



CLOSURE REPORT

Property:

Red Hills Unit 3
Incident ID #: 1RP-4857
Unit K, Sec. 5, T26S, R33E Lea County, New Mexico
December 10, 2021
Apex Project No. CIM002-0314045-21000101

Prepared for:

Cimarex Energy Co.
600 North Marienfeld Street #600
Midland, TX 79701
Attn: Ms. Laci Luig

Prepared by:

A handwritten signature in blue ink that reads 'John Faught'.

John Faught G.I.T.
Scientist II / Geologist

A handwritten signature in blue ink that reads 'Hank W. McConnell'.

Hank W. McConnell, P.G.
Branch Manager / Senior Geologist

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CLOSURE REPORT

Red Hills Unit 3
Unit K, Sec. 5, T26S, R33E
Lea County, New Mexico

Apex Project No. CIM002-0314045-21000101

1.0 INTRODUCTION

1.1 Site Description & Background

The Red Hills Unit 3 Release site, New Mexico Oil Conservation Division (NMOCD), remediation case number 1RP-4857, referred to hereinafter as the "Site", is located within Unit K, Section 5, Township 26 South, Range 33 East, in rural Lea County, New Mexico (32.0707741, -103.5957184). The Site is located on Private land and is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities.

On October 29, 2017 an illegal dumping of fluid was discovered off the northwest side of this location. It flowed approximately 350 ft downslope, then turned southwest and flowed an additional 120 ft into a wet weather creek identified on a USGS topographic map. The fluid was not from a Cimarex facility, and the party responsible for the released has not been identified.

Initial delineation and excavation activities were conducted by Diversified Field Services, Inc (Diversified). Fluid samples collected by Diversified were submitted to Cardinal Laboratories October 31, 2017 for waste characterization.

Apex visited the Site on December of 2020 to collect delineation samples in the original spill area. On September 8, 2021, Apex and H&R Enterprises conducted excavation activities and coded confirmation samples after the impacted soil was removed.

A Topographic Map depicting the location of the Site is included as **Figure 1**, and a Site Overview Map is included as **Figure 2**.

1.2 Project Objective

The primary objective of the closure activities was to reduce constituent of concern (COC) concentrations in the on-Site soils to below the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) closure criteria using the New Mexico Administrative Code (NMAC) 19.15.29 *Releases* as guidance.

2.0 SITE ASSESSMENT AND CHARACTERIZATION

The Site is subject to regulatory oversight by the NMOCD. To address activities related to exempt oil and gas releases, the NMOCD references NMAC 19.15.29 *Releases* (revised 8/14/2018) which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action. In accordance with the NMOCD NMAC 19.15.29 *Releases*, Apex utilized the general site characteristics and

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information available from the New Mexico Office of the State Engineer (OSE) and the NMOCD Imaging database to determine the appropriate closure criteria for the Site. The following are key details associated with the release.

- The release occurred on the western edge of the well pad and traveled down-gradient to a wet weather creek. **Figure 2** is an aerial photo overview of the site that depicts the locations of surface features, infrastructure, access roads, and the bounds of the original excavation (2017). **Figure 3** is a detailed map of the original release (2017), sample locations and buried flow lines and recently excavated areas that were exposed during the excavation activities.
- A significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC exists within a half mile of the release boundaries and the Site is therefore located within 300 feet of a continuously flowing watercourse or significant watercourse.
- The Site is not located within 300 feet from a permanent residence, school, hospital, institution, or church.
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet from an occupied permanent residence, school, hospital, institution, or church.
- No springs or private, domestic freshwater wells used by less than five (5) households for domestic or stock watering purposes were identified within 500 feet of the Site.
- No freshwater wells or springs were identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
 - The Site is not located within 300 feet of a wetland.
 - Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
 - The Site is not located within an unstable area.
 - The Site is not located within a 100-year floodplain.

Based on the site characterization, closure criteria for the Site are the parameters listed in 19.15.29 NMAC for releases with a minimum depth to groundwater less than or equal to 50 feet below ground surface:

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Adapted from 19.15.29 NMAC Table 1

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

Diversified and Cimarex personnel began initial excavation activities to remediate potential petroleum hydrocarbon impacted soils resulting from the release in October of 2017. Data from initial excavation activities could not be located at the time of this report. Further corrective action activities were conducted by H&R Enterprises and Apex personnel on September 8, 2021.

Apex field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG[®] hydrocarbon analyzer system to delineate impacts and guide excavation extents.

The final excavation consisted of the initial area removed by Diversified Field Services, Inc. and seven (7) additional excavations in areas where COCs were elevated. The additional excavations were completed in 2020. The maximum depth of the excavation measured approximately 4 feet below ground surface (bgs).

The materials encountered during the completion of corrective action activities consisted of caliche and silty sand. A highly cemented red sandstone layer was encountered approximately two feet below ground surface at the west end of the excavation.

A total of approximately 284 tons of affected soils were transported to Lea Land, LLC near Carlsbad, New Mexico for disposal/remediation. Bills of lading are provided in **Appendix B**.

Soil sample locations are presented in **Figure 3**. Photographic documentation of the field activities is included in **Appendix C**.

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3.2 Soil Sampling Program

On December 18, 2020, Apex personnel mobilized to the Site and collected forty-three representative composite soil samples, not exceeding two hundred (200) square feet in area, from the base and sidewalls of the excavation for delineation purposes. After review of the data collected from the December 18 sampling event, further delineation efforts were organized and took place on September 8, 2021 during which confirmation samples were collected in areas with previously elevated COCs.

The samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels and stored on ice in a cooler. The samples were relinquished to Permian Basin Environmental Laboratory of Midland, Texas under proper chain-of-custody procedures.

3.3 Laboratory Analytical Methods

The five-point composite soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method 8021/8260, total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method 8015, and chlorides using EPA Method 300.0. Laboratory results are summarized in **Table 1**. The executed chain-of-custody form and laboratory data sheets are provided in **Appendix E**.

4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the NMOCD. To address activities related to exempt oil and gas releases, the NMOCD references NMAC 19.15.29 *Releases* (revised 8/14/2018), which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Soil Samples

Apex compared the BTEX, TPH, and chloride concentrations or laboratory practical quantitation limits (PQLs) associated with the composite soil samples to the NMOCD closure criteria.

- Nine samples out of forty-three collected on December 18, 2020 contained an exceedance of TPH, exhibiting concentrations of 208 mg/kg (SP1.1BH), 215 mg/kg (SP1.6BH), 306 mg/kg (SP3.2BH), 386 mg/kg (SP3.3SW), 1,550 mg/kg (SP4.6BH), 483 mg/kg (SP5.1SW), 122 mg/kg (SP5.3SW), 146 mg/kg (SP5.5BH), and 784 mg/kg (SP5.8BH).
- The nine (9) sampling locations with elevated COCs were excavated to depths ranging from two (2) to four (4) feet bgs and composite confirmation samples were collected. Analytical results from the samples collected on September 8, 2021 indicated all Benzene, BTEX and TPH concentrations were below the regulatory limits.
- One confirmation sample (SP5.1SW) collected on September 8, 2021 indicated an elevated chloride concentration of 792 mg/L. After further excavation at this location, J. Hawley with H-R-Enterprises collected a subsequent confirmation sample in which concentrations of BTEX, TPH and Chlorides were all below NMOCD closure criteria.



- The laboratory analyses of the composite soil samples collected from soils remaining in place do not indicate benzene concentrations above the laboratory PQLs, which are below the NMOCD closure criteria of 10 mg/kg.
- The laboratory analyses of the composite soil samples collected from soils remaining in place and backfill soils do not contain total BTEX concentrations above the laboratory PQLs, which are below the NMOCD closure criteria of 50 mg/kg.
- The laboratory analyses of the composite soil samples collected from soils remaining in place and the backfill soils do not indicate combined TPH GRO/DRO/MRO concentrations above the laboratory PQLs, which are below the applicable New Mexico EMNRD OCD closure criteria of 100 mg/kg
- The laboratory analyses of the composite soil samples collected from soils remaining in place do not indicate chloride concentrations above the laboratory PQLs which are below the applicable New Mexico OCD closure criteria of 600 mg/kg,

Laboratory analytical results are summarized in **Table 1**, sample locations are presented in **Figure 3**.

5.0 RESTORATION, RECLAMATION AND RE-VEGETATION

Restoration of the site consisted of contouring with existing material at the site after impacted material was removed. Reclamation was be in accordance with 19.15.20 NMAC or Bureau of Land Management requirements, if they provide equal or better protection of fresh water, human health, and the environment.

6.0 FINDINGS AND CONCLUSIONS

The Red Hills Unit 3 is in Unit K, Section 5, Township 26 South, Range 33 East, in rural Lea County, New Mexico. The Site is located on Private land and is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities.

On October 29, 2017 an illegal dumping of fluid was discovered off the northwest side of this location. It flowed approximately 350 ft down gradient, then turned southwest an additional 120 ft into a wet weather creek identified on a USGS topographic map. The fluid was not from a Cimarex facility, and the party who released it is not able to be identified.

