99	90 - 110	1	20

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

GC VOA

Prep Batch: 21935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Total/NA	Solid	5035	
880-12599-2	BH6	Total/NA	Solid	5035	
880-12599-3	BH6	Total/NA	Solid	5035	
MB 880-21935/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12315-A-11-F MS	Matrix Spike	Total/NA	Solid	5035	
880-12315-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Total/NA	Solid	8021B	21935
880-12599-2	BH6	Total/NA	Solid	8021B	21935
880-12599-3	BH6	Total/NA	Solid	8021B	21935
MB 880-21935/5-A	Method Blank	Total/NA	Solid	8021B	21935
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	8021B	21935
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21935
880-12315-A-11-F MS	Matrix Spike	Total/NA	Solid	8021B	21935
880-12315-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21935

Analysis Batch: 22075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Total/NA	Solid	Total BTEX	
880-12599-2	BH6	Total/NA	Solid	Total BTEX	
880-12599-3	BH6	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Total/NA	Solid	8015NM Prep	
880-12599-2	BH6	Total/NA	Solid	8015NM Prep	
880-12599-3	BH6	Total/NA	Solid	8015NM Prep	
MB 880-21925/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21925/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21925/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12602-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12602-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Total/NA	Solid	8015B NM	21925
880-12599-2	BH6	Total/NA	Solid	8015B NM	21925
880-12599-3	BH6	Total/NA	Solid	8015B NM	21925
MB 880-21925/1-A	Method Blank	Total/NA	Solid	8015B NM	21925
LCS 880-21925/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21925
LCSD 880-21925/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21925
880-12602-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	21925
880-12602-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21925

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

GC Semi VOA

Analysis Batch: 22046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Total/NA	Solid	8015 NM	
880-12599-2	BH6	Total/NA	Solid	8015 NM	
880-12599-3	BH6	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Soluble	Solid	DI Leach	
880-12599-2	BH6	Soluble	Solid	DI Leach	
880-12599-3	BH6	Soluble	Solid	DI Leach	
MB 880-21308/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21308/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21308/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2059-A-5-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2059-A-5-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 21949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12599-1	BH6	Soluble	Solid	300.0	21308
880-12599-2	BH6	Soluble	Solid	300.0	21308
880-12599-3	BH6	Soluble	Solid	300.0	21308
MB 880-21308/1-A	Method Blank	Soluble	Solid	300.0	21308
LCS 880-21308/2-A	Lab Control Sample	Soluble	Solid	300.0	21308
LCSD 880-21308/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21308
890-2059-A-5-E MS	Matrix Spike	Soluble	Solid	300.0	21308
890-2059-A-5-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	21308

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Client Sample ID: BH6

Lab Sample ID: 880-12599-1

Date Collected: 03/18/22 11:00
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 17:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22075	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22046	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/20/22 00:41	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21308	03/18/22 16:45	CH	XEN MID
Soluble	Analysis	300.0		1			21949	03/19/22 16:03	SC	XEN MID

Client Sample ID: BH6

Lab Sample ID: 880-12599-2

Date Collected: 03/18/22 11:05
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 17:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22075	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22046	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/20/22 01:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	21308	03/18/22 16:45	CH	XEN MID
Soluble	Analysis	300.0		5			21949	03/19/22 16:13	SC	XEN MID

Client Sample ID: BH6

Lab Sample ID: 880-12599-3

Date Collected: 03/18/22 11:10
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 18:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22075	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22046	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/20/22 01:22	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21308	03/18/22 16:45	CH	XEN MID
Soluble	Analysis	300.0		5			21949	03/19/22 16:23	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12599-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12599-1	BH6	Solid	03/18/22 11:00	03/18/22 15:12	0-6"
880-12599-2	BH6	Solid	03/18/22 11:05	03/18/22 15:12	1'
880-12599-3	BH6	Solid	03/18/22 11:10	03/18/22 15:12	1.75'

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Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

Work Order No: 12599

www.xenco.com Page 1 of 1

Project Manager:	Grant Huckabay	Bill to (if different)	
Company Name	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address	
City, State ZIP	Midland TX 79707	City State ZIP	
Phone	432-687-1777	Email	granth@forl.com / addisong@forl.com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT G SWD	Turn Around	☐ Routine ☒ Rush
Project Number		Due Date	3/23/22
Project Location		TAT starts the day received by the lab if received by 4:30pm	
Sampler's Name	Addison Guelker		
PO #			

SAMPLE RECEIPT				
Temp Blank	Yes No	Wet Ice	Yes No	
Samples Received Intact	Yes No	Thermometer ID	IR2	
Cooler Custody Seals	Yes No N/A	Correction Factor	-.1	
Sample Custody Seals	Yes No N/A	Temperature Reading	5.2	
Total Containers		Corrected Temperature	5.1	

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cl	EC	TPH 8015M	BTEX 8021B	Sample Comments
BH6	S	3/18/2022	11:00	0.6"	G	1		X		X	X	402
BH6	S	3/18/22	11:05	1'	G	1						
BH6	S	3/18/22	11:10	1.75'	G	1						
BH7	S		11:15	0.6"								
BH7	S		11:20	1'								
BH7	S		11:25	2'								
	S											
	S											
	S											
	S											

880-12599 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		3/18/22 15:12	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12601-1
Client Project/Site: Cabot Q SWD

For:
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Attn: Grant Huckabay

JKramer

Authorized for release by:
3/21/2022 1:38:17 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Laboratory Job ID: 880-12601-1

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Definitions/Glossary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Job ID: 880-12601-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12601-1

Receipt
The samples were received on 3/18/2022 3:12 PM. 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 5.1°C

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

GC Semi VOA
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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Client Sample ID: S1

Lab Sample ID: 880-12601-1
Matrix: Solid
Date Collected: 03/18/22 12:00
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:25	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:25	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:25	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/19/22 09:25	03/19/22 18:25	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/19/22 09:25	03/19/22 18:25	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/19/22 09:25	03/19/22 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/19/22 09:25*	*03/19/22 18:25*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/19/22 09:25*	*03/19/22 18:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/21/22 13:26	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**73.9**		49.9		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/19/22 23:18	1
Diesel Range Organics (Over C10-C28)	**73.9**		49.9		mg/Kg		03/18/22 17:07	03/19/22 23:18	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/19/22 23:18	1
Total TPH	**73.9**		49.9		mg/Kg		03/18/22 17:07	03/19/22 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/18/22 17:07*	*03/19/22 23:18*	*1*
o-Terphenyl	*116*		*70 - 130*	*03/18/22 17:07*	*03/19/22 23:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57600**		499		mg/Kg			03/19/22 21:23	100

Client Sample ID: S1

Lab Sample ID: 880-12601-2
Matrix: Solid
Date Collected: 03/18/22 12:05
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 18:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 18:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 18:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/19/22 09:25	03/19/22 18:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 18:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/19/22 09:25	03/19/22 18:45	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Client Sample ID: S1

Lab Sample ID: 880-12601-2

Date Collected: 03/18/22 12:05
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/19/22 09:25	03/19/22 18:45	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/19/22 09:25	03/19/22 18:45	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/21/22 13:26	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 23:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 23:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 23:39	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	03/18/22 17:07	03/19/22 23:39	1
o-Terphenyl	119		70 - 130	03/18/22 17:07	03/19/22 23:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2560**		24.9		mg/Kg			03/19/22 21:34	5

Client Sample ID: S2

Lab Sample ID: 880-12601-3

Date Collected: 03/18/22 12:15
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 19:06	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 19:06	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 19:06	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/19/22 09:25	03/19/22 19:06	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 19:06	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/19/22 09:25	03/19/22 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/19/22 09:25	03/19/22 19:06	1
1,4-Difluorobenzene (Surr)	107		70 - 130	03/19/22 09:25	03/19/22 19:06	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/21/22 13:26	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Client Sample ID: S2

Lab Sample ID: 880-12601-3
Matrix: Solid
Date Collected: 03/18/22 12:15
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 00:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 00:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 00:00	1
Total TPH	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/20/22 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/18/22 17:07*	*03/20/22 00:00*	*1*
o-Terphenyl	*111*		*70 - 130*	*03/18/22 17:07*	*03/20/22 00:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7100**		100		mg/Kg			03/19/22 21:44	20

Client Sample ID: S2

Lab Sample ID: 880-12601-4
Matrix: Solid
Date Collected: 03/18/22 12:20
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 19:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 19:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 19:26	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/19/22 09:25	03/19/22 19:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 19:26	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/19/22 09:25	03/19/22 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/19/22 09:25*	*03/19/22 19:26*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/19/22 09:25*	*03/19/22 19:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/21/22 13:26	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:20	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:20	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Client Sample ID: S2
Date Collected: 03/18/22 12:20
Date Received: 03/18/22 15:12
Sample Depth: 1'

Lab Sample ID: 880-12601-4
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/20/22 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/18/22 17:07*	*03/20/22 00:20*	*1*
o-Terphenyl	*130*		*70 - 130*	*03/18/22 17:07*	*03/20/22 00:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		25.0		mg/Kg			03/19/22 21:54	5

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-12315-A-11-F MS	Matrix Spike	104	111
880-12315-A-11-G MSD	Matrix Spike Duplicate	105	111
880-12601-1	S1	103	107
880-12601-2	S1	106	108
880-12601-3	S2	103	107
880-12601-4	S2	106	109
LCS 880-21935/1-A	Lab Control Sample	103	111
LCSD 880-21935/2-A	Lab Control Sample Dup	104	112
MB 880-21935/5-A	Method Blank	104	105

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-12601-1	S1	100	116
880-12601-2	S1	99	119
880-12601-3	S2	97	111
880-12601-4	S2	108	130
880-12602-A-1-C MS	Matrix Spike	94	97
880-12602-A-1-D MSD	Matrix Spike Duplicate	92	92

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-21925/2-A	Lab Control Sample	103	120
LCSD 880-21925/3-A	Lab Control Sample Dup	108	126
MB 880-21925/1-A	Method Blank	101	126

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21935/5-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:36*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:36*	*1*

Lab Sample ID: LCS 880-21935/1-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1011		mg/Kg		101	70 - 130
Toluene	0.100	0.1005		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1025		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2105		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1021		mg/Kg		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-21935/2-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1095		mg/Kg		109	70 - 130	8	35
Toluene	0.100	0.1081		mg/Kg		108	70 - 130	7	35
Ethylbenzene	0.100	0.1096		mg/Kg		110	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2259		mg/Kg		113	70 - 130	7	35
o-Xylene	0.100	0.1096		mg/Kg		110	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-12315-A-11-F MS
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U	0.100	0.08164		mg/Kg		81	70 - 130
Toluene	<0.00202	U	0.100	0.07915		mg/Kg		79	70 - 130

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QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

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

Lab Sample ID: 880-12315-A-11-F MS
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.100	0.07729		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1611		mg/Kg		80	70 - 130
o-Xylene	<0.00202	U	0.100	0.07937		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-12315-A-11-G MSD
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.08491		mg/Kg		85	70 - 130	4	35
Toluene	<0.00202	U	0.100	0.08152		mg/Kg		81	70 - 130	3	35
Ethylbenzene	<0.00202	U	0.100	0.08010		mg/Kg		80	70 - 130	4	35
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1651		mg/Kg		82	70 - 130	2	35
o-Xylene	<0.00202	U	0.100	0.08108		mg/Kg		81	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-21925/1-A
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21925