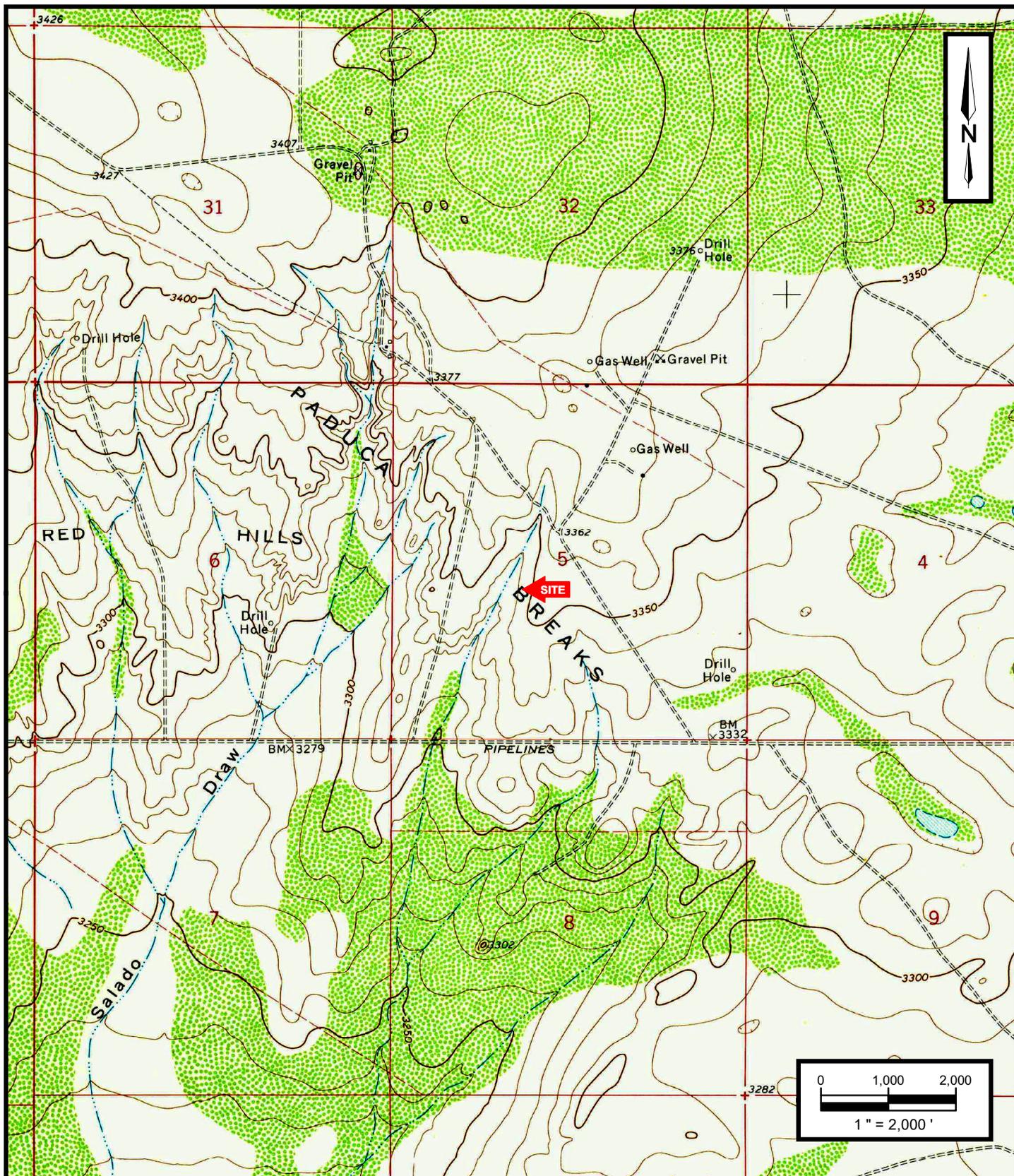
- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable NMOCD closure criteria using the NMOCD's NMAC 19.15.29 Releases as guidance.
- The materials encountered during the completion of corrective action activities consisted of caliche and silty sand. A highly cemented red sandstone layer was encountered approximately two feet below ground surface at the west end of the excavation.
- The final excavation consisted of four areas of concern measuring a total of approximately 1600 square feet. The maximum depth of the excavation measured approximately 4 feet bgs.
- Prior to backfilling, nine (9) composite soil samples were collected from the final excavation for laboratory analysis. Based on soil analytical results, soils remaining in place do not exhibit COC concentrations above the NMOCD closure criteria.

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- A total of approximately 284 tons of affected soils were transported to Lea Land, LLC near Carlsbad, New Mexico for disposal/remediation. Waste manifest forms are provided in **Appendix B**. The excavation was backfilled with soils existing at the Site and contoured to surrounding grade.

Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.



Closure Report
 Cimarex Energy
 Red Hills Unit 3
 Lea County, NM
 35.7894224 N, 96.7216945 W

Project No. CIM002-0314045-21000101



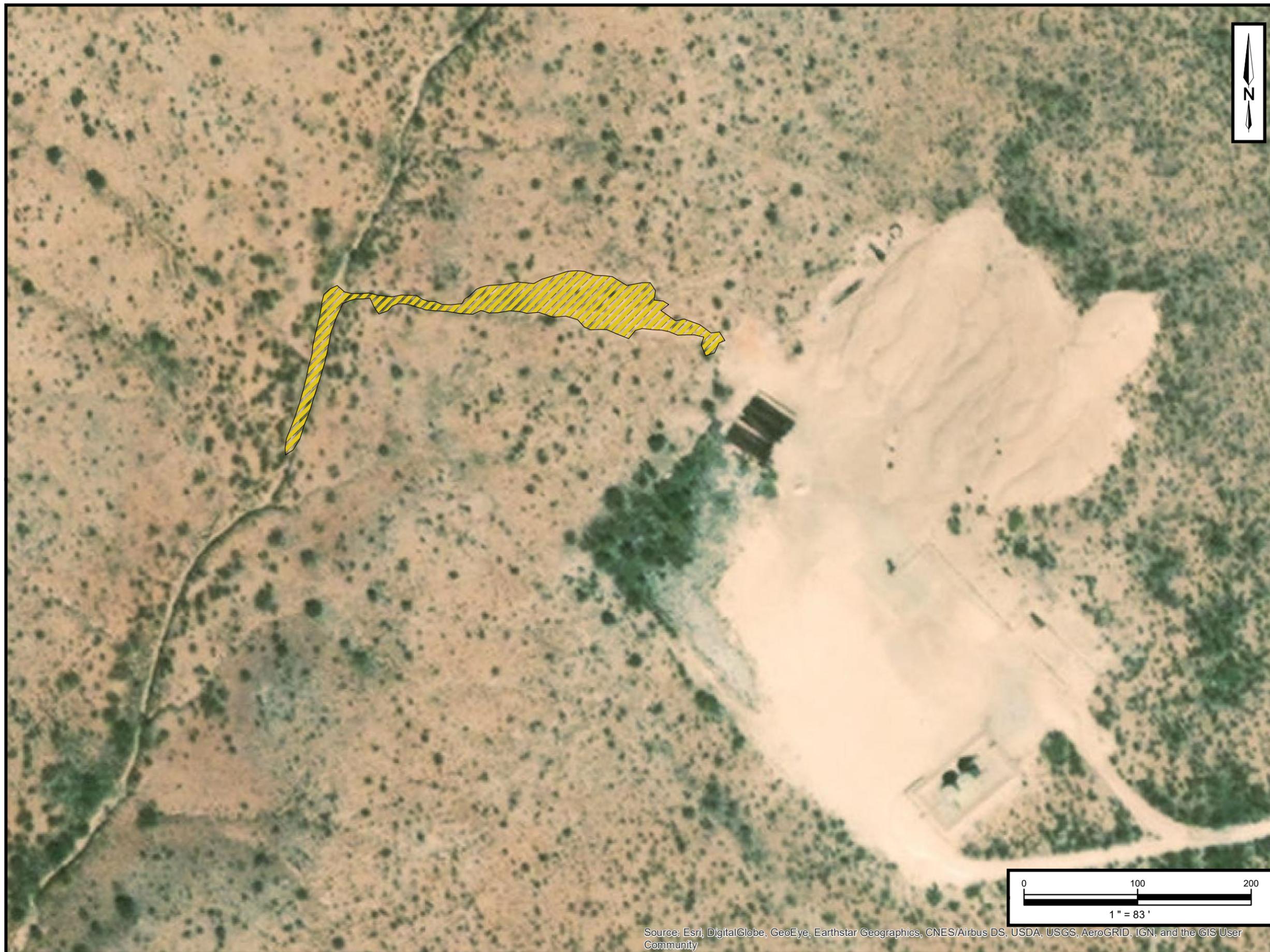
Apex Companies, LLC

505 N Big Spring St., Suite 301A
 Midland, Texas 79701
 Phone: (432) 695-6016
www.apexcos.com

FIGURE 1

Topographic Map

USGS 7.5-minute
 Paduca Breaks East
 New Mexico 1973



LEGEND:
 Release Area (as defined by Diversified)



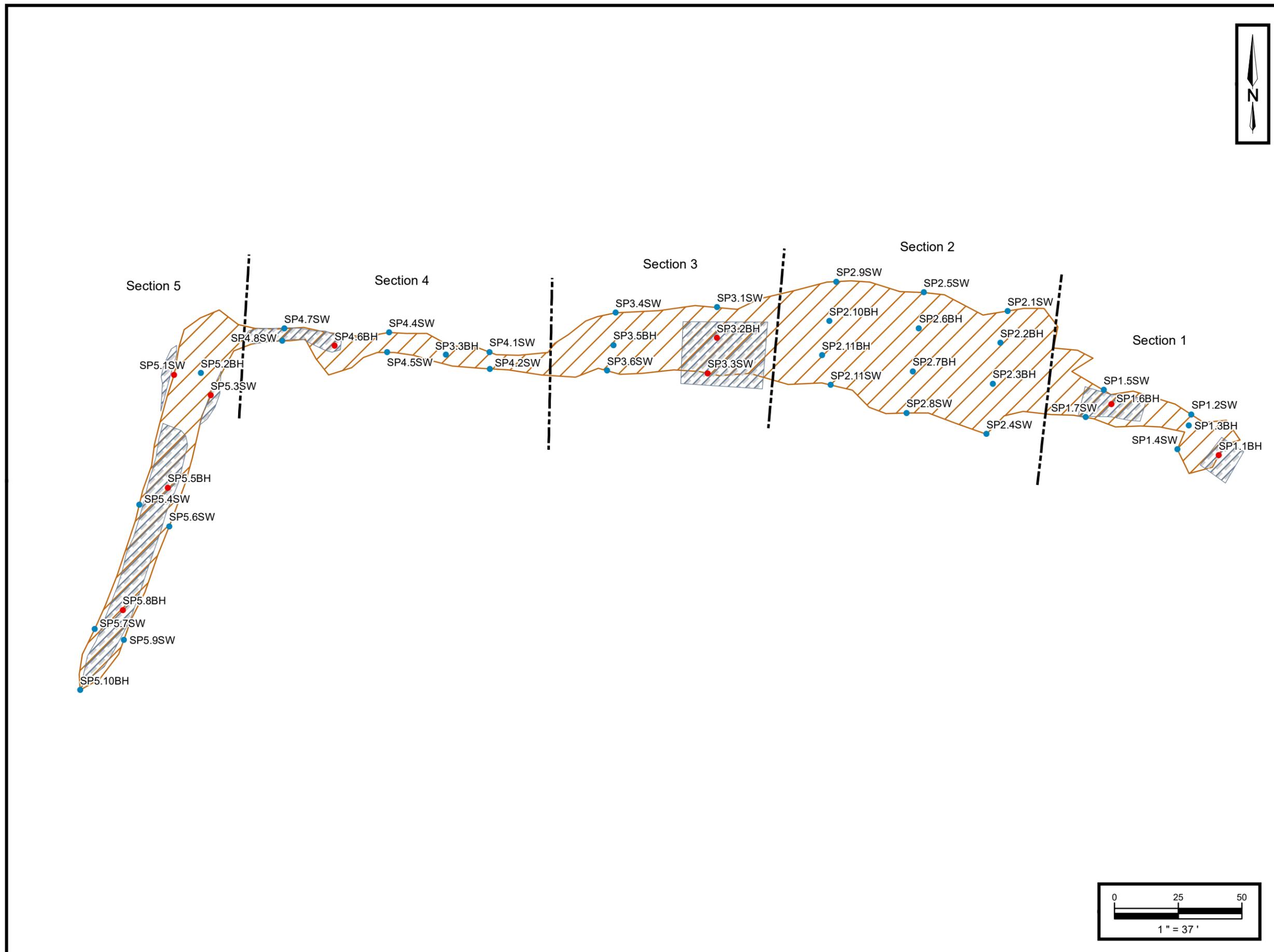
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FIGURE 2
Site Location
 Unit K, Section 5, T26S, R33E
 API: 30-025028144

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



LEGEND:

- Below
- Exceedance
- Area Breaks
- ▨ Excavation
- ▨ Release Area (as defined by Diversified)



Apex Companies, LLC
 505 N Big Spring St., Suite 301A
 Midland, Texas 79701
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Red Hills Unit 3
 Lea County, NM
 35.7894224 N, 96.7216945 W

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FIGURE 3

Site Overview

Unit K, Section 5, T26S, R33E
 API: 30-025028144

TABLE 1
Red Hills Unit 3
Lea County, NM
SOIL CONFIRMATION SAMPLE ANALYTICAL



Sample Number	Date	Sample Depth (feet)	Benzene (mg/kg)	BTEX (mg/kg)	TPH GRO C ₆ -C ₁₂ (mg/kg)	TPH DRO C ₁₂ -C ₂₈ (mg/kg)	TPH MRO C ₂₈ -C ₃₅ (mg/kg)	Total TPH (mg/kg)	Chlorides (mg/kg)
19.15.29.12 NMAC Remediation Limits			10	50	100		100	600	
SP1.1BH	12/18/2020	3"	<0.00100	<0.00200	<25.0	208	<25.0	208	599.0
SP1.1BH (2)	9/8/2021	4'	<0.00106	<0.00213	<26.6	<26.6	<26.6	<26.6	180.0
SP1.2SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	12.90
SP1.3BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	59.3	<25.3	59.3	31.9
SP1.4SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	8.47
SP1.5SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	3.23
SP1.6BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	215	<25.3	215	12.8
SP1.6BH (2)	9/8/2021	4'	<0.00106	<0.00213	<26.6	<26.6	<26.6	<26.6	164.0
SP1.7SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	17.8
SP2.1SW	12/18/2020	3"	<0.00100	<0.00200	<25.0	35.1	<25.1	35.1	5.93
SP2.2BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	7.88
SP2.3BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	25.6	<25.3	25.6	16.5
SP2.4SW	12/18/2020	3"	<0.00102	<0.00204	<25.5	<25.5	<25.5	<25.5	15.3
SP2.5SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	7.39
SP2.6BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	3.33
SP2.7BH	12/18/2020	3"	<0.00100	<0.00200	<25.0	30.4	<25.0	30.4	5.11
SP2.8SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	46.9	<25.3	46.9	8.36
SP2.9SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	45.4	<25.3	45.4	9.14
SP2.10BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	3.24
SP2.11BH	12/18/2020	3"	<0.00100	<0.00200	<25.0	<25.0	<25.0	<25.0	9.29
SP2.12SW	12/18/2020	3"	<0.00100	<0.00200	<25.0	32.6	<25.0	32.6	3.39
SP3.1SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	23.1
SP3.2BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	306	<25.3	306	10.3
SP3.2BH (2)	9/8/2021	4'	<0.00105	<0.00211	<26.3	<26.3	<26.3	<26.3	70.3
SP3.3SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	386	<25.3	386	3.5
SP3.3SW (2)	9/8/2021	0-4'	<0.00104	<0.00208	<26.0	<26.0	<26.0	<26.0	10.6
SP3.4SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	25.4	<25.3	25.4	12.2
SP3.5BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	49.8	<25.3	49.8	8.35
SP3.6SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	6.01
SP4.1SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	17.2
SP4.2SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	35.3	<25.3	35.3	8.47
SP4.3BH	12/18/2020	3"	<0.00100	<0.00200	<25.0	93.5	<25.0	93.5	20.8

TABLE 1
Red Hills Unit 3
Lea County, NM
SOIL CONFIRMATION SAMPLE ANALYTICAL



Sample Number	Date	Sample Depth (feet)	Benzene (mg/kg)	BTEX (mg/kg)	TPH GRO C ₆ -C ₁₂ (mg/kg)	TPH DRO C ₁₂ -C ₂₈ (mg/kg)	TPH MRO C ₂₈ -C ₃₅ (mg/kg)	Total TPH (mg/kg)	Chlorides (mg/kg)
19.15.29.12 NMAC Remediation Limits			10	50	100		100	600	
SP4.4SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	12.6
SP4.5SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	8.91
SP4.6BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	1,550	<25.3	1,550	19.3
SP4.6BH (2)	9/8/2021	2'	<0.00105	<0.00211	<26.3	<26.3	<26.3	<26.3	17.1
SP4.7SW	12/18/2020	3"	<0.00100	<0.00200	<25.0	<25.0	<25.0	<25.0	64.0
SP4.8SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	35.3	<25.3	35.3	18.4
SP5.1SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	483	<25.3	483	4.74
SP5.1SW (2)	9/8/2021	0-4'	<0.00106	<0.00213	<26.6	<26.6	<26.6	<26.6	792
SP5.1SW (3)	9/13/2021	0-4'	<0.050	<0.300	<10	<10	<10	<10	16
SP5.2BH	12/18/2020	3"	<0.00102	<0.00204	<25.5	93.8	<25.5	93.8	4.92
SP5.3SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	122	<25.3	122	98.8
SP5.3SW (2)	9/8/2021	0-4'	<0.00108	<0.00215	<26.9	<26.9	<26.9	<26.9	261.0
SP5.4SW	12/18/2020	3"	<0.00100	<0.00200	<25.0	<25.0	<25.0	<25.0	12.2
SP5.5BH	12/18/2020	3"	<0.00102	<0.00204	<25.5	146	<25.5	146	1.65
SP5.5BH (2)	9/8/2021	2'	<0.00108	<0.00215	<26.9	<26.9	<26.9	<26.9	69.80
SP5.6SW	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	227.0
SP5.7SW	12/18/2020	3"	<0.00100	<0.00200	<25.0	<25.0	<25.0	<25.0	6.28
SP5.8BH	12/18/2020	3"	<0.00104	<0.00208	<26.0	784	<26.0	784	4.74
SP5.8BH (2)	9/8/2021	2'	<0.00108	<0.00215	<26.9	<26.9	<26.9	<26.9	<0.538
SP5.9SW	12/18/2020	3"	<0.00102	<0.00204	<25.5	<25.5	<25.5	<25.5	14.0
SP5.10BH	12/18/2020	3"	<0.00101	<0.00202	<25.3	<25.3	<25.3	<25.3	3.77

Bold and highlighted analytical result indicates sample above applicable Protective Concentration Level.



APPENDIX A

C-141 and NMOCD Correspondence

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 Mexico
Energy Minerals and Natural
Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nOY1730532363
District RP	1RP-4857
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Cimarex Energy Co. of Colorado	OGRID: 162683
Contact Name: Laci Luig	Contact Telephone: (432) 571-7800
Contact email: lluig@cimarex.com	Incident # (assigned by OCD) nOY1730532363
Contact mailing address: 600 N Marienfeld Street, Ste. 600 Midland, TX 79701	

Location of Release Source

Latitude 32.0707741 _____ Longitude -103.5957184 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Red Hills Unit 3	Site Type: Pasture
Date Release Discovered: 10/29/2017	API# (if applicable)

Unit Letter	Section	Township	Range	County
K	5	26S	33E	Lea

Surface Owner: State Federal Tribal Private (Name: BP Ranch Properties _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input checked="" type="checkbox"/> Other (describe)	Volume/Weight Released (provide units) 130 bbls BS&W	Volume/Weight Recovered (provide units) 0 bbls BS&W

Cause of Release: Illegal Dumping

Pumper was doing inspection rounds at location and noticed tire tracks leading to NW side of location. Upon further inspection realized a transport truck had illegally dumped what appeared to be BS & W off the side of location. On NW side of location, release ran approx 350 ft, then turned SW and ran another 120 ft. Diversified was on location and collected samples to identify exactly what was dumped. This area is very rocky. Plan of work will be developed and submitted.

State of New Mexico
Oil Conservation Division

Incident ID	nOY1730532363
District RP	1RP-4857
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Total released greater than 25 barrels
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By: Christine Alderman To: Olivia Yu, Shelly Tucker By: Email	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
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: Christine Alderman _____ Title: ESH Supervisor _____ Signature: _____ Date: 10/30/2017 _____ email: calderman@cimarex.com _____ Telephone: 432-853-7059 _____
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	nOY1730532363
District RP	1RP-4857
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?	50 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 1/2-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.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nOY1730532363
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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: Laci Luig _____ Title: ESH Specialist _____

Signature:  _____ Date: 12/10/2021 _____

email: llug@cimarex.com _____ Telephone: (432) 208-3035 _____

OCD Only

Received by: _____ Date: _____

Incident ID	nOY1730532363
District RP	1RP-4857
Facility ID	
Application ID	

Closure

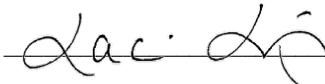
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Laci Luig Title: ESH Specialist

Signature:  Date: 12/10/2021

email: lluig@cimarex.com Telephone: (432) 208-3035

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 09/16/2022

Printed Name: Brittany Hall Title: Environmental Specialist

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 Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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 Cimarex Energy	Contact Christine Alderman
Address 600 N Marienfeld Ste 600 Midland TX	Telephone No. 432-853-7059
Facility Name Red Hills Unit #3	Facility Type production

Surface Owner BLM	Mineral Owner Federal	API No. 30-025-28144
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	05	26S	33E	1980	S	2180	W	Lea

Latitude 32.0707741 Longitude -103.5957184

NATURE OF RELEASE

Type of Release tank bottom (BS&W, pending lab results)	Volume of Release 130 bbls	Volume Recovered 0 bbls
Source of Release Illegal dumping	Date and Hour of Occurrence 10/29/2017	Date and Hour of Discovery 10/29/2017
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shelly Tucker/Olivia Yu	
By Whom? Christine Alderman	Date and Hour 10/30/2017	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

RECEIVED
By Olivia Yu at 8:54 am, Nov 01, 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.
Pumper was doing inspection rounds at location and noticed tire tracks leading to NW side of location. Upon further inspection realized a transport truck had illegally dumped what appeared to be BS & W off the side of location.

Describe Area Affected and Cleanup Action Taken.
See attached map. On NW side of location ran approximately 350' then turned SW and ran another 120'. Diversified was on location and collected samples to identify exactly what was dumped. This area is very rocky. A plan of work will be developed and submitted.