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/18/22 17:07*	*03/19/22 20:54*	*1*
o-Terphenyl	*126*		*70 - 130*	*03/18/22 17:07*	*03/19/22 20:54*	*1*

Lab Sample ID: LCS 880-21925/2-A
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21925

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	883.2		mg/Kg		88	70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-21925/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	946.5		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*120*		*70 - 130*

Lab Sample ID: LCSD 880-21925/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1008		mg/Kg		101	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1156		mg/Kg		116	70 - 130	20	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: 880-12602-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	896.0		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	998	904.8		mg/Kg		87	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: 880-12602-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	909.4		mg/Kg		89	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	870.4		mg/Kg		84	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21737/1-A
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/19/22 17:15	1

Lab Sample ID: LCS 880-21737/2-A
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	262.8		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-21737/3-A
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	263.1		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 880-12452-A-23-C MS
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	167		250	431.9		mg/Kg		106	90 - 110		

Lab Sample ID: 880-12452-A-23-D MSD
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	167		250	431.7		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

GC VOA

Prep Batch: 21935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Total/NA	Solid	5035	
880-12601-2	S1	Total/NA	Solid	5035	
880-12601-3	S2	Total/NA	Solid	5035	
880-12601-4	S2	Total/NA	Solid	5035	
MB 880-21935/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12315-A-11-F MS	Matrix Spike	Total/NA	Solid	5035	
880-12315-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Total/NA	Solid	8021B	21935
880-12601-2	S1	Total/NA	Solid	8021B	21935
880-12601-3	S2	Total/NA	Solid	8021B	21935
880-12601-4	S2	Total/NA	Solid	8021B	21935
MB 880-21935/5-A	Method Blank	Total/NA	Solid	8021B	21935
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	8021B	21935
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21935
880-12315-A-11-F MS	Matrix Spike	Total/NA	Solid	8021B	21935
880-12315-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21935

Analysis Batch: 22076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Total/NA	Solid	Total BTEX	
880-12601-2	S1	Total/NA	Solid	Total BTEX	
880-12601-3	S2	Total/NA	Solid	Total BTEX	
880-12601-4	S2	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Total/NA	Solid	8015NM Prep	
880-12601-2	S1	Total/NA	Solid	8015NM Prep	
880-12601-3	S2	Total/NA	Solid	8015NM Prep	
880-12601-4	S2	Total/NA	Solid	8015NM Prep	
MB 880-21925/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21925/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21925/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12602-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12602-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Total/NA	Solid	8015B NM	21925
880-12601-2	S1	Total/NA	Solid	8015B NM	21925
880-12601-3	S2	Total/NA	Solid	8015B NM	21925
880-12601-4	S2	Total/NA	Solid	8015B NM	21925
MB 880-21925/1-A	Method Blank	Total/NA	Solid	8015B NM	21925
LCS 880-21925/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21925

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

GC Semi VOA (Continued)

Analysis Batch: 21937 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-21925/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21925
880-12602-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	21925
880-12602-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21925

Analysis Batch: 22045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Total/NA	Solid	8015 NM	
880-12601-2	S1	Total/NA	Solid	8015 NM	
880-12601-3	S2	Total/NA	Solid	8015 NM	
880-12601-4	S2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Soluble	Solid	DI Leach	
880-12601-2	S1	Soluble	Solid	DI Leach	
880-12601-3	S2	Soluble	Solid	DI Leach	
880-12601-4	S2	Soluble	Solid	DI Leach	
MB 880-21737/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21737/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21737/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12452-A-23-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12452-A-23-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 21950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12601-1	S1	Soluble	Solid	300.0	21737
880-12601-2	S1	Soluble	Solid	300.0	21737
880-12601-3	S2	Soluble	Solid	300.0	21737
880-12601-4	S2	Soluble	Solid	300.0	21737
MB 880-21737/1-A	Method Blank	Soluble	Solid	300.0	21737
LCS 880-21737/2-A	Lab Control Sample	Soluble	Solid	300.0	21737
LCSD 880-21737/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21737
880-12452-A-23-C MS	Matrix Spike	Soluble	Solid	300.0	21737
880-12452-A-23-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	21737

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Client Sample ID: S1
Date Collected: 03/18/22 12:00
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12601-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 18:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22076	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22045	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/19/22 23:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21737	03/18/22 16:50	CH	XEN MID
Soluble	Analysis	300.0		100			21950	03/19/22 21:23	CH	XEN MID

Client Sample ID: S1
Date Collected: 03/18/22 12:05
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12601-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 18:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22076	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22045	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/19/22 23:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21737	03/18/22 16:50	CH	XEN MID
Soluble	Analysis	300.0		5			21950	03/19/22 21:34	CH	XEN MID

Client Sample ID: S2
Date Collected: 03/18/22 12:15
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12601-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 19:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22076	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22045	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/20/22 00:00	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21737	03/18/22 16:50	CH	XEN MID
Soluble	Analysis	300.0		20			21950	03/19/22 21:44	CH	XEN MID

Client Sample ID: S2
Date Collected: 03/18/22 12:20
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12601-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 19:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22076	03/21/22 13:26	AJ	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Client Sample ID: S2

Date Collected: 03/18/22 12:20
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12601-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22045	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/20/22 00:20	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21737	03/18/22 16:50	CH	XEN MID
Soluble	Analysis	300.0		5			21950	03/19/22 21:54	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12601-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12601-1	S1	Solid	03/18/22 12:00	03/18/22 15:12	0-6"
880-12601-2	S1	Solid	03/18/22 12:05	03/18/22 15:12	1'
880-12601-3	S2	Solid	03/18/22 12:15	03/18/22 15:12	0-6"
880-12601-4	S2	Solid	03/18/22 12:20	03/18/22 15:12	1'

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Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 12601

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Project Manager	Grant Huckabay	Bill to (if different)	
Company Name	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address	
City, State ZIP	Midland TX 79707	City, State ZIP	
Phone	432-687-1777	Email	granth@forl.com / addisong@forl.com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT Q SWD	Turn Around	☐ Routine ☒ Rush
Project Number		Due Date	3/23/22
Project Location		TAT starts the day received by the lab if received by 4 30pm	
Sampler's Name	Addison Guelker		
PO #:			

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals.	Yes No (N/A)	Correction Factor	-.1
Sample Custody Seals.	Yes No (N/A)	Temperature Reading	5.2
Total Containers		Corrected Temperature	5.1

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: CL	EC	TPH 8015M	BTEX 8021B	Sample Comments
S1	S	3/18/2022	12:00	0-6"	G	1	X		X	X	
S1	S	3/18/22	12 05	1'	G	1					
S2	S		12:15	0-6"							
S2	S		12 20	1'							
	S										
	S										
	S										
	S										
	S										
	S										

880-12601 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed These terms will be enforced unless previously negotiated

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		3/18/22 15:12	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12602-1
Client Project/Site: Cabot Q SWD

For:
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Attn: Grant Huckabay

JKramer

Authorized for release by:
3/21/2022 1:38:32 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Laboratory Job ID: 880-12602-1

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Definitions/Glossary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Job ID: 880-12602-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12602-1

Receipt
The samples were received on 3/18/2022 3:12 PM. 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 5.1°C

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

GC Semi VOA
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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Client Sample ID: BG1

Lab Sample ID: 880-12602-1
Matrix: Solid
Date Collected: 03/18/22 13:00
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 19:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 19:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 19:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 19:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 19:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/19/22 09:25*	*03/19/22 19:47*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/19/22 09:25*	*03/19/22 19:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/21/22 13:26	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/18/22 17:07	03/19/22 21:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/18/22 17:07	03/19/22 21:56	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/22 17:07	03/19/22 21:56	1
Total TPH	<49.8	U	49.8		mg/Kg		03/18/22 17:07	03/19/22 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/18/22 17:07*	*03/19/22 21:56*	*1*
o-Terphenyl	*125*		*70 - 130*	*03/18/22 17:07*	*03/19/22 21:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.4**		4.95		mg/Kg			03/19/22 22:05	1

Client Sample ID: BG2

Lab Sample ID: 880-12602-2
Matrix: Solid
Date Collected: 03/18/22 13:05
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 20:07	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 20:07	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 20:07	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/19/22 09:25	03/19/22 20:07	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 20:07	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/19/22 09:25	03/19/22 20:07	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Client Sample ID: BG2

Date Collected: 03/18/22 13:05
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Lab Sample ID: 880-12602-2

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 20:07*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/19/22 09:25*	*03/19/22 20:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/21/22 13:26	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**51.1**		49.9		mg/Kg			03/21/22 11:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/19/22 22:58	1
Diesel Range Organics (Over C10-C28)	**51.1**		49.9		mg/Kg		03/18/22 17:07	03/19/22 22:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 17:07	03/19/22 22:58	1
Total TPH	**51.1**		49.9		mg/Kg		03/18/22 17:07	03/19/22 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*03/18/22 17:07*	*03/19/22 22:58*	*1*
o-Terphenyl	*123*		*70 - 130*	*03/18/22 17:07*	*03/19/22 22:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.28**		4.99		mg/Kg			03/19/22 22:15	1

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-12315-A-11-F MS	Matrix Spike	104	111										
880-12315-A-11-G MSD	Matrix Spike Duplicate	105	111										
880-12602-1	BG1	105	110										
880-12602-2	BG2	104	97										
LCS 880-21935/1-A	Lab Control Sample	103	111										
LCSD 880-21935/2-A	Lab Control Sample Dup	104	112										
MB 880-21935/5-A	Method Blank	104	105										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-12602-1	BG1	105	125										
880-12602-1 MS	BG1	94	97										
880-12602-1 MSD	BG1	92	92										
880-12602-2	BG2	103	123										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO2	OTPH2										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
LCS 880-21925/2-A	Lab Control Sample	103	120										
LCSD 880-21925/3-A	Lab Control Sample Dup	108	126										
MB 880-21925/1-A	Method Blank	101	126										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21935/5-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:36*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:36*	*1*

Lab Sample ID: LCS 880-21935/1-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1011		mg/Kg		101	70 - 130
Toluene	0.100	0.1005		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1025		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2105		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1021		mg/Kg		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-21935/2-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1095		mg/Kg		109	70 - 130	8	35
Toluene	0.100	0.1081		mg/Kg		108	70 - 130	7	35
Ethylbenzene	0.100	0.1096		mg/Kg		110	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2259		mg/Kg		113	70 - 130	7	35
o-Xylene	0.100	0.1096		mg/Kg		110	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-12315-A-11-F MS
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U	0.100	0.08164		mg/Kg		81	70 - 130
Toluene	<0.00202	U	0.100	0.07915		mg/Kg		79	70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

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

Lab Sample ID: 880-12315-A-11-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21936 — **Prep Batch: 21935**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.100	0.07729		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1611		mg/Kg		80	70 - 130
o-Xylene	<0.00202	U	0.100	0.07937		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-12315-A-11-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21936 — **Prep Batch: 21935**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.08491		mg/Kg		85	70 - 130	4	35
Toluene	<0.00202	U	0.100	0.08152		mg/Kg		81	70 - 130	3	35
Ethylbenzene	<0.00202	U	0.100	0.08010		mg/Kg		80	70 - 130	4	35
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1651		mg/Kg		82	70 - 130	2	35
o-Xylene	<0.00202	U	0.100	0.08108		mg/Kg		81	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-21925/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/22 17:07	03/19/22 20:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/18/22 17:07*	*03/19/22 20:54*	*1*
o-Terphenyl	*126*		*70 - 130*	*03/18/22 17:07*	*03/19/22 20:54*	*1*