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: <i>Christine Alderman</i>	OIL CONSERVATION DIVISION	
Printed Name: Christine Alderman	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: ESH Supervisor	Approval Date: 11/1/2017	Expiration Date:
E-mail Address: calderman@cimarex.com	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
Date: 10/30/2017 Phone: 432-853-7059		

* Attach Additional Sheets If Necessary

1RP-4857

nOY1730532363

pOY1730532627

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/30/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP-4857 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 1 office in Hobbs on or before 12/1/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us



Red Hills Unit #3

PBNM430-RED HILLS UNIT 3 PBNM430-RED HILLS UNIT 3
PBNM430-RED HILLS UNIT 3

Incident Report

Incident Id: 9220
Incident Type: Spill
Severity Level: Level 3
District: Permian Basin-Hobbs East
Department: Production
Lease: RED HILLS UNIT 3
Reported By: Ray Lancaster
Reported By Phone Number: 5752636174
Incident Time: 10/29/2017 7:20PM
Completed By: John Osborne
Reviewed By: Christine Alderman
Operation: Pumper making normal route and found an illegal dump on the "Red Hills #3" location
Description: Ray Lancaster making normal route when he noticed truck tracks on the "Red Hills #3" upon further inspection he found that someone had dumped a load of liquid on the Northwest side of the location. The liquid ran down hill towards the Northwest 353' approximately 25' at the widest point. Then entered a ravine headed south, south west another 123' approximately 3 1/2' at it's widest point. Hard to estimate total fluid but I would say it was 130 BBLS.
Comments: I contacted "Diversified" and met (Michael Alves 575-631-3364) and met him on location at 2:30PM, We took Pictures, Soil samples, and Fluid samples. Michael made an emergency one call and got a backhoe headed to the site to get what little standing fluid there was picked and put on plastic.(The terrain is to rough for any other type of vehicle, Vacuum truck or Hydro Vac to reach the spill) They will continue to pick up what they can while they still have day light. Michael will submit the fluid to "Cardinal Laboratory" to get a fluid analysis.

11/12/2020 12:42:15 PM



CIMAREX ENERGY COMPANY
600 N. Marienfeld Street
Suite 600
Midland, TX 79701

Christine Alderman
ESH Supervisor – Permian

Ms. Olivia Yu
NMOCD District 1

Re: Red Hills Unit 3
1RP4857

Ms. Yu

On October 29, 2017 an illegal dumping of fluid was discovered off the northwest side of this location. It flowed approximately 350 ft downslope, then turned southwest a futher 120 ft into a wet weather creek identified on a USGS topographic map. The fluid was not from a Cimarex facility, and the party who released it is not able to be identified.

The area impacted is extremely rocky and was not able to be accessed by hydro-vac or backhoe. Cimarex has investigated remediation activities and proposes the following:

- Apply a diluted surfactant to the spill area (initial preparation for special chemical additives)
- Apply SoilWash (Integro Solutions LLC) which will clean and break down the hydrocarbons, as well as BioLift (Integro Solutions LLC) which will add nutrients and promote microbial growth. Both products will be applied per manufactures specifications.

I have attached the safety data sheets and information for both the Integro products. Cimarex is prepared to begin this process upon conformation from your office.

Please contact me if you have any questions.

Respectfully,

Christine Alderman



INTEGRO
SOLUTIONS

BioLift

Integro Solutions, LLC
Integro@IntegroSolutionsLLC.com ✉
512-638-3140 ☎

Description

BioLift is a concentrated nutrient package designed to promote and accelerate reproduction and growth of hydrocarbon degrading microbes. Use of BioLift accelerates the bioremediation process by either native or supplemented microbes. It can be used as a stand-alone product or in conjunction with other Integro products to create a complete bioremediation package.

Typical Performance

- Concentrated biostimulation nutrient package
- Decreases the time required for a hydrocarbon remediation
- Works with either augmented or native soil microbes
- Recommended for use in conjunction with other Integro bioremediation amendments or as a stand-alone product

Applications

- Specifically formulated for biostimulation of hydrocarbon degrading microbes in soil
- Can be used to stimulate bioremediation of a wide variety of hydrocarbons
- Can be used as a stand-alone product or as part of a larger bioremediation program

Safety: Always refer to the Safety Data Sheet for detailed information on shipping, handling, storage, and use.

Important: The information provided herein is believed to be accurate and reliable, but is presented without guarantee. Further, nothing contained herein shall be taken as an inducement to violate any patent rights.

Packaging, Handling & Storage

- Packaging: 55 gal drums or 5 gal pails. Prices vary upon packaging type.
- Non-Toxic and Biodegradable.

Physical Properties

Type:	Biostimulation Amendment
Appearance:	Light Yellow Liquid
Odor:	Mild
Specific Gravity:	1.25-1.27
pH:	6.0-8.0
See Also SDS	



Safety Data Sheet

Issue Date: 05-Dec-2017

Revision Date: 05-Dec-2017

Version 1

1. IDENTIFICATION

Product Identifier

Product Name BioLift

Other means of identification

SDS # INT-005

Recommended use of the chemical and restrictions on use

Recommended Use Nutrient package for soil microbes to encourage biodegradation.

Details of the supplier of the safety data sheet

Supplier Address

Integro Solutions, LLC
1329 Talley Loop
Buda, TX 78610
integro@integrosolutionsllc.com

Emergency Telephone Number

Company Phone Number 512-638-3140
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance According to product specification

Physical state Liquid

Odor According to product specification

Classification

Serious eye damage/eye irritation

Category 2

Signal Word

Warning

Hazard statements

Causes serious eye irritation



Precautionary Statements - Prevention

Wear eye/face protection
Wash face, hands and any exposed skin thoroughly after handling

INT-005 - BioLift

Revision Date: 05-Dec-2017

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Ammonium Nitrate	6484-52-2	10-30
Proprietary soil surfactant 1	Proprietary	1-5
Proprietary soil surfactant 2	Proprietary	<1
Non-Hazardous Ingredients	Mixture	50-70

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First Aid Measures**

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects

Symptoms	Causes serious eye irritation. May be harmful if swallowed.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions	Use personal protective equipment as required.
-----------------------------	--

INT-005 - BioLift

Revision Date: 05-Dec-2017

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear eye/face protection. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	According to product specification
Appearance	According to product specification	Odor Threshold	Not determined
Color	According to product specification		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not determined		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not determined		

INT-005 - BioLift

Revision Date: 05-Dec-2017

Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Flammability Limits in Air	
Upper Flammability Limits	Not determined
Lower Flammability Limit	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Relative Density	Not determined
Water Solubility	Not determined
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	Not determined
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes serious eye irritation.
Skin Contact	Avoid contact with skin.
Inhalation	Do not inhale.
Ingestion	Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Muriate of potash	= 2600 mg/kg (Rat)	-	-
Urea 57-13-6	= 8471 mg/kg (Rat)	-	-

INT-005 - BioLift

Revision Date: 05-Dec-2017

Ammonium Nitrate 6484-52-2	= 2217 mg/kg (Rat)	-	> 88.8 mg/L (Rat) 4 h
Ammonium Polyphosphate 68333-79-9	> 2000 mg/kg (Rat)	-	-
Proprietary soil surfactant 1	= 4920 µL/kg (Rat)	-	= 2 g/m ³ (Rat) 4 h

Information on physical, chemical and toxicological effects**Symptoms**

Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity**

Nitrate or nitrite ingested under conditions that result in endogenous nitrosation are considered IARC group 2A carcinogens.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ammonium Nitrate 6484-52-2		Group 2A		X

Legend*IARC (International Agency for Research on Cancer)**Group 2A - Probably Carcinogenic to Humans**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**X - Present***Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 2,589.00 mg/kg

ATEmix (inhalation-dust/mist) 42.67 mg/L

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Muriate of potash	2500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	750 - 1020: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1060: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	825: 48 h <i>Daphnia magna</i> mg/L EC50 83: 48 h <i>Daphnia magna</i> mg/L EC50 Static
Urea 57-13-6		16200 - 18300: 96 h <i>Poecilia reticulata</i> mg/L LC50	3910: 48 h <i>Daphnia magna</i> mg/L EC50 Static 10000: 24 h <i>Daphnia magna</i> Straus mg/L EC50
Ammonium Nitrate 6484-52-2		65 - 85: 48 h <i>Cyprinus carpio</i> mg/L LC50 semi-static	
Ammonium Polyphosphate 68333-79-9		685 - 1066: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 123: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 389 - 654: 96 h <i>Pimephales promelas</i> mg/L LC50 static 500: 96 h <i>Brachydanio rerio</i> mg/L LC50 static	

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

INT-005 - BioLift

Revision Date: 05-Dec-2017

Mobility

Chemical Name	Partition Coefficient
Urea 57-13-6	-1.59
Ammonium Nitrate 6484-52-2	-3.1

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Ammonium Nitrate 6484-52-2	Ignitable Reactive

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION**International Inventories**

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Muriate of potash	X	X	X	Present	X	Present	X	X
Urea	X	X	X	Present	X	Present	X	X
Ammonium Nitrate	X	X	X	Present	X	Present	X	X
Ammonium Polyphosphate	X	X	X	Present	X	Present	X	X
Proprietary soil surfactant 1	X	X		Present	X	Present	X	X
Proprietary soil surfactant 2	X	X			X		X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

INT-005 - BioLift

Revision Date: 05-Dec-2017

KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Ammonium Nitrate - 6484-52-2	6484-52-2	10-30	1.0

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium Nitrate 6484-52-2	X	X	X

16. OTHER INFORMATION**NFPA****Health Hazards**

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS**Health Hazards**

Not determined

Flammability

Not determined

Physical hazards

Not determined

Personal Protection

Not determined

Issue Date: 05-Dec-2017

Revision Date: 05-Dec-2017

Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



INTEGRO
SOLUTIONS

SoilWash

Integro Solutions, LLC
Integro@IntegroSolutionsLLC.com ✉
512-638-3140 ☎

Description

SoilWash is a concentrated aqueous bio-solvent for cleaning and breaking down hydrocarbons in the soil and on other surfaces. SoilWash can be used in a comprehensive hydrocarbon treatment system or as a stand-alone product. It is used to remove hydrocarbons adhering to surfaces such as tanks, concrete or soil particles and to help solubilize, break down and increase availability to microbes.