Lab Sample ID: LCS 880-21925/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21937 — **Prep Batch: 21925**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	883.2		mg/Kg		88	70 - 130

Eurofins Midland

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-21925/2-A
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21925

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	946.5		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*120*		*70 - 130*

Lab Sample ID: LCSD 880-21925/3-A
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21925

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1008		mg/Kg		101	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1156		mg/Kg		116	70 - 130	20	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: 880-12602-1 MS
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: BG1
Prep Type: Total/NA
Prep Batch: 21925

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	896.0		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	998	904.8		mg/Kg		87	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: 880-12602-1 MSD
Matrix: Solid
Analysis Batch: 21937

Client Sample ID: BG1
Prep Type: Total/NA
Prep Batch: 21925

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	909.4		mg/Kg		89	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	870.4		mg/Kg		84	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21737/1-A
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/19/22 17:15	1

Lab Sample ID: LCS 880-21737/2-A
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	262.8		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-21737/3-A
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	263.1		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 880-12452-A-23-C MS
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	167		250	431.9		mg/Kg		106	90 - 110		

Lab Sample ID: 880-12452-A-23-D MSD
Matrix: Solid
Analysis Batch: 21950

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	167		250	431.7		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

GC VOA

Prep Batch: 21935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Total/NA	Solid	5035	
880-12602-2	BG2	Total/NA	Solid	5035	
MB 880-21935/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12315-A-11-F MS	Matrix Spike	Total/NA	Solid	5035	
880-12315-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Total/NA	Solid	8021B	21935
880-12602-2	BG2	Total/NA	Solid	8021B	21935
MB 880-21935/5-A	Method Blank	Total/NA	Solid	8021B	21935
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	8021B	21935
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21935
880-12315-A-11-F MS	Matrix Spike	Total/NA	Solid	8021B	21935
880-12315-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21935

Analysis Batch: 22077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Total/NA	Solid	Total BTEX	
880-12602-2	BG2	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Total/NA	Solid	8015NM Prep	
880-12602-2	BG2	Total/NA	Solid	8015NM Prep	
MB 880-21925/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21925/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21925/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12602-1 MS	BG1	Total/NA	Solid	8015NM Prep	
880-12602-1 MSD	BG1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Total/NA	Solid	8015B NM	21925
880-12602-2	BG2	Total/NA	Solid	8015B NM	21925
MB 880-21925/1-A	Method Blank	Total/NA	Solid	8015B NM	21925
LCS 880-21925/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21925
LCSD 880-21925/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21925
880-12602-1 MS	BG1	Total/NA	Solid	8015B NM	21925
880-12602-1 MSD	BG1	Total/NA	Solid	8015B NM	21925

Analysis Batch: 22044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Total/NA	Solid	8015 NM	
880-12602-2	BG2	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

HPLC/IC

Leach Batch: 21737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Soluble	Solid	DI Leach	
880-12602-2	BG2	Soluble	Solid	DI Leach	
MB 880-21737/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21737/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21737/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12452-A-23-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12452-A-23-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 21950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12602-1	BG1	Soluble	Solid	300.0	21737
880-12602-2	BG2	Soluble	Solid	300.0	21737
MB 880-21737/1-A	Method Blank	Soluble	Solid	300.0	21737
LCS 880-21737/2-A	Lab Control Sample	Soluble	Solid	300.0	21737
LCSD 880-21737/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21737
880-12452-A-23-C MS	Matrix Spike	Soluble	Solid	300.0	21737
880-12452-A-23-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	21737

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Client Sample ID: BG1

Lab Sample ID: 880-12602-1
Matrix: Solid
Date Collected: 03/18/22 13:00
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 19:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22077	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22044	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/19/22 21:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21737	03/18/22 16:50	CH	XEN MID
Soluble	Analysis	300.0		1			21950	03/19/22 22:05	CH	XEN MID

Client Sample ID: BG2

Lab Sample ID: 880-12602-2
Matrix: Solid
Date Collected: 03/18/22 13:05
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 20:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22077	03/21/22 13:26	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22044	03/21/22 11:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21925	03/18/22 17:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21937	03/19/22 22:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21737	03/18/22 16:50	CH	XEN MID
Soluble	Analysis	300.0		1			21950	03/19/22 22:15	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12602-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12602-1	BG1	Solid	03/18/22 13:00	03/18/22 15:12	0-6"
880-12602-2	BG2	Solid	03/18/22 13:05	03/18/22 15:12	0-6"

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Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 12602

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Project Manager	Grant Huckabay	Bill to (if different)	
Company Name	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address	
City, State ZIP	Midland TX 79707	City, State ZIP	
Phone	432-687-1777	Email	granth@forl.com / addisong@forl.com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT Q SWD	Turn Around	☐ Routine ☒ Rush
Project Number		Due Date	3/23/22
Project Location		TAT starts the day received by the lab if received by 4:30pm	
Sampler's Name	Addison Guelker		
PO #:			

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	Yes (No)
Samples Received Intact	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-.1
Sample Custody Seals	Yes No (N/A)	Temperature Reading	5.2
Total Containers		Corrected Temperature	5.1

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CL	EC	TPH 8015M	BTEX 8021B
BG1	S	3/18/2022	1:00	0.6'	G	1		X		X	X
BG2	S	3/18/22	1:05	0.6'	G	1		X		X	X
	S										
	S										
	S										
	S										
	S										
	S										
	S										
	S										

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Comments

880-12602 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		3/18/22 18:12	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12070-1
Laboratory Sample Delivery Group: Andrews
Client Project/Site: Cabot Q SWD

For:
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Attn: Grant Huckabay

JKramer

Authorized for release by:
3/15/2022 3:03:02 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Laboratory Job ID: 880-12070-1
SDG: Andrews

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Definitions/Glossary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Job ID: 880-12070-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12070-1

Receipt
The samples were received on 3/4/2022 4:12 PM. 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 1.1°C

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

GC Semi VOA
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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Client Sample ID: T1

Lab Sample ID: 880-12070-1
Matrix: Solid
Date Collected: 03/03/22 13:00
Date Received: 03/04/22 16:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 17:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 17:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 17:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/09/22 08:00	03/09/22 17:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 17:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/09/22 08:00	03/09/22 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/09/22 08:00*	*03/09/22 17:38*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/09/22 08:00*	*03/09/22 17:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1180**		49.8		mg/Kg			03/09/22 19:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/08/22 08:46	03/09/22 06:07	1
Diesel Range Organics (Over C10-C28)	**1180**		49.8		mg/Kg		03/08/22 08:46	03/09/22 06:07	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/08/22 08:46	03/09/22 06:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*03/08/22 08:46*	*03/09/22 06:07*	*1*
o-Terphenyl	*111*		*70 - 130*	*03/08/22 08:46*	*03/09/22 06:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**344**		4.97		mg/Kg			03/11/22 23:53	1

Client Sample ID: T1

Lab Sample ID: 880-12070-2
Matrix: Solid
Date Collected: 03/03/22 13:05
Date Received: 03/04/22 16:12
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 17:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 17:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 17:58	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/09/22 08:00	03/09/22 17:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 17:58	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/09/22 08:00	03/09/22 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/09/22 08:00*	*03/09/22 17:58*	*1*

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Client Sample ID: T1

Lab Sample ID: 880-12070-2
Matrix: Solid
Date Collected: 03/03/22 13:05
Date Received: 03/04/22 16:12
Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*03/09/22 08:00*	*03/09/22 17:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**312**		50.0		mg/Kg			03/09/22 19:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/08/22 08:46	03/09/22 06:27	1
Diesel Range Organics (Over C10-C28)	**312**		50.0		mg/Kg		03/08/22 08:46	03/09/22 06:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/08/22 08:46	03/09/22 06:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*115*		*70 - 130*	*03/08/22 08:46*	*03/09/22 06:27*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/08/22 08:46*	*03/09/22 06:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1280**		24.9		mg/Kg			03/11/22 23:59	5

Client Sample ID: T1

Lab Sample ID: 880-12070-3
Matrix: Solid
Date Collected: 03/03/22 13:10
Date Received: 03/04/22 16:12
Sample Depth: 3'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 18:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 18:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 18:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/09/22 08:00	03/09/22 18:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/09/22 08:00	03/09/22 18:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/09/22 08:00	03/09/22 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/09/22 08:00*	*03/09/22 18:19*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/09/22 08:00*	*03/09/22 18:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**965**		49.9		mg/Kg			03/09/22 19:12	1

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Client Sample ID: T1

Lab Sample ID: 880-12070-3
Matrix: Solid
Date Collected: 03/03/22 13:10
Date Received: 03/04/22 16:12
Sample Depth: 3'

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/08/22 08:46	03/09/22 06:48	1
Diesel Range Organics (Over C10-C28)	**965**		49.9		mg/Kg		03/08/22 08:46	03/09/22 06:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/08/22 08:46	03/09/22 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*03/08/22 08:46*	*03/09/22 06:48*	*1*
o-Terphenyl	*117*		*70 - 130*	*03/08/22 08:46*	*03/09/22 06:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**738**		25.1		mg/Kg			03/12/22 00:05	5

Client Sample ID: T1

Lab Sample ID: 880-12070-4
Matrix: Solid
Date Collected: 03/03/22 13:15
Date Received: 03/04/22 16:12
Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:39	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:39	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:39	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/09/22 08:00	03/09/22 18:39	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:39	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/09/22 08:00	03/09/22 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/09/22 08:00*	*03/09/22 18:39*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/09/22 08:00*	*03/09/22 18:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**371**		49.8		mg/Kg			03/09/22 19:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/08/22 08:46	03/09/22 07:10	1
Diesel Range Organics (Over C10-C28)	**371**		49.8		mg/Kg		03/08/22 08:46	03/09/22 07:10	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/08/22 08:46	03/09/22 07:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*03/08/22 08:46*	*03/09/22 07:10*	*1*
o-Terphenyl	*107*		*70 - 130*	*03/08/22 08:46*	*03/09/22 07:10*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Client Sample ID: T1

Lab Sample ID: 880-12070-4
Matrix: Solid
Date Collected: 03/03/22 13:15
Date Received: 03/04/22 16:12
Sample Depth: 4'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**631**		4.99		mg/Kg			03/12/22 00:11	1

Client Sample ID: T1

Lab Sample ID: 880-12070-5
Matrix: Solid
Date Collected: 03/03/22 13:20
Date Received: 03/04/22 16:12
Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:59	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:59	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:59	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/09/22 08:00	03/09/22 18:59	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/09/22 08:00	03/09/22 18:59	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/09/22 08:00	03/09/22 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/09/22 08:00*	*03/09/22 18:59*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 08:00*	*03/09/22 18:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**378**		50.0		mg/Kg			03/09/22 19:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/08/22 08:46	03/09/22 07:32	1
Diesel Range Organics (Over C10-C28)	**378**		50.0		mg/Kg		03/08/22 08:46	03/09/22 07:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/08/22 08:46	03/09/22 07:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*03/08/22 08:46*	*03/09/22 07:32*	*1*
o-Terphenyl	*113*		*70 - 130*	*03/08/22 08:46*	*03/09/22 07:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**572**		4.97		mg/Kg			03/12/22 00:17	1

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-12070-1	T1	102	98
880-12070-2	T1	107	87
880-12070-3	T1	97	96
880-12070-4	T1	111	101
880-12070-5	T1	108	99
880-12188-A-1-B MS	Matrix Spike	105	99
880-12188-A-1-C MSD	Matrix Spike Duplicate	106	91
LCS 880-20906/1-A	Lab Control Sample	102	100
LCSD 880-20906/2-A	Lab Control Sample Dup	101	99
MB 880-20906/5-A	Method Blank	99	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-12070-1	T1	120	111
880-12070-2	T1	115	114
880-12070-3	T1	122	117
880-12070-4	T1	111	107
880-12070-5	T1	115	113
880-12075-A-21-B MS	Matrix Spike	106	86
880-12075-A-21-C MSD	Matrix Spike Duplicate	110	89
LCS 880-21112/2-A	Lab Control Sample	102	89
LCSD 880-21112/3-A	Lab Control Sample Dup	106	93
MB 880-21112/1-A	Method Blank	137 S1+	139 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20906/5-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*

Lab Sample ID: LCS 880-20906/1-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20906

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1098		mg/Kg		110	70 - 130
Toluene	0.100	0.1071		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1056		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2185		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1055		mg/Kg		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-20906/2-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20906

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1039		mg/Kg		104	70 - 130	6	35
Toluene	0.100	0.1013		mg/Kg		101	70 - 130	6	35
Ethylbenzene	0.100	0.1002		mg/Kg		100	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2074		mg/Kg		104	70 - 130	5	35
o-Xylene	0.100	0.1000		mg/Kg		100	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-12188-A-1-B MS
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20906

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.101	0.08725		mg/Kg		86	70 - 130
Toluene	<0.00200	U	0.101	0.08724		mg/Kg		86	70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

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

Lab Sample ID: 880-12188-A-1-B MS
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20906

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.0299		0.101	0.1178		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.131		0.201	0.3157		mg/Kg		92	70 - 130
o-Xylene	0.0665		0.101	0.1543		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-12188-A-1-C MSD
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20906

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.09837		mg/Kg		99	70 - 130	12	35
Toluene	<0.00200	U	0.0990	0.1008		mg/Kg		101	70 - 130	14	35
Ethylbenzene	0.0299		0.0990	0.1225		mg/Kg		94	70 - 130	4	35
m-Xylene & p-Xylene	0.131		0.198	0.3104		mg/Kg		91	70 - 130	2	35
o-Xylene	0.0665		0.0990	0.1540		mg/Kg		88	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-21112/1-A
Matrix: Solid
Analysis Batch: 21117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21112

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/08/22 08:46	03/08/22 22:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/08/22 08:46	03/08/22 22:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/08/22 08:46	03/08/22 22:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*03/08/22 08:46*	*03/08/22 22:17*	*1*
o-Terphenyl	*139*	*S1+*	*70 - 130*	*03/08/22 08:46*	*03/08/22 22:17*	*1*

Lab Sample ID: LCS 880-21112/2-A
Matrix: Solid
Analysis Batch: 21117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21112

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	840.9		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	908.4		mg/Kg		91	70 - 130

Eurofins Midland

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-21112/2-A
Matrix: Solid
Analysis Batch: 21117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21112

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: LCSD 880-21112/3-A
Matrix: Solid
Analysis Batch: 21117

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21112

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	824.5		mg/Kg		82	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	915.1		mg/Kg		92	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 880-12075-A-21-B MS
Matrix: Solid
Analysis Batch: 21117

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21112

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1151		mg/Kg		113	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1134		mg/Kg		110	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 880-12075-A-21-C MSD
Matrix: Solid
Analysis Batch: 21117

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21112

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1243		mg/Kg		122	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1186		mg/Kg		115	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	89		70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21033/1-A
Matrix: Solid
Analysis Batch: 21203

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/11/22 21:26	1

Lab Sample ID: LCS 880-21033/2-A
Matrix: Solid
Analysis Batch: 21203

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.9		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-21033/3-A
Matrix: Solid
Analysis Batch: 21203

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	271.2		mg/Kg		108	90 - 110	2	20

Lab Sample ID: 880-12069-A-8-C MS
Matrix: Solid
Analysis Batch: 21203

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	705		250	932.2		mg/Kg		91	90 - 110		

Lab Sample ID: 880-12069-A-8-D MSD
Matrix: Solid
Analysis Batch: 21203

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	705		250	954.0		mg/Kg		99	90 - 110	2	20

Lab Sample ID: 880-12069-A-18-D MS
Matrix: Solid
Analysis Batch: 21203

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1230		1250	2466		mg/Kg		99	90 - 110		

Lab Sample ID: 880-12069-A-18-E MSD
Matrix: Solid
Analysis Batch: 21203

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1230		1250	2467		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

GC VOA

Prep Batch: 20906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Total/NA	Solid	5035	
880-12070-2	T1	Total/NA	Solid	5035	
880-12070-3	T1	Total/NA	Solid	5035	
880-12070-4	T1	Total/NA	Solid	5035	
880-12070-5	T1	Total/NA	Solid	5035	
MB 880-20906/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20906/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20906/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12188-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-12188-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Total/NA	Solid	8021B	20906
880-12070-2	T1	Total/NA	Solid	8021B	20906
880-12070-3	T1	Total/NA	Solid	8021B	20906
880-12070-4	T1	Total/NA	Solid	8021B	20906
880-12070-5	T1	Total/NA	Solid	8021B	20906
MB 880-20906/5-A	Method Blank	Total/NA	Solid	8021B	20906
LCS 880-20906/1-A	Lab Control Sample	Total/NA	Solid	8021B	20906
LCSD 880-20906/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20906
880-12188-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	20906
880-12188-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20906

Analysis Batch: 21335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Total/NA	Solid	Total BTEX	
880-12070-2	T1	Total/NA	Solid	Total BTEX	
880-12070-3	T1	Total/NA	Solid	Total BTEX	
880-12070-4	T1	Total/NA	Solid	Total BTEX	
880-12070-5	T1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Total/NA	Solid	8015NM Prep	
880-12070-2	T1	Total/NA	Solid	8015NM Prep	
880-12070-3	T1	Total/NA	Solid	8015NM Prep	
880-12070-4	T1	Total/NA	Solid	8015NM Prep	
880-12070-5	T1	Total/NA	Solid	8015NM Prep	
MB 880-21112/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21112/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21112/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12075-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12075-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Total/NA	Solid	8015B NM	21112
880-12070-2	T1	Total/NA	Solid	8015B NM	21112

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

GC Semi VOA (Continued)

Analysis Batch: 21117 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-3	T1	Total/NA	Solid	8015B NM	21112
880-12070-4	T1	Total/NA	Solid	8015B NM	21112
880-12070-5	T1	Total/NA	Solid	8015B NM	21112
MB 880-21112/1-A	Method Blank	Total/NA	Solid	8015B NM	21112
LCS 880-21112/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21112
LCSD 880-21112/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21112
880-12075-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	21112
880-12075-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21112

Analysis Batch: 21254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Total/NA	Solid	8015 NM	
880-12070-2	T1	Total/NA	Solid	8015 NM	
880-12070-3	T1	Total/NA	Solid	8015 NM	
880-12070-4	T1	Total/NA	Solid	8015 NM	
880-12070-5	T1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Soluble	Solid	DI Leach	
880-12070-2	T1	Soluble	Solid	DI Leach	
880-12070-3	T1	Soluble	Solid	DI Leach	
880-12070-4	T1	Soluble	Solid	DI Leach	
880-12070-5	T1	Soluble	Solid	DI Leach	
MB 880-21033/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21033/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21033/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12069-A-8-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12069-A-8-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-12069-A-18-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12069-A-18-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 21203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12070-1	T1	Soluble	Solid	300.0	21033
880-12070-2	T1	Soluble	Solid	300.0	21033
880-12070-3	T1	Soluble	Solid	300.0	21033
880-12070-4	T1	Soluble	Solid	300.0	21033
880-12070-5	T1	Soluble	Solid	300.0	21033
MB 880-21033/1-A	Method Blank	Soluble	Solid	300.0	21033
LCS 880-21033/2-A	Lab Control Sample	Soluble	Solid	300.0	21033
LCSD 880-21033/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21033
880-12069-A-8-C MS	Matrix Spike	Soluble	Solid	300.0	21033
880-12069-A-8-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	21033
880-12069-A-18-D MS	Matrix Spike	Soluble	Solid	300.0	21033
880-12069-A-18-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	21033

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Client Sample ID: T1

Lab Sample ID: 880-12070-1
Matrix: Solid
Date Collected: 03/03/22 13:00
Date Received: 03/04/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20906	03/09/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 17:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21335	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21254	03/09/22 19:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21112	03/08/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21117	03/09/22 06:07	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21033	03/07/22 11:03	CH	XEN MID
Soluble	Analysis	300.0		1			21203	03/11/22 23:53	CH	XEN MID

Client Sample ID: T1

Lab Sample ID: 880-12070-2
Matrix: Solid
Date Collected: 03/03/22 13:05
Date Received: 03/04/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20906	03/09/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 17:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21335	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21254	03/09/22 19:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21112	03/08/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21117	03/09/22 06:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21033	03/07/22 11:03	CH	XEN MID
Soluble	Analysis	300.0		5			21203	03/11/22 23:59	CH	XEN MID

Client Sample ID: T1

Lab Sample ID: 880-12070-3
Matrix: Solid
Date Collected: 03/03/22 13:10
Date Received: 03/04/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20906	03/09/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 18:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21335	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21254	03/09/22 19:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21112	03/08/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21117	03/09/22 06:48	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	21033	03/07/22 11:03	CH	XEN MID
Soluble	Analysis	300.0		5			21203	03/12/22 00:05	CH	XEN MID

Client Sample ID: T1

Lab Sample ID: 880-12070-4
Matrix: Solid
Date Collected: 03/03/22 13:15
Date Received: 03/04/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20906	03/09/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 18:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21335	03/10/22 16:12	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Client Sample ID: T1

Lab Sample ID: 880-12070-4
Matrix: Solid
Date Collected: 03/03/22 13:15
Date Received: 03/04/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21254	03/09/22 19:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	21112	03/08/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21117	03/09/22 07:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21033	03/07/22 11:03	CH	XEN MID
Soluble	Analysis	300.0		1			21203	03/12/22 00:11	CH	XEN MID

Client Sample ID: T1

Lab Sample ID: 880-12070-5
Matrix: Solid
Date Collected: 03/03/22 13:20
Date Received: 03/04/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20906	03/09/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 18:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21335	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21254	03/09/22 19:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21112	03/08/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21117	03/09/22 07:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21033	03/07/22 11:03	CH	XEN MID
Soluble	Analysis	300.0		1			21203	03/12/22 00:17	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12070-1
SDG: Andrews

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12070-1	T1	Solid	03/03/22 13:00	03/04/22 16:12	0-6"
880-12070-2	T1	Solid	03/03/22 13:05	03/04/22 16:12	2'
880-12070-3	T1	Solid	03/03/22 13:10	03/04/22 16:12	3'
880-12070-4	T1	Solid	03/03/22 13:15	03/04/22 16:12	4'
880-12070-5	T1	Solid	03/03/22 13:20	03/04/22 16:12	4.5'

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Environment Testing Xenco

Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 12070

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Project Manager	Grant Huckabay	Bill to (if different)	
Company Name	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address	
City State ZIP	Midland TX 79707	City State ZIP	
Phone	432-687-1777	Email	granth@forl com / addisong@forl com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT D SWD	Turn Around	☒ Routine ☐ Rush
Project Number		Pres. Code	
Project Location	Andrews	Due Date	3/10/22
Sampler's Name	Addison Guelker	TAT starts the day received by the lab if received by 4 30pm	
PO #			