Typical Performance

- Environmentally friendly cleaner for use on hydrocarbons
- Increases solubility and breaks down hydrocarbons
- Removes hydrocarbons adhering to tanks, concrete, soil particles or other surfaces
- Increases the bioavailability of hydrocarbons thereby increasing the rate of bioremediation
- Recommended for use in conjunction with other bioremediation amendments or as a stand-alone product

Applications

- Specifically formulated for use as a hydrocarbon release agent in soils
- Can be used as a rig wash or to remove hydrocarbon stains from other surfaces
- Can be used as a stand-alone product or as part of a larger bioremediation program

Safety: Always refer to the Safety Data Sheet for detailed information on shipping, handling, storage, and use.

Important: The information provided herein is believed to be accurate and reliable, but is presented without guarantee. Further, nothing contained herein shall be taken as an inducement to violate any patent rights.

Packaging, Handling & Storage

- Packaging: 55 gal drums or 5 gal pails. Prices vary upon packaging type.
- Non-Toxic and Biodegradable.

Physical Properties

Type:	Hydrocarbon Cleaner
Appearance:	Light Yellow Liquid
Odor:	Mild
Specific Gravity:	1.05-1.07
pH:	9.0-10.0
See Also SDS	



Safety Data Sheet

Issue Date: 02-Dec-2016

Revision Date: 26-Jun-2017

Version 2

1. IDENTIFICATION

Product Identifier
Product Name SoilWash

Other means of identification

None

Recommended use of the chemical and restrictions on use
Recommended Use Cleaning and degreasing soil and equipment

Details of the supplier of the safety data sheet
Supplier Address

 Integro Solutions, LLC
 1329 Talley Loop
 Buda, TX 78610

Emergency Telephone Number
Company Contact
Emergency Telephone (24 hr)

 512-638-3140 - integro@integrosolutionsllc.com
 INFOTRAC 1-352-323-3500 (International)
 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear, Green

Physical State Liquid

Odor Mild

Classification

The classification and labeling information in this Safety Data Sheet should be viewed as provisional, as the product's ingredients and percentages are kept as a trade secret. This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Hazard Symbol

None

Signal Word

None

Precautionary Statement
**Prevention
Response
Storage
Disposal**

 Observe good industrial hygiene practices.
 Wash hands after handling.
 Store away from incompatible materials.
 Disposal of waste and residues in accordance with local authority requirements

Hazard(s) not otherwise classified May cause slight eye irritation.

SoilWash

Revision Date: 26-Jun-2017

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Surfactant Blend	Proprietary	1-5
Tetrapotassium pyrophosphate	7320-34-5	1-10
Tetrasodium EDTA	64-02-8	1-5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Flush immediately with water for 15 minutes. If irritation persists, see physician.
Skin Contact	Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If skin irritation persists, call a physician.
Inhalation	Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Ingestion	Do not induce vomiting without medical advice. Seek immediate medical attention/advice.

Most important symptoms and effects

Symptoms	May cause skin and eye irritation.
-----------------	------------------------------------

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
---------------------------	------------------------

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Unsuitable Extinguishing Media Do not use straight streams.

Specific Hazards Arising from the Chemical: Not determined.

Hazardous Combustion Products Oxides of carbon and nitrogen compounds.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	See Section 8 for Personal Protective Equipment.
-----------------------------	--

SoilWash

Revision Date: 26-Jun-2017

Environmental Precautions See Section 12 for additional Ecological Information. .

Methods and material for containment and cleaning up

Methods for Containment Prevent entry into waterways, rivers, lakes, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so. Absorb or cover with dry earth, sand or other non-combustible material.

Methods for Clean-Up Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. See section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing fumes, vapors, mists, spray. Wash face, hands, and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Do not store in open or unlabeled containers. Store away from heat and open flame. Storage temperature > 40 °F.

Incompatible Materials Strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines No exposure limits noted for ingredient(s) The following information is given as general guidance

Appropriate engineering controls

Engineering Controls Maintain eye wash fountain and quick-drench facilities in work area.

Individual protection measures, such as personal protective equipment

Eye/Face Protection If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

SoilWash

Revision Date: 26-Jun-2017

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Mild
Appearance	Clear	Odor Threshold	Not determined
Color	Green		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	11.5	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	Not flammable	
Evaporation Rate	< 1.0	(butyl acetate = 1)
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	> 1.0	@ 68°F (20 ° C)
Vapor Density	> 1.0	(Air=1)
Specific Gravity	1.04	(1=Water)
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content (%)	Not determined	

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	Not reactive under normal conditions
<u>Chemical Stability</u>	Stable under recommended storage conditions
<u>Possibility of Hazardous Reactions</u>	None under normal processing.
<u>Conditions to Avoid</u>	Incompatible Materials.
<u>Incompatible Materials</u>	Strong acids.
<u>Hazardous Decomposition Products</u>	Thermal decomposition and combustion are not expected to occur except under extreme conditions.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eye Contact	Irritating to eyes.
Skin Contact	Prolonged contact may cause redness and irritation.
Inhalation	Inhalation of mists may be irritating to the respiratory system.
Ingestion	May cause gastrointestinal irritation or diarrhea.

Component Information

SoilWash

Revision Date: 26-Jun-2017

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Tetrapotassium pyrophosphate 7320-34-5	-	> 4640 mg/kg (Rabbit)	-
Tetrasodium EDTA 64-02-8	= 10 g/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Carcinogenic potential is unknown.

Numerical measures of toxicity Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Tetrapotassium pyrophosphate 7320-34-5		100: 96 h Oncorhynchus mykiss mg/L LC50		100: 48 h water flea mg/L EC50
Tetrasodium EDTA 64-02-8	1.01: 72 h Desmodesmus subspicatus mg/L EC50	41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static		610: 24 h Daphnia magna mg/L EC50

Persistence/Degradability Biodegradation: Expected to be slowly biodegradable. Natural carbon dioxide will slowly neutralize this material.

Bioaccumulation Not determined

Mobility Not determined

Other Adverse Effects Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

SoilWash

Revision Date: 26-Jun-2017

IATA Not regulated**IMDG** Not regulated**15. REGULATORY INFORMATION****International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Tetrapotassium pyrophosphate	Present	X		Present		Present	X	Present	X	X
Tetrasodium EDTA	Present	X		Present		Present	X	Present	X	X

Legend:*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS - Japan Existing and New Chemical Substances**IECSC - China Inventory of Existing Chemical Substances**KECL - Korean Existing and Evaluated Chemical Substances**PICCS - Philippines Inventory of Chemicals and Chemical Substances**AICS - Australian Inventory of Chemical Substances***US Federal Regulations****CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 311/312 Hazard Categories

This material, as supplied, does not contain any substances subject to the requirements of SARA Sections 311/312 (40 CFR 370)

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains no chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

US State Regulations

California Proposition 65 : This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations: Not determined.

SoilWash

Revision Date: 26-Jun-2017

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	1	0	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	1	0	0	Not determined

Issue Date: 02-Dec-2016
Revision Date: 26-Jun-2017
Revision Note: Revised SECTION 2

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

From: [Yu, Olivia, EMNRD](#)
To: [Christine Alderman](#)
Cc: stucker@blm.gov
Subject: RE: Red Hills 1RP4857
Date: Thursday, January 18, 2018 3:22:00 PM

Dear Ms. Alderman:

NMOCD will not consider remedial activities until delineation is completed for 1RP-4857. Please submit a release characterization/delineation for this incident.

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Christine Alderman [mailto:calderman@cimarex.com]
Sent: Friday, January 5, 2018 9:12 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: Red Hills 1RP4857

Ms. Yu,

Please find attached the proposed remediation plan for this release.

Respectfully,

Christine Alderman

Cimarex Energy Co.



ESH Supervisor – Permian Basin
Midland TX
Cell – 432.853.7059



APPENDIX B

Bills of Lading

LEA LAND, LLC
OIL FIELD WASTE LANDFILL

1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106

PHONE: 405-236-4257
FAX: 405-236-4261

Bill To:
ACCOUNTS PAYABLE
CIMAREX ENERGY COMPANY
202 S. CHEYENNE AVENUE, SUITE 1000
TULSA, OK 74103-3001

INVOICE # 29860

Date: 9/15/2021

AFE Number:

Charge to: Red Hills Fed #3
Req: Terry Ainsworth

Date(s) of Service: 9/9/2021

Manifest #: 146171

Ship Via: H & R

Qty	U/M	Description	Unit Price	Total
74.22	Tons	Non-regulated & non-hazardous waste(soil)	\$20.00	\$1,484.40
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Subtotal	\$1,484.40
Sales tax rate	5.500%
Sales tax	\$81.64
Total	\$1,566.04

Make all checks payable to LEA LAND, LLC

If you have any questions concerning this invoice, please contact:
Shelley Denton at 405-249-1667, E-mail: shelley@lealandllc.com



CIMAREX ENERGY CO.
NON-HAZARDOUS MATERIAL MANIFEST
Part I: TO BE COMPLETED BY CIMAREX

No. 51559

A. Origin of Material Cimarex Region/District PERMAN
 Yard/Rig #/Lease P. ED. HILL 4 FC083 County LEA State NM
 B. Describe: Material Type: () Liquid () Solid () Sludge
 Waste Type: () Drilling Fluids- Fresh Water, Brine, or Oil Based (Circle One)
 () Drill Cuttings- Fresh Water, Chloride Impacted, or Oil Based (Circle One)
 () Completion Fluids () Produced Water () Tank Bottoms () Other _____

Describe Waste oily DIRT

C. Waste Quantity Bbls. _____ Cu. Yards _____ Gallons _____

D. Certification: The Waste/Recyclable material above was consigned to the carrier named in Part II below. I certify the above information is true and correct to the best of my knowledge

[Signature] _____ JIM HAUG _____
 Signature of Cimarex Representative Printed Name of Cimarex Representative Date & Time of Shipment
KYLE RIEVINS

Part II: TO BE COMPLETED BY TRANSPORTER IN PRESENCE OF CIMAREX REPRESENTATIVE
(Before Removing Gold Copy)

PERMIT NUMBER _____

A. Transporter Co. Name: HIR FUGRO PARTNERS LLC
 Mailing Address: PO. 3641
 City, State, Phone: DOBSON NM 88241 575 405 8471
 Hauler Number: #09 Top Gauge _____ Bottom Gauge _____

B. Transporter: I certify that I am authorized under the laws of this state to transport the above described material, and that the quantity set forth in Part I was received by me for shipment to the named destination.

[Signature] _____ Victor Hernandez _____ 9-9-21 _____
 Signature of Authorized Agent/Driver Printed Name of Authorized Agent/Driver Date & Time of Shipment

Part III: TO BE COMPLETED BY DISPOSAL

SITE CODE _____

A. Disposer Name: _____ LEALAND, LLC _____
 Mailing Address/Physical Location: _____ 6387 HOBBS HWY MM64 EAST _____
 City, State, Phone: _____ CARLSBAD, NM 88220 _____
575-887-4048

B. Treatment Method: () Injection () Landfill () Storage () Treatment () Surface Impoundment () Other _____

Disposer: I certify that I am authorized under the laws of this state to dispose the above described material and that the quantity of said material set forth in Part I was received by me.