SAMPLE RECEIPT				
Temp Blank	Yes No	Wet Ice	Yes No	
Samples Received Intact	Yes No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No N/A	Correction Factor	-1	
Sample Custody Seals	Yes No N/A	Temperature Reading	1.2	
Total Containers		Corrected Temperature	1.1	

ANALYSIS REQUEST

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: CL	EC	TPH 8015M	BTEX 8021B
T1	S	3/3/22	1 00 P	0-6'	G	1	X	X	X	X
T1			1.05 P	2'		1	X		X	X
T1			1.10 P	3'			X		X	X
T1			1.15 P	4'			X		X	X
T1		3/3/22	1.20 P	4.5'	G	1	X		X	X

Sample Comments

880-12070 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		3/4/22 16:12	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12600-1
Client Project/Site: Cabot Q SWD

For:
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Attn: Grant Huckabay

JKramer

Authorized for release by:
3/29/2022 10:37:48 AM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Laboratory Job ID: 880-12600-1

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Definitions/Glossary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Job ID: 880-12600-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12600-1

Receipt
The samples were received on 3/18/2022 3:12 PM. 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 5.1°C

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-21917 and analytical batch 880-21985 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H1

Lab Sample ID: 880-12600-1

Date Collected: 03/18/22 09:05
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F2 F1	0.00199		mg/Kg		03/23/22 07:30	03/23/22 12:21	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		03/23/22 07:30	03/23/22 12:21	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		03/23/22 07:30	03/23/22 12:21	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		03/23/22 07:30	03/23/22 12:21	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		03/23/22 07:30	03/23/22 12:21	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		03/23/22 07:30	03/23/22 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/23/22 07:30*	*03/23/22 12:21*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*03/23/22 07:30*	*03/23/22 12:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/18/22 15:35	03/21/22 12:18	1
Diesel Range Organics (Over C10-C28)	<49.8	U F1	49.8		mg/Kg		03/18/22 15:35	03/21/22 12:18	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/22 15:35	03/21/22 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/18/22 15:35*	*03/21/22 12:18*	*1*
o-Terphenyl	*98*		*70 - 130*	*03/18/22 15:35*	*03/21/22 12:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/28/22 20:25	1

Client Sample ID: H1

Lab Sample ID: 880-12600-2

Date Collected: 03/18/22 09:10
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:41	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/23/22 07:30	03/23/22 12:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:41	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/23/22 07:30	03/23/22 12:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/23/22 07:30*	*03/23/22 12:41*	*1*

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H1

Lab Sample ID: 880-12600-2

Date Collected: 03/18/22 09:10
Date Received: 03/18/22 15:12
Sample Depth: 1'

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/23/22 07:30*	*03/23/22 12:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 13:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 13:22	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/18/22 15:35*	*03/21/22 13:22*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/18/22 15:35*	*03/21/22 13:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.8**		4.97		mg/Kg			03/28/22 20:52	1

Client Sample ID: H2

Lab Sample ID: 880-12600-3

Date Collected: 03/18/22 09:15
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 13:02	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 13:02	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 13:02	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/23/22 07:30	03/23/22 13:02	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 13:02	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/23/22 07:30	03/23/22 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:02*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/22/22 09:23	1

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H2

Lab Sample ID: 880-12600-3
Matrix: Solid
Date Collected: 03/18/22 09:15
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 13:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 13:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*03/18/22 15:35*	*03/21/22 13:44*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/18/22 15:35*	*03/21/22 13:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**109**		4.98		mg/Kg			03/28/22 21:01	1

Client Sample ID: H2

Lab Sample ID: 880-12600-4
Matrix: Solid
Date Collected: 03/18/22 09:20
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 13:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:22*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 14:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 14:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/18/22 15:35*	*03/21/22 14:05*	*1*
o-Terphenyl	*107*		*70 - 130*	*03/18/22 15:35*	*03/21/22 14:05*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H2

Lab Sample ID: 880-12600-4
Matrix: Solid
Date Collected: 03/18/22 09:20
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	572		25.1		mg/Kg			03/28/22 21:10	5

Client Sample ID: H3

Lab Sample ID: 880-12600-5
Matrix: Solid
Date Collected: 03/18/22 09:25
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/23/22 07:30	03/23/22 13:43	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/23/22 07:30	03/23/22 13:43	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/23/22 07:30	03/23/22 13:43	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/23/22 07:30	03/23/22 13:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/23/22 07:30	03/23/22 13:43	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/23/22 07:30	03/23/22 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:43*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 14:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 14:26	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/18/22 15:35*	*03/21/22 14:26*	*1*
o-Terphenyl	*110*		*70 - 130*	*03/18/22 15:35*	*03/21/22 14:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	60.3		4.98		mg/Kg			03/28/22 21:19	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H3

Lab Sample ID: 880-12600-6

Date Collected: 03/18/22 09:30
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 14:03	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 14:03	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 14:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 14:03	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 14:03	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:03*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**84.7**		50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 14:47	1
Diesel Range Organics (Over C10-C28)	**84.7**		50.0		mg/Kg		03/18/22 15:35	03/21/22 14:47	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*03/18/22 15:35*	*03/21/22 14:47*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/18/22 15:35*	*03/21/22 14:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**49.9**		4.95		mg/Kg			03/28/22 21:45	1

Client Sample ID: H4

Lab Sample ID: 880-12600-7

Date Collected: 03/18/22 09:35
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 14:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:24*	*1*

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Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H4

Lab Sample ID: 880-12600-7

Date Collected: 03/18/22 09:35
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 15:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 15:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/18/22 15:35*	*03/21/22 15:08*	*1*
o-Terphenyl	*110*		*70 - 130*	*03/18/22 15:35*	*03/21/22 15:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.03**		5.05		mg/Kg			03/28/22 21:54	1

Client Sample ID: H4

Lab Sample ID: 880-12600-8

Date Collected: 03/18/22 09:40
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 14:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 14:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 14:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/23/22 07:30	03/23/22 14:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 14:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/23/22 07:30	03/23/22 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:44*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/22/22 09:23	1

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Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H4

Lab Sample ID: 880-12600-8
Matrix: Solid
Date Collected: 03/18/22 09:40
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 15:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 15:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*130*		*70 - 130*	*03/18/22 15:35*	*03/21/22 15:29*	*1*
o-Terphenyl	*126*		*70 - 130*	*03/18/22 15:35*	*03/21/22 15:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**671**		4.99		mg/Kg			03/28/22 22:03	1

Client Sample ID: H5

Lab Sample ID: 880-12600-9
Matrix: Solid
Date Collected: 03/18/22 09:45
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/23/22 07:30	03/23/22 15:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/23/22 07:30	03/23/22 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/23/22 07:30*	*03/23/22 15:05*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 15:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 15:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 15:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/18/22 15:35*	*03/21/22 15:50*	*1*
o-Terphenyl	*108*		*70 - 130*	*03/18/22 15:35*	*03/21/22 15:50*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H5

Lab Sample ID: 880-12600-9
Matrix: Solid
Date Collected: 03/18/22 09:45
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.8		4.98		mg/Kg			03/28/22 22:12	1

Client Sample ID: H5

Lab Sample ID: 880-12600-10
Matrix: Solid
Date Collected: 03/18/22 09:50
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 15:25	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 15:25	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 15:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 15:25	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 15:25	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/23/22 07:30*	*03/23/22 15:25*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/23/22 07:30*	*03/23/22 15:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 16:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 16:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/18/22 15:35*	*03/21/22 16:12*	*1*
o-Terphenyl	*109*		*70 - 130*	*03/18/22 15:35*	*03/21/22 16:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	153		5.01		mg/Kg			03/28/22 22:21	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H6

Lab Sample ID: 880-12600-11
Matrix: Solid
Date Collected: 03/18/22 10:05
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:18	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:18	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 13:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:18	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:18*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:18*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 16:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 16:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/18/22 15:35*	*03/21/22 16:54*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/18/22 15:35*	*03/21/22 16:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.4**		5.00		mg/Kg			03/28/22 22:30	1

Client Sample ID: H6

Lab Sample ID: 880-12600-12
Matrix: Solid
Date Collected: 03/18/22 10:10
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 13:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 13:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:39*	*1*

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Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H6

Lab Sample ID: 880-12600-12

Date Collected: 03/18/22 10:10
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:15	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/18/22 15:35*	*03/21/22 17:15*	*1*
o-Terphenyl	*107*		*70 - 130*	*03/18/22 15:35*	*03/21/22 17:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.7**		4.99		mg/Kg			03/28/22 22:56	1

Client Sample ID: H7

Lab Sample ID: 880-12600-13

Date Collected: 03/18/22 10:15
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 13:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 13:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:59*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/23/22 07:30*	*03/23/22 13:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

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Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H7

Lab Sample ID: 880-12600-13
Matrix: Solid
Date Collected: 03/18/22 10:15
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/18/22 15:35*	*03/21/22 17:36*	*1*
o-Terphenyl	*96*		*70 - 130*	*03/18/22 15:35*	*03/21/22 17:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.2**		4.95		mg/Kg			03/28/22 23:05	1

Client Sample ID: H7

Lab Sample ID: 880-12600-14
Matrix: Solid
Date Collected: 03/18/22 10:20
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 14:19	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 14:19	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 14:19	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/23/22 07:30	03/23/22 14:19	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/23/22 07:30	03/23/22 14:19	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/23/22 07:30	03/23/22 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:19*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/18/22 15:35*	*03/21/22 17:56*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/18/22 15:35*	*03/21/22 17:56*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H7

Lab Sample ID: 880-12600-14
Matrix: Solid
Date Collected: 03/18/22 10:20
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96		mg/Kg			03/28/22 23:32	1

Client Sample ID: H8

Lab Sample ID: 880-12600-15
Matrix: Solid
Date Collected: 03/18/22 10:25
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 14:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 14:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:40*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/23/22 07:30*	*03/23/22 14:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 18:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 18:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/18/22 15:35*	*03/21/22 18:17*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/18/22 15:35*	*03/21/22 18:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			03/28/22 23:41	1

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H8

Lab Sample ID: 880-12600-16
Matrix: Solid
Date Collected: 03/18/22 10:30
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/23/22 07:30	03/23/22 15:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 15:00	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/23/22 07:30	03/23/22 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/23/22 07:30*	*03/23/22 15:00*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/23/22 07:30*	*03/23/22 15:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 18:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 18:38	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/18/22 15:35*	*03/21/22 18:38*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/18/22 15:35*	*03/21/22 18:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.1**		4.98		mg/Kg			03/28/22 23:49	1

Client Sample ID: H9

Lab Sample ID: 880-12600-17
Matrix: Solid
Date Collected: 03/18/22 10:35
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 18:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 18:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 18:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/23/22 07:30	03/23/22 18:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 18:12	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/23/22 07:30	03/23/22 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 18:12*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H9

Lab Sample ID: 880-12600-17

Date Collected: 03/18/22 10:35
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/23/22 07:30*	*03/23/22 18:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/18/22 15:35	03/21/22 18:59	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/18/22 15:35	03/21/22 18:59	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/22 15:35	03/21/22 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*103*		*70 - 130*	*03/18/22 15:35*	*03/21/22 18:59*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/18/22 15:35*	*03/21/22 18:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/28/22 23:58	1

Client Sample ID: H9

Lab Sample ID: 880-12600-18

Date Collected: 03/18/22 10:40
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 18:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 18:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 18:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 18:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 07:30	03/23/22 18:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 07:30	03/23/22 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 18:32*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/23/22 07:30*	*03/23/22 18:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Eurofins Midland

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H9

Lab Sample ID: 880-12600-18

Date Collected: 03/18/22 10:40
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 19:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 19:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/18/22 15:35*	*03/21/22 19:20*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/18/22 15:35*	*03/21/22 19:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.5**		5.01		mg/Kg			03/29/22 00:07	1

Client Sample ID: H10

Lab Sample ID: 880-12600-19

Date Collected: 03/18/22 10:45
Matrix: Solid
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 18:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 18:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 18:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 18:53	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 18:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/23/22 07:30*	*03/23/22 18:53*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/23/22 07:30*	*03/23/22 18:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 19:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 19:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/18/22 15:35*	*03/21/22 19:40*	*1*
o-Terphenyl	*100*		*70 - 130*	*03/18/22 15:35*	*03/21/22 19:40*	*1*

Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H10

Lab Sample ID: 880-12600-19
Matrix: Solid
Date Collected: 03/18/22 10:45
Date Received: 03/18/22 15:12
Sample Depth: 0-6"

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.9		4.95		mg/Kg			03/29/22 00:16	1

Client Sample ID: H10

Lab Sample ID: 880-12600-20
Matrix: Solid
Date Collected: 03/18/22 10:50
Date Received: 03/18/22 15:12
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 19:13	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 19:13	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 19:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 19:13	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/23/22 07:30	03/23/22 19:13	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/23/22 07:30	03/23/22 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/23/22 07:30*	*03/23/22 19:13*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/23/22 07:30*	*03/23/22 19:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/23/22 14:43	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/22/22 09:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 20:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 20:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 15:35	03/21/22 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*03/18/22 15:35*	*03/21/22 20:01*	*1*
o-Terphenyl	*93*		*70 - 130*	*03/18/22 15:35*	*03/21/22 20:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.9		5.00		mg/Kg			03/29/22 00:25	1

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-12600-1	H1	107	111
880-12600-1 MS	H1	106	103
880-12600-1 MSD	H1	106	111
880-12600-2	H1	105	110
880-12600-3	H2	105	104
880-12600-4	H2	106	110
880-12600-5	H3	103	107
880-12600-6	H3	104	109
880-12600-7	H4	103	108
880-12600-8	H4	105	109
880-12600-9	H5	102	109
880-12600-10	H5	105	108
880-12600-11	H6	103	105
880-12600-11 MS	H6	104	99
880-12600-11 MSD	H6	103	91
880-12600-12	H6	106	104
880-12600-13	H7	109	102
880-12600-14	H7	109	105
880-12600-15	H8	114	101
880-12600-16	H8	106	100
880-12600-17	H9	109	96
880-12600-18	H9	109	102
880-12600-19	H10	111	102
880-12600-20	H10	109	101
LCS 880-21852/1-A	Lab Control Sample	97	101
LCS 880-21854/1-A	Lab Control Sample	102	110
LCSD 880-21852/2-A	Lab Control Sample Dup	96	101
LCSD 880-21854/2-A	Lab Control Sample Dup	102	109
MB 880-21852/5-A	Method Blank	99	101
MB 880-21854/5-B	Method Blank	103	104

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-12600-1	H1	100	98
880-12600-1 MS	H1	84	74
880-12600-1 MSD	H1	97	89
880-12600-2	H1	105	103
880-12600-3	H2	111	112
880-12600-4	H2	105	107
880-12600-5	H3	109	110
880-12600-6	H3	103	103
880-12600-7	H4	112	110

Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
880-12600-8	H4	130	126								
880-12600-9	H5	109	108								
880-12600-10	H5	106	109								
880-12600-11	H6	109	106								
880-12600-12	H6	105	107								
880-12600-13	H7	102	96								
880-12600-14	H7	106	103								
880-12600-15	H8	105	104								
880-12600-16	H8	104	105								
880-12600-17	H9	103	103								
880-12600-18	H9	105	104								
880-12600-19	H10	100	100								
880-12600-20	H10	93	93								
LCS 880-21917/2-A	Lab Control Sample	105	105								
LCSD 880-21917/3-A	Lab Control Sample Dup	92	90								
MB 880-21917/1-A	Method Blank	103	107								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21852/5-A
Matrix: Solid
Analysis Batch: 22187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21852

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 12:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 12:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 12:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/23/22 07:30*	*03/23/22 12:49*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/23/22 07:30*	*03/23/22 12:49*	*1*

Lab Sample ID: LCS 880-21852/1-A
Matrix: Solid
Analysis Batch: 22187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21852

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09925		mg/Kg		99	70 - 130		
Toluene			0.100	0.09683		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.09894		mg/Kg		99	70 - 130		
m-Xylene & p-Xylene			0.200	0.2312		mg/Kg		116	70 - 130		
o-Xylene			0.100	0.1122		mg/Kg		112	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-21852/2-A
Matrix: Solid
Analysis Batch: 22187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21852

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09329		mg/Kg		93	70 - 130	6	35
Toluene			0.100	0.09152		mg/Kg		92	70 - 130	6	35
Ethylbenzene			0.100	0.09201		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.2158		mg/Kg		108	70 - 130	7	35
o-Xylene			0.100	0.1060		mg/Kg		106	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-12600-11 MS
Matrix: Solid
Analysis Batch: 22187

Client Sample ID: H6
Prep Type: Total/NA
Prep Batch: 21852

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.100	0.06760	F1	mg/Kg		67	70 - 130		
Toluene	<0.00199	U F1	0.100	0.06910	F1	mg/Kg		69	70 - 130		

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

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

Lab Sample ID: 880-12600-11 MS
Matrix: Solid
Analysis Batch: 22187

Client Sample ID: H6
Prep Type: Total/NA
Prep Batch: 21852

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1	0.100	0.07113		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1660		mg/Kg		83	70 - 130
o-Xylene	<0.00199	U	0.100	0.08608		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-12600-11 MSD
Matrix: Solid
Analysis Batch: 22187

Client Sample ID: H6
Prep Type: Total/NA
Prep Batch: 21852

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0996	0.05246	F1	mg/Kg		53	70 - 130	25	35
Toluene	<0.00199	U F1	0.0996	0.05931	F1	mg/Kg		60	70 - 130	15	35
Ethylbenzene	<0.00199	U F1	0.0996	0.06359	F1	mg/Kg		64	70 - 130	11	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1459		mg/Kg		73	70 - 130	13	35
o-Xylene	<0.00199	U	0.0996	0.07610		mg/Kg		76	70 - 130	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: MB 880-21854/5-B
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 11:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/23/22 07:30*	*03/23/22 11:59*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/23/22 07:30*	*03/23/22 11:59*	*1*

Lab Sample ID: LCS 880-21854/1-A
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21854

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09671		mg/Kg		97	70 - 130
Toluene	0.100	0.09718		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.09994		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.2047		mg/Kg		102	70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

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

Lab Sample ID: LCS 880-21854/1-A
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21854

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.1013		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-21854/2-A
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21854

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09015		mg/Kg		90	70 - 130	7	35
Toluene			0.100	0.09019		mg/Kg		90	70 - 130	7	35
Ethylbenzene			0.100	0.09346		mg/Kg		93	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1922		mg/Kg		96	70 - 130	6	35
o-Xylene			0.100	0.09452		mg/Kg		95	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 880-12600-1 MS
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: H1
Prep Type: Total/NA
Prep Batch: 21854

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F2 F1	0.100	0.04998	F1	mg/Kg		50	70 - 130		
Toluene	<0.00199	U F1	0.100	0.05467	F1	mg/Kg		54	70 - 130		
Ethylbenzene	<0.00199	U F1	0.100	0.05527	F1	mg/Kg		55	70 - 130		
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1120	F1	mg/Kg		56	70 - 130		
o-Xylene	<0.00199	U F1	0.100	0.05918	F1	mg/Kg		59	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-12600-1 MSD
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: H1
Prep Type: Total/NA
Prep Batch: 21854

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.101	0.07415	F2	mg/Kg		73	70 - 130	39	35
Toluene	<0.00199	U F1	0.101	0.06882	F1	mg/Kg		68	70 - 130	23	35
Ethylbenzene	<0.00199	U F1	0.101	0.06557	F1	mg/Kg		65	70 - 130	17	35
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1344	F1	mg/Kg		67	70 - 130	18	35
o-Xylene	<0.00199	U F1	0.101	0.06757	F1	mg/Kg		67	70 - 130	13	35

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

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

Lab Sample ID: 880-12600-1 MSD
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: H1
Prep Type: Total/NA
Prep Batch: 21854

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-21917/1-A
Matrix: Solid
Analysis Batch: 21985

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 11:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 11:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 15:35	03/21/22 11:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	03/18/22 15:35	03/21/22 11:14	1
o-Terphenyl	107		70 - 130	03/18/22 15:35	03/21/22 11:14	1

Lab Sample ID: LCS 880-21917/2-A
Matrix: Solid
Analysis Batch: 21985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21917

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	801.3		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1012		mg/Kg		101	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: LCSD 880-21917/3-A
Matrix: Solid
Analysis Batch: 21985

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21917

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	838.2		mg/Kg		84	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	871.7		mg/Kg		87	70 - 130	15	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	90		70 - 130

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-12600-1 MS
Matrix: Solid
Analysis Batch: 21985

Client Sample ID: H1
Prep Type: Total/NA
Prep Batch: 21917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	818.6		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F1	998	653.4	F1	mg/Kg		62	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Lab Sample ID: 880-12600-1 MSD
Matrix: Solid
Analysis Batch: 21985

Client Sample ID: H1
Prep Type: Total/NA
Prep Batch: 21917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	817.6		mg/Kg		82	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	999	758.6		mg/Kg		73	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21923/1-A
Matrix: Solid
Analysis Batch: 22049

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/28/22 19:59	1

Lab Sample ID: LCS 880-21923/2-A
Matrix: Solid
Analysis Batch: 22049

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	243.7		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-21923/3-A
Matrix: Solid
Analysis Batch: 22049

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	245.0		mg/Kg		98	90 - 110	1	20

QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-12600-1 MS — **Client Sample ID: H1**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22049

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	<5.00	U	250	270.2		mg/Kg		107	90 - 110		

Lab Sample ID: 880-12600-1 MSD — **Client Sample ID: H1**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22049

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<5.00	U	250	254.2		mg/Kg		100	90 - 110	6	20

Lab Sample ID: 880-12600-11 MS — **Client Sample ID: H6**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22049

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	31.4		250	285.3		mg/Kg		102	90 - 110		

Lab Sample ID: 880-12600-11 MSD — **Client Sample ID: H6**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22049

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	31.4		250	279.8		mg/Kg		99	90 - 110	2	20

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

GC VOA

Prep Batch: 21852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-11	H6	Total/NA	Solid	5035	
880-12600-12	H6	Total/NA	Solid	5035	
880-12600-13	H7	Total/NA	Solid	5035	
880-12600-14	H7	Total/NA	Solid	5035	
880-12600-15	H8	Total/NA	Solid	5035	
880-12600-16	H8	Total/NA	Solid	5035	
880-12600-17	H9	Total/NA	Solid	5035	
880-12600-18	H9	Total/NA	Solid	5035	
880-12600-19	H10	Total/NA	Solid	5035	
880-12600-20	H10	Total/NA	Solid	5035	
MB 880-21852/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21852/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21852/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12600-11 MS	H6	Total/NA	Solid	5035	
880-12600-11 MSD	H6	Total/NA	Solid	5035	