[Signature] _____ S. Gonzalez _____ 9.9.21 10: _____
 Signature of Authorized Agent Printed Name of Authorized Agent Date & Time of Disposal

NOTE: IN ORDER TO BE PROCESSED FOR PAYMENT, TRANSPORTER MUST SUBMIT ORIGINAL OF THIS COMPLETED FORM WITH THE INVOICE FOR THE ABOVE DESCRIBED SERVICES. IN ABSENCE OF DISPOSAL AGENT, WASTE MANIFEST FROM DISPOSAL SITE MUST ACCOMPANY INVOICE.

White: Driver Retain Original Copy Yellow: Return to Cimarex Site Pink: Disposer Retain Copy Gold: Cimarex Site

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

LR

NON-HAZARDOUS WASTE MANIFEST

NO **146171**

1. PAGE ___ OF ___

2. TRAILER NO. **09**

G E N E R A T O R	3. COMPANY NAME Cimarex Petroleum	4. ADDRESS 600 N. Marienfeld # 600			5. PICK-UP DATE 9/9/2021	
	PHONE NO. (432) 571-7800	CITY Midland	STATE TX	ZIP 79701	6. TNRCC I.D. NO.	
N E R T E R	7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No.	9. TOTAL QUANTITY
	a. Non-Regulated, Non Hazardous Waste				1	CM
	b.					
	c.					
A T T R I B U T E E R	d. WT: 52360 47900 48180					
	12. COMMENTS OR SPECIAL INSTRUCTIONS: RED HILLS FED #3 <i>148440 TO ID/3/1/21</i>				13. WASTE PROFILE NO.	
T R A N S P O R T E R S	14. IN CASE OF EMERGENCY OR SPILL, CONTACT					
	NAME JOE ONTIVEROS	PHONE NO 575-887-4048	24-HOUR EMERGENCY NO.			
O F F I C E R	15. GENERATOR'S CERTIFICATION: I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC					
	PRINTED/TYPED NAME CO. MAN: TERRY AINSWORTH			SIGNATURE		DATE
T R A N S P O R T E R S	16. TRANSPORTER (1)			17. TRANSPORTER (2)		
	NAME: H & R ENTERPRISES, LLC.			NAME:		
	TEXAS I.D. NO.			TEXAS I.D. NO.		
	IN CASE OF EMERGENCY CONTACT: JM HAWLEY (575) 605-3471			IN CASE OF EMERGENCY CONTACT:		
D I S P O S I T I O N A L F A C I L I T Y	18. TRANSPORTER (1): Acknowledgment of receipt of material			19. TRANSPORTER (2): Acknowledgment of receipt of material		
	PRINTED/TYPED NAME SANTA MANZANO			PRINTED/TYPED NAME		
D I S P O S I T I O N A L F A C I L I T Y	SIGNATURE <i>Santa Manzano</i>			DATE 9/9/2021		DATE
	ADDRESS: Lea Land, LLC			PHONE: 575-887-4048		
	Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM					
A U T H O R I Z E D S I G N A T U R E	PERMIT NO. WM-01-035 - New Mexico			20. COMMENTS		
	21. DISPOSAL FACILITY'S CERTIFICATION: I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
AUTHORIZED SIGNATURE <i>Santa Manzano</i>			CELL NO.	DATE 9/9/2021	TIME 10:00	

LEA LAND, LLC
OIL FIELD WASTE LANDFILL

1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106

PHONE: 405-236-4257
FAX: 405-236-4261

Bill To:
ACCOUNTS PAYABLE
CIMAREX ENERGY COMPANY
202 S. CHEYENNE AVENUE, SUITE 1000
TULSA, OK 74103-3001

INVOICE # 29889

Date: 9/22/2021

AFE Number:

Charge to: Red Hills Fed #3
Req: Terry Ainsworth

Date(s) of Service: 09/10/21 - 09/14/21

Manifest #: See Attached List

Ship Via: H & R

Qty	U/M	Description	Unit Price	Total
210.59	Tons	Non-regulated & non-hazardous waste(soil)	\$20.00	\$4,211.80
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Subtotal	\$4,211.80
Sales tax rate	5.500%
Sales tax	\$231.65
Total	\$4,443.45

Make all checks payable to LEA LAND, LLC
If you have any questions concerning this invoice, please contact:
Shelley Denton at 405-249-1667, E-mail: shelley@lealandllc.com

Cimarex Energy - Weights Statement

<i>Receive Date</i>	<i>Manifest Number</i>	<i>Lease Name</i>	<i>Weight (lbs.)</i>	<i>Weight (Tons)</i>
9/10/2021	146214	Red Hills Fed #3	130,940	65.47
9/10/2021	146215	Red Hills Fed #3	49,080	24.54
9/13/2021	146248	Red Hills Fed #3	147,240	73.62
9/14/2021	146274	Red Hills Fed #3	93,920	46.96
			<i>Total</i>	
			421,180	210.59
			<i>lbs.</i>	<i>Tons</i>

Lea Land Landfill New Mexico
Mile Market # 64 US Highway 62/180
30 miles East of Carlsbad, NM * (505) 887-4048



CIMAREX ENERGY CO.

No. 51562

NON-HAZARDOUS MATERIAL MANIFEST

Part I: TO BE COMPLETED BY CIMAREX

A. Origin of Material Cimarex Region/District Permian

Yard/Rig #/Lease RED HILL #3 County LEO State NM

B. Describe: Material Type: () Liquid () Solid () Sludge
Waste Type: () Drilling Fluids- Fresh Water, Brine, or Oil Based (Circle One)
() Drill Cuttings- Fresh Water, Chloride Impacted, or Oil Based (Circle One)
() Completion Fluids () Produced Water () Tank Bottoms () Other _____

Describe Waste oil dirt

C. Waste Quantity Bbls. _____ Cu. Yards 20 Gallons _____

D. Certification: The Waste/Recyclable material above was consigned to the carrier named in Part II below. I certify the above information is true and correct to the best of my knowledge

[Signature] Printed Name of Cimarex Representative Jim Hawley Date & Time of Shipment _____
[Signature] Printed Name of Cimarex Representative Kyle Blount Date & Time of Shipment _____

Part II: TO BE COMPLETED BY TRANSPORTER IN PRESENCE OF CIMAREX REPRESENTATIVE

(Before Removing Gold Copy)

PERMIT NUMBER _____

A. Transporter Co. Name: HJR ENTERPRISES LLC

Mailing Address: PO 364

City, State, Phone: Hobbs NM 88241 575-609-3471

Hauler Number: 106 Top Gauge _____ Bottom Gauge _____

B. Transporter: I certify that I am authorized under the laws of this state to transport the above described material, and that the quantity set forth in Part I was received by me for shipment to the named destination.

[Signature] Printed Name of Authorized Agent/Driver Jim Date & Time of Shipment 9-10-21

Part III: TO BE COMPLETED BY DISPOSAL

SITE CODE _____

A. Disposer Name: LEALAND LLC

Mailing Address/Physical Location: 6387 HOBBS HWY MM64 EAST

City, State, Phone: CARLSBAD, NM 88220
575-887-4048

B. Treatment Method: () Injection () Landfill () Storage () Treatment () Surface Impoundment
() Other _____

Disposer: I certify that I am authorized under the laws of this state to dispose the above described material and that the quantity of said material set forth in Part I was received by me.

[Signature] Printed Name of Authorized Agent S Gonzalez Date & Time of Disposal 9-10-21 9:30

NOTE: IN ORDER TO BE PROCESSED FOR PAYMENT, TRANSPORTER MUST SUBMIT ORIGINAL OF THIS COMPLETED FORM WITH THE INVOICE FOR THE ABOVE DESCRIBED SERVICES. IN ABSENCE OF DISPOSAL AGENT, WASTE MANIFEST FROM DISPOSAL SITE MUST ACCOMPANY INVOICE.

White: Driver Retain Original Copy Yellow: Return to Cimarex Site Pink: Disposer Retain Copy Gold: Cimarex Site



CIMAREX ENERGY CO.

No. 51561

NON-HAZARDOUS MATERIAL MANIFEST

Part I: TO BE COMPLETED BY CIMAREX

- A. Origin of Material Cimarex Region/District PERMIAN
- Yard/Rig #/Lease ROD HILLS / #3 County LEA State NM
- B. Describe: Material Type: () Liquid () Solid () Sludge
- Waste Type: () Drilling Fluids- Fresh Water, Brine, or Oil Based (Circle One)
- () Drill Cuttings- Fresh Water, Chloride Impacted, or Oil Based (Circle One)
- () Completion Fluids () Produced Water () Tank Bottoms () Other _____

Describe Waste oily dirt

- C. Waste Quantity Bbls. _____ Cu. Yards _____ Gallons _____
- D. Certification: The Waste/Recyclable material above was consigned to the carrier named in Part II below. I certify the above information is true and correct to the best of my knowledge

[Signature] _____ JIM HAWES _____
 Signature of Cimarex Representative Printed Name of Cimarex Representative Date & Time of Shipment
Kyle RIVINS

Part II: TO BE COMPLETED BY TRANSPORTER IN PRESENCE OF CIMAREX REPRESENTATIVE
 (Before Removing Gold Copy)

PERMIT NUMBER _____

- A. Transporter Co. Name: HAR BJORP 21565 LLC
- Mailing Address: PO 3641
- City, State, Phone: Hobbs NM 88241 575 605 3471
- Hauler Number: 109 Top Gauge _____ Bottom Gauge _____

- B. Transporter: I certify that I am authorized under the laws of this state to transport the above described material, and that the quantity set forth in Part I was received by me for shipment to the named destination.
- [Signature] _____ Victor Martinez _____ 9.10.21
 Signature of Authorized Agent/Driver Printed Name of Authorized Agent/Driver Date & Time of Shipment

Part III: TO BE COMPLETED BY DISPOSAL

SITE CODE _____

- A. Disposer Name: LEA LAND, LLC
- Mailing Address/Physical Location: 6387 HOBBS HWY MM64 EAST
- City, State, Phone: CARLSBAD, NM 88220
575-887-4048

- B. Treatment Method: () Injection () Landfill () Storage () Treatment () Surface Impoundment
- () Other _____

Disposer: I certify that I am authorized under the laws of this state to dispose the above described material and that the quantity of said material set forth in Part I was received by me.

[Signature] _____ J. Gonzalez _____ 9.10.21
 Signature of Authorized Agent Printed Name of Authorized Agent Date & Time of Disposal

NOTE: IN ORDER TO BE PROCESSED FOR PAYMENT, TRANSPORTER MUST SUBMIT ORIGINAL OF THIS COMPLETED FORM WITH THE INVOICE FOR THE ABOVE DESCRIBED SERVICES. IN ABSENCE OF DISPOSAL AGENT, WASTE MANIFEST FROM DISPOSAL SITE MUST ACCOMPANY INVOICE.

White: Driver Retain Original Copy Yellow: Return to Cimarex Site Pink: Disposer Retain Copy Gold: Cimarex Site



CIMAREX ENERGY CO.

No. 51563

NON-HAZARDOUS MATERIAL MANIFEST

Part I: TO BE COMPLETED BY CIMAREX

A. Origin of Material Cimarex Region/District Permian

Yard/Rig #/Lease ROCKWELL #3 County (151) State NM

B. Describe: Material Type: () Liquid () Solid () Sludge
 Waste Type: () Drilling Fluids- Fresh Water, Brine, or Oil Based (Circle One)
 () Drill Cuttings- Fresh Water, Chloride Impacted, or Oil Based (Circle One)
 () Completion Fluids () Produced Water () Tank Bottoms () Other _____

Describe Waste oil cut

C. Waste Quantity Bbls. _____ Cu. Yards 20 Gallons _____

D. Certification: The Waste/Recyclable material above was consigned to the carrier named in Part II below. I certify the above information is true and correct to the best of my knowledge

[Signature] Printed Name of Cimarex Representative Jim Nowlin Date & Time of Shipment _____
[Signature] Printed Name of Cimarex Representative Kyle Blodine Date & Time of Shipment _____

Part II: TO BE COMPLETED BY TRANSPORTER IN PRESENCE OF CIMAREX REPRESENTATIVE (Before Removing Gold Copy)

PERMIT NUMBER _____

A. Transporter Co. Name: NH R ENTERPRISES LLC

Mailing Address: P.O. 3641

City, State, Phone: Hobbs NM 88241 575 605-2471

Hauler Number: #29 Top Gauge _____ Bottom Gauge _____

B. Transporter: I certify that I am authorized under the laws of this state to transport the above described material, and that the quantity set forth in Part I was received by me for shipment to the named destination.

[Signature] Printed Name of Authorized Agent/Driver WALTER KARRAND Date & Time of Shipment 9-13-21
 Signature of Authorized Agent/Driver _____

Part III: TO BE COMPLETED BY DISPOSAL

SITE CODE _____

A. Disposer Name: LEA LAND, LLC

Mailing Address/Physical Location: 6387 HOBBS HWY MM64 EAST
CARLSBAD, NM 88220

City, State, Phone: 575-887-4048

B. Treatment Method: () Injection () Landfill () Storage () Treatment () Surface Impoundment
 () Other X

Disposer: I certify that I am authorized under the laws of this state to dispose the above described material and that the quantity of said material set forth in Part I was received by me.

[Signature] Printed Name of Authorized Agent S Gonzalez Date & Time of Disposal 9-13-21
 Signature of Authorized Agent _____

NOTE: IN ORDER TO BE PROCESSED FOR PAYMENT, TRANSPORTER MUST SUBMIT ORIGINAL OF THIS COMPLETED FORM WITH THE INVOICE FOR THE ABOVE DESCRIBED SERVICES. IN ABSENCE OF DISPOSAL AGENT, WASTE MANIFEST FROM DISPOSAL SITE MUST ACCOMPANY INVOICE.

White: Driver Retain Original Copy Yellow: Return to Cimarex Site Pink: Disposer Retain Copy Gold: Cimarex Site



CIMAREX ENERGY CO.

No. 51560

NON-HAZARDOUS MATERIAL MANIFEST

Part I: TO BE COMPLETED BY CIMAREX

A. Origin of Material Cimarex Region/District 4210
 Yard/Rig #/Lease 2013 #9 County LBA State NM
 B. Describe: Material Type: () Liquid () Solid () Sludge
 Waste Type: () Drilling Fluids- Fresh Water, Brine, or Oil Based (Circle One)
 () Drill Cuttings- Fresh Water, Chloride Impacted, or Oil Based (Circle One)
 () Completion Fluids () Produced Water () Tank Bottoms () Other _____

Describe Waste OILY DIRT

C. Waste Quantity Bbls. _____ Cu. Yards 20 Gallons _____

D. Certification: The Waste/Recyclable material above was consigned to the carrier named in Part II below. I certify the above information is true and correct to the best of my knowledge

[Signature] _____ Jim Hawk _____
 Signature of Cimarex Representative Printed Name of Cimarex Representative Date & Time of Shipment

Part II: TO BE COMPLETED BY TRANSPORTER IN PRESENCE OF CIMAREX REPRESENTATIVE
 (Before Removing Gold Copy)

PERMIT NUMBER _____

A. Transporter Co. Name: HAR ENTERPRISES, LLC
 Mailing Address: P.O. 3641
 City, State, Phone: Hobbs NM 88241 575-605-3471
 Hauler Number: 309 Top Gauge _____ Bottom Gauge _____

B. Transporter: I certify that I am authorized under the laws of this state to transport the above described material, and that the quantity set forth in Part I was received by me for shipment to the named destination.

[Signature] _____ VICTOR MORALES _____ 9.14.21
 Signature of Authorized Agent/Driver Printed Name of Authorized Agent/Driver Date & Time of Shipment

Part III: TO BE COMPLETED BY DISPOSAL

SITE CODE _____

A. Disposer Name: _____ LEA LAND, LLC _____
 Mailing Address/Physical Location: _____ 6387 HOBBS HWY MM64 EAST _____
 _____ CARLSBAD, NM 88220 _____
 City, State, Phone: _____ 575-887-4048 _____

B. Treatment Method: () Injection () Landfill () Storage () Treatment () Surface Impoundment () Other _____

Disposer: I certify that I am authorized under the laws of this state to dispose the above described material and that the quantity of said material set forth in Part I was received by me.

[Signature] _____ S. Gonzalez _____ 9.14.21 10:30
 Signature of Authorized Agent Printed Name of Authorized Agent Date & Time of Disposal

NOTE: IN ORDER TO BE PROCESSED FOR PAYMENT, TRANSPORTER MUST SUBMIT ORIGINAL OF THIS COMPLETED FORM WITH THE INVOICE FOR THE ABOVE DESCRIBED SERVICES. IN ABSENCE OF DISPOSAL AGENT, WASTE MANIFEST FROM DISPOSAL SITE MUST ACCOMPANY INVOICE.

White: Driver Retain Original Copy Yellow: Return to Cimarex Site Pink: Disposer Retain Copy Gold: Cimarex Site

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

Vaqueros
106

NON-HAZARDOUS WASTE MANIFEST

NO **146214**

1. PAGE ___ OF ___

2. TRAILER NO. **106**

G E N E R A T O R	3. COMPANY NAME Cimarex Petroleum	4. ADDRESS 600 N. Marienfeld # 600	5. PICK-UP DATE 9/10/2021
	PHONE NO. (432) 571-7800	CITY Midland STATE TX ZIP 79701	6. TNRCC I.D. NO.

N E R A T O R	7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
	a. Non-Regulated, Non Hazardous Waste	1	CM			
	b. 41,880					
	c.					

R A T O R	d. WT: 42060 47000	12. COMMENTS OR SPECIAL INSTRUCTIONS: RED HILLS FED #3	13. WASTE PROFILE NO. TC 130940
-----------------------	---------------------------	--	---

T R A N S P O R T E R S	14. IN CASE OF EMERGENCY OR SPILL, CONTACT		
	NAME JOE ONTIVEROS	PHONE NO 575-887-4048	24-HOUR EMERGENCY NO.

15. GENERATOR'S CERTIFICATION: I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R A T O R	PRINTED/TYPED NAME CO. MAN: TERRY AINSWORTH	SIGNATURE	DATE
-----------------------	---	-----------	------

T R A N S P O R T E R S	16. TRANSPORTER (1)	17. TRANSPORTER (2)
	NAME: H & R ENTERPRISES, LLC.	NAME:
	TEXAS I.D. NO.	TEXAS I.D. NO.
	IN CASE OF EMERGENCY CONTACT: JM HAWLEY (575) 605-3471	IN CASE OF EMERGENCY CONTACT:

T R A N S P O R T E R S	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSPORTER (2): Acknowledgment of receipt of material
	PRINTED/TYPED NAME Juan Lopez DATE 9/10/2021	PRINTED/TYPED NAME _____ DATE _____

D I S P O S I T O R Y	Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
---	---------------	---	------------------------

D I S P O S I T O R Y	PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS
---	---	--------------

D I S P O S I T O R Y	21. DISPOSAL FACILITY'S CERTIFICATION: I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.		
	AUTHORIZED SIGNATURE Santos Monzalez	CELL NO.	DATE 9/10/2021 TIME 9:55

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

FR

NON-HAZARDOUS WASTE MANIFEST

NO **146215**

1. PAGE ___ OF ___

2. TRAILER NO. **09**

G E N E R A T O R	3. COMPANY NAME Cimarex Petroleum	4. ADDRESS 600 N. Marienfeld # 600	5. PICK-UP DATE 9/10/2021		
	PHONE NO. (432) 571-7800	CITY Midland STATE TX ZIP 79701	6. TNRCC I.D. NO.		
N E R A T O R	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.
	a. Non-Regulated, Non Hazardous Waste		1 CM		
	b.				
	c.				
A T T R I B U T E E R	d. WT: 49080				
	12. COMMENTS OR SPECIAL INSTRUCTIONS: RED HILLS FED #3			13. WASTE PROFILE NO.	
T R A N S P O R T E R S	14. IN CASE OF EMERGENCY OR SPILL, CONTACT				
	NAME JOE ONTIVEROS	PHONE NO 575-887-4048	24-HOUR EMERGENCY NO.		
D I S P O S I T Y	15. GENERATOR'S CERTIFICATION: I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC				
	PRINTED/TYPED NAME CO. MAN: TERRY AINSWORTH	SIGNATURE			DATE
D I S P O S I T Y	16. TRANSPORTER (1)		17. TRANSPORTER (2)		
	NAME: H & R ENTERPRISES, LLC.		NAME:		
D I S P O S I T Y	TEXAS I.D. NO.		TEXAS I.D. NO.		
	IN CASE OF EMERGENCY CONTACT: JM HAWLEY (575) 805-3471		IN CASE OF EMERGENCY CONTACT:		
D I S P O S I T Y	EMERGENCY PHONE:		EMERGENCY PHONE:		
	18. TRANSPORTER (1): Acknowledgment of receipt of material		19. TRANSPORTER (2): Acknowledgment of receipt of material		
D I S P O S I T Y	PRINTED/TYPED NAME SANTOS MONZALEZ		PRINTED/TYPED NAME _____		
	SIGNATURE Santos Gonzalez DATE 9/10/2021		SIGNATURE _____ DATE _____		
D I S P O S I T Y	Lea Land, LLC		ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM		PHONE: 575-887-4048
	PERMIT NO. WM-01-035 - New Mexico		20. COMMENTS		
D I S P O S I T Y	21. DISPOSAL FACILITY'S CERTIFICATION: I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.				
	AUTHORIZED SIGNATURE Santos Gonzalez		CELL NO.	DATE 9/10/2021	TIME 10:55