Prep Batch: 21854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Total/NA	Solid	5035	
880-12600-2	H1	Total/NA	Solid	5035	
880-12600-3	H2	Total/NA	Solid	5035	
880-12600-4	H2	Total/NA	Solid	5035	
880-12600-5	H3	Total/NA	Solid	5035	
880-12600-6	H3	Total/NA	Solid	5035	
880-12600-7	H4	Total/NA	Solid	5035	
880-12600-8	H4	Total/NA	Solid	5035	
880-12600-9	H5	Total/NA	Solid	5035	
880-12600-10	H5	Total/NA	Solid	5035	
MB 880-21854/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-21854/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21854/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12600-1 MS	H1	Total/NA	Solid	5035	
880-12600-1 MSD	H1	Total/NA	Solid	5035	

Analysis Batch: 22183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Total/NA	Solid	8021B	21854
880-12600-2	H1	Total/NA	Solid	8021B	21854
880-12600-3	H2	Total/NA	Solid	8021B	21854
880-12600-4	H2	Total/NA	Solid	8021B	21854
880-12600-5	H3	Total/NA	Solid	8021B	21854
880-12600-6	H3	Total/NA	Solid	8021B	21854
880-12600-7	H4	Total/NA	Solid	8021B	21854
880-12600-8	H4	Total/NA	Solid	8021B	21854
880-12600-9	H5	Total/NA	Solid	8021B	21854
880-12600-10	H5	Total/NA	Solid	8021B	21854
MB 880-21854/5-B	Method Blank	Total/NA	Solid	8021B	21854
LCS 880-21854/1-A	Lab Control Sample	Total/NA	Solid	8021B	21854
LCSD 880-21854/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21854
880-12600-1 MS	H1	Total/NA	Solid	8021B	21854
880-12600-1 MSD	H1	Total/NA	Solid	8021B	21854

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

GC VOA

Analysis Batch: 22187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-11	H6	Total/NA	Solid	8021B	21852
880-12600-12	H6	Total/NA	Solid	8021B	21852
880-12600-13	H7	Total/NA	Solid	8021B	21852
880-12600-14	H7	Total/NA	Solid	8021B	21852
880-12600-15	H8	Total/NA	Solid	8021B	21852
880-12600-16	H8	Total/NA	Solid	8021B	21852
880-12600-17	H9	Total/NA	Solid	8021B	21852
880-12600-18	H9	Total/NA	Solid	8021B	21852
880-12600-19	H10	Total/NA	Solid	8021B	21852
880-12600-20	H10	Total/NA	Solid	8021B	21852
MB 880-21852/5-A	Method Blank	Total/NA	Solid	8021B	21852
LCS 880-21852/1-A	Lab Control Sample	Total/NA	Solid	8021B	21852
LCSD 880-21852/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21852
880-12600-11 MS	H6	Total/NA	Solid	8021B	21852
880-12600-11 MSD	H6	Total/NA	Solid	8021B	21852

Analysis Batch: 22223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Total/NA	Solid	Total BTEX	
880-12600-2	H1	Total/NA	Solid	Total BTEX	
880-12600-3	H2	Total/NA	Solid	Total BTEX	
880-12600-4	H2	Total/NA	Solid	Total BTEX	
880-12600-5	H3	Total/NA	Solid	Total BTEX	
880-12600-6	H3	Total/NA	Solid	Total BTEX	
880-12600-7	H4	Total/NA	Solid	Total BTEX	
880-12600-8	H4	Total/NA	Solid	Total BTEX	
880-12600-9	H5	Total/NA	Solid	Total BTEX	
880-12600-10	H5	Total/NA	Solid	Total BTEX	
880-12600-11	H6	Total/NA	Solid	Total BTEX	
880-12600-12	H6	Total/NA	Solid	Total BTEX	
880-12600-13	H7	Total/NA	Solid	Total BTEX	
880-12600-14	H7	Total/NA	Solid	Total BTEX	
880-12600-15	H8	Total/NA	Solid	Total BTEX	
880-12600-16	H8	Total/NA	Solid	Total BTEX	
880-12600-17	H9	Total/NA	Solid	Total BTEX	
880-12600-18	H9	Total/NA	Solid	Total BTEX	
880-12600-19	H10	Total/NA	Solid	Total BTEX	
880-12600-20	H10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Total/NA	Solid	8015NM Prep	
880-12600-2	H1	Total/NA	Solid	8015NM Prep	
880-12600-3	H2	Total/NA	Solid	8015NM Prep	
880-12600-4	H2	Total/NA	Solid	8015NM Prep	
880-12600-5	H3	Total/NA	Solid	8015NM Prep	
880-12600-6	H3	Total/NA	Solid	8015NM Prep	
880-12600-7	H4	Total/NA	Solid	8015NM Prep	
880-12600-8	H4	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

GC Semi VOA (Continued)

Prep Batch: 21917 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-9	H5	Total/NA	Solid	8015NM Prep	
880-12600-10	H5	Total/NA	Solid	8015NM Prep	
880-12600-11	H6	Total/NA	Solid	8015NM Prep	
880-12600-12	H6	Total/NA	Solid	8015NM Prep	
880-12600-13	H7	Total/NA	Solid	8015NM Prep	
880-12600-14	H7	Total/NA	Solid	8015NM Prep	
880-12600-15	H8	Total/NA	Solid	8015NM Prep	
880-12600-16	H8	Total/NA	Solid	8015NM Prep	
880-12600-17	H9	Total/NA	Solid	8015NM Prep	
880-12600-18	H9	Total/NA	Solid	8015NM Prep	
880-12600-19	H10	Total/NA	Solid	8015NM Prep	
880-12600-20	H10	Total/NA	Solid	8015NM Prep	
MB 880-21917/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21917/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21917/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12600-1 MS	H1	Total/NA	Solid	8015NM Prep	
880-12600-1 MSD	H1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Total/NA	Solid	8015B NM	21917
880-12600-2	H1	Total/NA	Solid	8015B NM	21917
880-12600-3	H2	Total/NA	Solid	8015B NM	21917
880-12600-4	H2	Total/NA	Solid	8015B NM	21917
880-12600-5	H3	Total/NA	Solid	8015B NM	21917
880-12600-6	H3	Total/NA	Solid	8015B NM	21917
880-12600-7	H4	Total/NA	Solid	8015B NM	21917
880-12600-8	H4	Total/NA	Solid	8015B NM	21917
880-12600-9	H5	Total/NA	Solid	8015B NM	21917
880-12600-10	H5	Total/NA	Solid	8015B NM	21917
880-12600-11	H6	Total/NA	Solid	8015B NM	21917
880-12600-12	H6	Total/NA	Solid	8015B NM	21917
880-12600-13	H7	Total/NA	Solid	8015B NM	21917
880-12600-14	H7	Total/NA	Solid	8015B NM	21917
880-12600-15	H8	Total/NA	Solid	8015B NM	21917
880-12600-16	H8	Total/NA	Solid	8015B NM	21917
880-12600-17	H9	Total/NA	Solid	8015B NM	21917
880-12600-18	H9	Total/NA	Solid	8015B NM	21917
880-12600-19	H10	Total/NA	Solid	8015B NM	21917
880-12600-20	H10	Total/NA	Solid	8015B NM	21917
MB 880-21917/1-A	Method Blank	Total/NA	Solid	8015B NM	21917
LCS 880-21917/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21917
LCSD 880-21917/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21917
880-12600-1 MS	H1	Total/NA	Solid	8015B NM	21917
880-12600-1 MSD	H1	Total/NA	Solid	8015B NM	21917

Analysis Batch: 22121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Total/NA	Solid	8015 NM	
880-12600-2	H1	Total/NA	Solid	8015 NM	
880-12600-3	H2	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

GC Semi VOA (Continued)

Analysis Batch: 22121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-4	H2	Total/NA	Solid	8015 NM	
880-12600-5	H3	Total/NA	Solid	8015 NM	
880-12600-6	H3	Total/NA	Solid	8015 NM	
880-12600-7	H4	Total/NA	Solid	8015 NM	
880-12600-8	H4	Total/NA	Solid	8015 NM	
880-12600-9	H5	Total/NA	Solid	8015 NM	
880-12600-10	H5	Total/NA	Solid	8015 NM	
880-12600-11	H6	Total/NA	Solid	8015 NM	
880-12600-12	H6	Total/NA	Solid	8015 NM	
880-12600-13	H7	Total/NA	Solid	8015 NM	
880-12600-14	H7	Total/NA	Solid	8015 NM	
880-12600-15	H8	Total/NA	Solid	8015 NM	
880-12600-16	H8	Total/NA	Solid	8015 NM	
880-12600-17	H9	Total/NA	Solid	8015 NM	
880-12600-18	H9	Total/NA	Solid	8015 NM	
880-12600-19	H10	Total/NA	Solid	8015 NM	
880-12600-20	H10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Soluble	Solid	DI Leach	
880-12600-2	H1	Soluble	Solid	DI Leach	
880-12600-3	H2	Soluble	Solid	DI Leach	
880-12600-4	H2	Soluble	Solid	DI Leach	
880-12600-5	H3	Soluble	Solid	DI Leach	
880-12600-6	H3	Soluble	Solid	DI Leach	
880-12600-7	H4	Soluble	Solid	DI Leach	
880-12600-8	H4	Soluble	Solid	DI Leach	
880-12600-9	H5	Soluble	Solid	DI Leach	
880-12600-10	H5	Soluble	Solid	DI Leach	
880-12600-11	H6	Soluble	Solid	DI Leach	
880-12600-12	H6	Soluble	Solid	DI Leach	
880-12600-13	H7	Soluble	Solid	DI Leach	
880-12600-14	H7	Soluble	Solid	DI Leach	
880-12600-15	H8	Soluble	Solid	DI Leach	
880-12600-16	H8	Soluble	Solid	DI Leach	
880-12600-17	H9	Soluble	Solid	DI Leach	
880-12600-18	H9	Soluble	Solid	DI Leach	
880-12600-19	H10	Soluble	Solid	DI Leach	
880-12600-20	H10	Soluble	Solid	DI Leach	
MB 880-21923/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21923/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21923/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12600-1 MS	H1	Soluble	Solid	DI Leach	
880-12600-1 MSD	H1	Soluble	Solid	DI Leach	
880-12600-11 MS	H6	Soluble	Solid	DI Leach	
880-12600-11 MSD	H6	Soluble	Solid	DI Leach	

QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

HPLC/IC

Analysis Batch: 22049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12600-1	H1	Soluble	Solid	300.0	21923
880-12600-2	H1	Soluble	Solid	300.0	21923
880-12600-3	H2	Soluble	Solid	300.0	21923
880-12600-4	H2	Soluble	Solid	300.0	21923
880-12600-5	H3	Soluble	Solid	300.0	21923
880-12600-6	H3	Soluble	Solid	300.0	21923
880-12600-7	H4	Soluble	Solid	300.0	21923
880-12600-8	H4	Soluble	Solid	300.0	21923
880-12600-9	H5	Soluble	Solid	300.0	21923
880-12600-10	H5	Soluble	Solid	300.0	21923
880-12600-11	H6	Soluble	Solid	300.0	21923
880-12600-12	H6	Soluble	Solid	300.0	21923
880-12600-13	H7	Soluble	Solid	300.0	21923
880-12600-14	H7	Soluble	Solid	300.0	21923
880-12600-15	H8	Soluble	Solid	300.0	21923
880-12600-16	H8	Soluble	Solid	300.0	21923
880-12600-17	H9	Soluble	Solid	300.0	21923
880-12600-18	H9	Soluble	Solid	300.0	21923
880-12600-19	H10	Soluble	Solid	300.0	21923
880-12600-20	H10	Soluble	Solid	300.0	21923
MB 880-21923/1-A	Method Blank	Soluble	Solid	300.0	21923
LCS 880-21923/2-A	Lab Control Sample	Soluble	Solid	300.0	21923
LCSD 880-21923/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21923
880-12600-1 MS	H1	Soluble	Solid	300.0	21923
880-12600-1 MSD	H1	Soluble	Solid	300.0	21923
880-12600-11 MS	H6	Soluble	Solid	300.0	21923
880-12600-11 MSD	H6	Soluble	Solid	300.0	21923

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H1

Lab Sample ID: 880-12600-1

Date Collected: 03/18/22 09:05
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 12:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 12:18	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 20:25	CH	XEN MID

Client Sample ID: H1

Lab Sample ID: 880-12600-2

Date Collected: 03/18/22 09:10
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 12:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 13:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 20:52	CH	XEN MID

Client Sample ID: H2

Lab Sample ID: 880-12600-3

Date Collected: 03/18/22 09:15
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 13:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 13:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 21:01	CH	XEN MID

Client Sample ID: H2

Lab Sample ID: 880-12600-4

Date Collected: 03/18/22 09:20
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 13:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H2

Lab Sample ID: 880-12600-4
Matrix: Solid
Date Collected: 03/18/22 09:20
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 14:05	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		5			22049	03/28/22 21:10	CH	XEN MID

Client Sample ID: H3

Lab Sample ID: 880-12600-5
Matrix: Solid
Date Collected: 03/18/22 09:25
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 13:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 14:26	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 21:19	CH	XEN MID

Client Sample ID: H3

Lab Sample ID: 880-12600-6
Matrix: Solid
Date Collected: 03/18/22 09:30
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 14:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 14:47	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 21:45	CH	XEN MID

Client Sample ID: H4

Lab Sample ID: 880-12600-7
Matrix: Solid
Date Collected: 03/18/22 09:35
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 14:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 15:08	AJ	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H4
Date Collected: 03/18/22 09:35
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12600-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 21:54	CH	XEN MID

Client Sample ID: H4
Date Collected: 03/18/22 09:40
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12600-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 14:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 15:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 22:03	CH	XEN MID

Client Sample ID: H5
Date Collected: 03/18/22 09:45
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12600-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 15:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 15:50	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 22:12	CH	XEN MID

Client Sample ID: H5
Date Collected: 03/18/22 09:50
Date Received: 03/18/22 15:12

Lab Sample ID: 880-12600-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	21854	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 15:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 16:12	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 22:21	CH	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H6

Lab Sample ID: 880-12600-11

Date Collected: 03/18/22 10:05
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 13:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 16:54	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 22:30	CH	XEN MID

Client Sample ID: H6

Lab Sample ID: 880-12600-12

Date Collected: 03/18/22 10:10
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 13:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 17:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 22:56	CH	XEN MID

Client Sample ID: H7

Lab Sample ID: 880-12600-13

Date Collected: 03/18/22 10:15
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 13:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 17:36	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 23:05	CH	XEN MID

Client Sample ID: H7

Lab Sample ID: 880-12600-14

Date Collected: 03/18/22 10:20
Matrix: Solid
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 14:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H7

Lab Sample ID: 880-12600-14

Date Collected: 03/18/22 10:20

Matrix: Solid

Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 17:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 23:32	CH	XEN MID

Client Sample ID: H8

Lab Sample ID: 880-12600-15

Date Collected: 03/18/22 10:25

Matrix: Solid

Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 14:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 18:17	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 23:41	CH	XEN MID

Client Sample ID: H8

Lab Sample ID: 880-12600-16

Date Collected: 03/18/22 10:30

Matrix: Solid

Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 15:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 18:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 23:49	CH	XEN MID

Client Sample ID: H9

Lab Sample ID: 880-12600-17

Date Collected: 03/18/22 10:35

Matrix: Solid

Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 18:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 18:59	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Client Sample ID: H9

Lab Sample ID: 880-12600-17
Matrix: Solid
Date Collected: 03/18/22 10:35
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/28/22 23:58	CH	XEN MID

Client Sample ID: H9

Lab Sample ID: 880-12600-18
Matrix: Solid
Date Collected: 03/18/22 10:40
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 18:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 19:20	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/29/22 00:07	CH	XEN MID

Client Sample ID: H10

Lab Sample ID: 880-12600-19
Matrix: Solid
Date Collected: 03/18/22 10:45
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 18:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 19:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/29/22 00:16	CH	XEN MID

Client Sample ID: H10

Lab Sample ID: 880-12600-20
Matrix: Solid
Date Collected: 03/18/22 10:50
Date Received: 03/18/22 15:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	21852	03/23/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22187	03/23/22 19:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22223	03/23/22 14:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22121	03/22/22 09:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21917	03/18/22 15:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21985	03/21/22 20:01	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21923	03/18/22 16:41	SC	XEN MID
Soluble	Analysis	300.0		1			22049	03/29/22 00:25	CH	XEN MID

Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Cabot Q SWD

Job ID: 880-12600-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12600-1	H1	Solid	03/18/22 09:05	03/18/22 15:12	0-6"
880-12600-2	H1	Solid	03/18/22 09:10	03/18/22 15:12	1'
880-12600-3	H2	Solid	03/18/22 09:15	03/18/22 15:12	0-6"
880-12600-4	H2	Solid	03/18/22 09:20	03/18/22 15:12	1'
880-12600-5	H3	Solid	03/18/22 09:25	03/18/22 15:12	0-6"
880-12600-6	H3	Solid	03/18/22 09:30	03/18/22 15:12	1'
880-12600-7	H4	Solid	03/18/22 09:35	03/18/22 15:12	0-6"
880-12600-8	H4	Solid	03/18/22 09:40	03/18/22 15:12	1'
880-12600-9	H5	Solid	03/18/22 09:45	03/18/22 15:12	0-6"
880-12600-10	H5	Solid	03/18/22 09:50	03/18/22 15:12	1'
880-12600-11	H6	Solid	03/18/22 10:05	03/18/22 15:12	0-6"
880-12600-12	H6	Solid	03/18/22 10:10	03/18/22 15:12	1'
880-12600-13	H7	Solid	03/18/22 10:15	03/18/22 15:12	0-6"
880-12600-14	H7	Solid	03/18/22 10:20	03/18/22 15:12	1'
880-12600-15	H8	Solid	03/18/22 10:25	03/18/22 15:12	0-6"
880-12600-16	H8	Solid	03/18/22 10:30	03/18/22 15:12	1'
880-12600-17	H9	Solid	03/18/22 10:35	03/18/22 15:12	0-6"
880-12600-18	H9	Solid	03/18/22 10:40	03/18/22 15:12	1'
880-12600-19	H10	Solid	03/18/22 10:45	03/18/22 15:12	0-6"
880-12600-20	H10	Solid	03/18/22 10:50	03/18/22 15:12	1'

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Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 12600

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Project Manager	Grant Huckabay	Bill to (if different)	
Company Name	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address	
City, State ZIP	Midland TX 79707	City, State ZIP	
Phone	432-687-1777	Email	granth@forl com / addisong@forl com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT Q SWD	Turn Around	☐ Routine ☒ Rush
Project Number		Due Date	3/23/22
Project Location		TAT starts the day received by the lab if received by 4 30pm	
Sampler's Name	Addison Guelker		
PO #:			

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	(Yes) No
Samples Received Intact.	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-.1
Sample Custody Seals	Yes No (N/A)	Temperature Reading	5.2
Total Containers		Corrected Temperature	5.1

Preservative Codes

None NO | DI Water H_2O
Cool Cool | MeOH Me
HCL HC | HNO_3 HN
H_2S0_4 H_2 | NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CL	EC	TPH 8015M	BTEX 8021B	Sample Comments
H1	S	3/18/2022	9:05	0 6"	G	1		X		X	X	
H1	S	3/18/22	9 10	1'	G	1		X		X	X	
H2	S	"	9 15	0-6"	"	"		"		"	"	
H2	S	"	9 20	1'	"	"		"		"	"	
H3	S	"	9 25	0-6"	"	"		"		"	"	
H3	S	"	9:30	1'	"	"		"		"	"	
H4	S	"	9:35	0-6"	"	"		"		"	"	
H4	S	"	9.40	1'	"	"		"		"	"	
H5	S	"	9.45	0-6"	"	"		"		"	"	
H5	S	↓	9.50	1'	↓	↓		↓		↓	↓	

880-12600 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed These terms will be enforced unless previously negotiated

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		3/18/22 15:12	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

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Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 126000

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Project Manager	Grant Huckabay	Bill to (if different)	
Company Name.	Fasken Oil and Ranch	Company Name	
Address	6101 Holiday Hill Road	Address	
City, State ZIP	Midland TX 79707	City, State ZIP	
Phone	432-687-1777	Email	granth@forl.com / addisong@forl.com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name	CABOT Q SWD	Turn Around	☐ Routine ☒ Rush
Project Number		Due Date	3/23/22
Project Location		TAT starts the day received by the lab if received by 4 30pm	
Sampler's Name	Addison Guelker		
PO #:			

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1
Sample Custody Seals	Yes No (N/A)	Temperature Reading	5.2
Total Containers.		Corrected Temperature	5.1

Preservative Codes

None NO; DI Water H_2O; Cool Cool; MeOH Me; HCL HC; HNO_3 HN; H_2SO_4 H_2; NaOH Na; H_3PO_4 HP; $NaHSO_4$ NABIS; $Na_2S_2O_3$ $NaSO_3$; Zn Acetate+NaOH Zn; NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CL	EC	TPH 8015M	BTEX 8021B	Sample Comments
H6	S	3/18/2022	10:05	0-6"	G	1		X		X	X	
H6	S	3/18/22	10 10	1'	G	1		X		X	X	
H7	S	3/18/22	10-15	0-6"	G	1		X		X	X	
H7	S	3/18/22	10:20	1'	G	1		X		X	X	
H8	S		10 25	0-6"								
H8	S		10:30	1'								
H9	S		10:35	0-6"								
H9	S		10 40	1'								
H10	S		10 45	0 6"								
H10	S		10 50	1'								

Total 200.7 / 6010 200 8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		3/18/22	2		
3		15:12	4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Fasken Oil and Ranch

Job Number: 880-12600-1

Login Number: 12600
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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").	N/A	

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 108805

CONDITIONS

Operator: FASKEN OIL & RANCH LTD 6101 Holiday Hill Rd Midland, TX 79707	OGRID: 151416
	Action Number: 108805
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Please excavate down to rock and please take photos of the rock bottom. Please document locations of photos on a site plan of excavation and rock bottoms. Please ensure your sidewall samples meet the most stringent criteria (600 mg/kg chloride, 100 mg/kg TPH). Variance: Composite confirmation samples will be collected from areas representing no more than three hundred (300) square feet.	8/22/2022