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

HR

NON-HAZARDOUS WASTE MANIFEST

NO **146248**

1. PAGE ___ OF ___

2. TRAILER NO. **09**

G E N E R A T O R	3. COMPANY NAME Cimarex Petroleum	4. ADDRESS 600 N. Marienfeld # 600			5. PICK-UP DATE 9/13/2021			
	PHONE NO. (432) 571-7800	CITY Midland	STATE TX	ZIP 79701	6. TNRCC I.D. NO.			
N E R E A R T Y	7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No.	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
	a. Non-Regulated, Non Hazardous Waste				1	CM		
	b.							
	c.							
A U T H O R I Z E D	d. WT: 44,140 52,020 51080							
	12. COMMENTS OR SPECIAL INSTRUCTIONS: RED HILLS FED #3 TC 147240					13. WASTE PROFILE NO.		
T R A N S P O R T E R S	14. IN CASE OF EMERGENCY OR SPILL, CONTACT							
	NAME JOE ONTIVEROS		PHONE NO. 575-887-4048		24-HOUR EMERGENCY NO.			
D I S P O S I T Y	15. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC							
	PRINTED/TYPED NAME CO. MAN: TERRY AINSWORTH			SIGNATURE		DATE		
D I S P O S I T Y	16. TRANSPORTER (1)			17. TRANSPORTER (2)				
	NAME: H & R ENTERPRISES, LLC.			NAME:				
D I S P O S I T Y	TEXAS I.D. NO.			TEXAS I.D. NO.				
	IN CASE OF EMERGENCY CONTACT: JM HAWLEY (575) 605-3471			IN CASE OF EMERGENCY CONTACT:				
D I S P O S I T Y	EMERGENCY PHONE:			EMERGENCY PHONE:				
	18. TRANSPORTER (1): Acknowledgment of receipt of material			19. TRANSPORTER (2): Acknowledgment of receipt of material				
D I S P O S I T Y	PRINTED/TYPED NAME VICTOR MARIANO			PRINTED/TYPED NAME _____				
	SIGNATURE Victor Mariano DATE 9/13/2021			SIGNATURE _____ DATE _____				
D I S P O S I T Y	Lea Land, LLC		ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM		PHONE: 575-887-4048			
	PERMIT NO. WM-01-035 - New Mexico		20. COMMENTS					
D I S P O S I T Y	21. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.							
	AUTHORIZED SIGNATURE Victoria Bustamante			CELL NO.		DATE 9/13/2021		TIME 11 00

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

HR

NON-HAZARDOUS WASTE MANIFEST

NO **146274**

1. PAGE ___ OF ___

2. TRAILER NO.

09

G E N E R A T O R	3. COMPANY NAME Cimarex Petroleum	4. ADDRESS 600 N. Marienfeld # 600	5. PICK-UP DATE 9/14/2021			
	PHONE NO. (432) 571-7800	CITY Midland	STATE TX	ZIP 79701		
E N T R Y	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
	a. Non-Regulated, Non Hazardous Waste		1 CM			
	b.					
	c.					
A U T H O R I Z E D	d. WT: 38,480 55440					
	12. COMMENTS OR SPECIAL INSTRUCTIONS: RED HILLS FED # 3		TC 93,920		13. WASTE PROFILE NO.	
T R A N S P O R T E R	14. IN CASE OF EMERGENCY OR SPILL, CONTACT					
	NAME JOE ONTIVEROS	PHONE NO 575-887-4048	24-HOUR EMERGENCY NO.			
O F F I C E	15. GENERATOR'S CERTIFICATION: I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC					
	PRINTED/TYPED NAME CO. MAN: TERRY AINSWORTH	SIGNATURE			DATE	
T R A N S P O R T E R S	16. TRANSPORTER (1)		17. TRANSPORTER (2)			
	NAME: H & R ENTERPRISES, LLC.		NAME:			
	TEXAS I.D. NO.		TEXAS I.D. NO.			
	IN CASE OF EMERGENCY CONTACT: JM HAWLEY (575) 605-3471		IN CASE OF EMERGENCY CONTACT:			
EMERGENCY PHONE:		EMERGENCY PHONE:				
18. TRANSPORTER (1): Acknowledgment of receipt of material			19. TRANSPORTER (2): Acknowledgment of receipt of material			
PRINTED/TYPED NAME Victor Manzano		PRINTED/TYPED NAME				
SIGNATURE Victor Manzano		DATE 9/14/2021		SIGNATURE		DATE
D I S P O S I T I O N	Lea Land, LLC		ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM		PHONE: 575-887-4048	
	PERMIT NO. WM-01-035 - New Mexico		20. COMMENTS			
	21. DISPOSAL FACILITY'S CERTIFICATION: I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
A U T H O R I Z E D	AUTHORIZED SIGNATURE Victoria Bustamante		CELL NO.		DATE 9/14/2021	TIME 10:35



APPENDIX C
Photographic Documentation

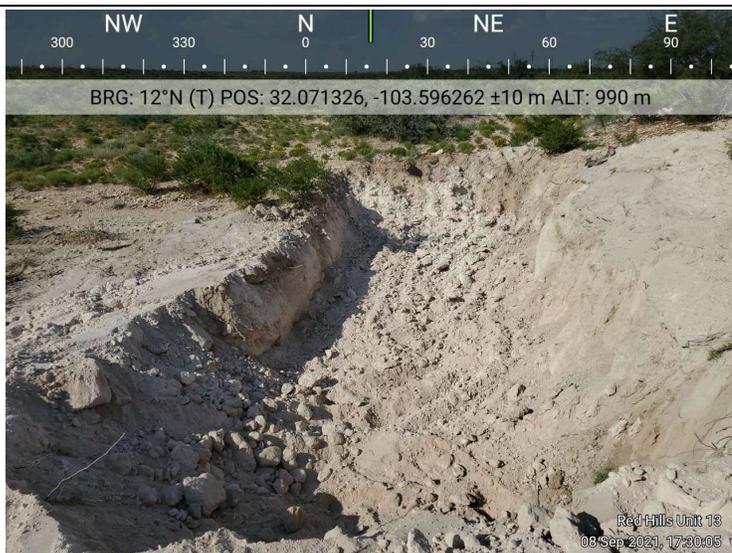
Photograph 1
Description: Northeast end of the original spill area facing east.



Photograph 2
Description: Overview of the spill area facing southwest towards drainage.



Photograph 3
Description: SP1.1BH sample location.



Photograph 4
Description: SP1.6BH sample location.



Photograph 5
Description: SP3.2BH and SP3.3SW sample location.



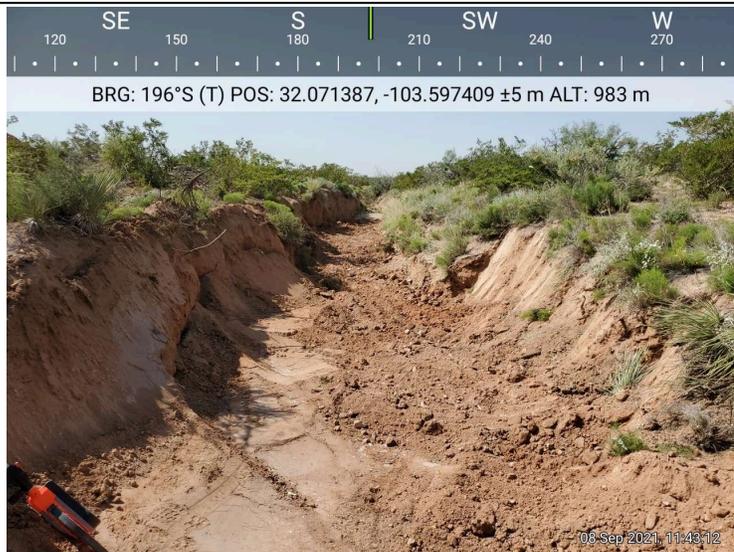
Photograph 6
Description: SP4.6BH sample location.



Photograph 7
Description: SP5.1SW and SP5.3SW sample location.



Photograph 8
Description: SP5.5BH and SP5.8BH sample location.





Appendix D

Laboratory Data Sheets
& Chain of Custody Documentation



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 15, 2021

JIM HAWLEY
H & R ENTERPRISES
1010 GAMBLIN ROAD
HOBBS, NM 88240

RE: RED HILLS FED #3

Enclosed are the results of analyses for samples received by the laboratory on 09/14/21 9:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

H & R ENTERPRISES
 JIM HAWLEY
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 09/14/2021
 Reported: 09/15/2021
 Project Name: RED HILLS FED #3
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 09/13/2021
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5.1 SW (H212537-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2021	ND	2.04	102	2.00	0.985	
Toluene*	<0.050	0.050	09/14/2021	ND	2.00	99.9	2.00	3.47	
Ethylbenzene*	<0.050	0.050	09/14/2021	ND	1.98	98.9	2.00	3.09	
Total Xylenes*	<0.150	0.150	09/14/2021	ND	6.08	101	6.00	2.92	
Total BTEX	<0.300	0.300	09/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/14/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2021	ND	222	111	200	1.19	
DRO >C10-C28*	<10.0	10.0	09/14/2021	ND	210	105	200	0.504	
EXT DRO >C28-C36	<10.0	10.0	09/14/2021	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-133

Surrogate: 1-Chlorooctadecane 110 % 38.9-142

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Hank W McConnell
Apex Environmental
505 N. Big Spring Street #301A
Midland, TX 79701

Project: Red Hills Unit 003

Project Number: [none]

Location:

Lab Order Number: 1I09001



Current Certification

Report Date: 09/10/21

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP4. 6BH (2) 2'	1109001-01	Soil	09/08/21 13:35	09-09-2021 08:17
SP1. 1BH (2) 4'	1109001-02	Soil	09/08/21 15:10	09-09-2021 08:17
SP1. 6BH (2) 4'	1109001-03	Soil	09/08/21 15:15	09-09-2021 08:17
SP3. 2BH (2) 4'	1109001-04	Soil	09/08/21 15:20	09-09-2021 08:17
SP3. 3SW (2) 0-4'	1109001-05	Soil	09/08/21 15:25	09-09-2021 08:17
SP5. 3SW (2) 0-4'	1109001-06	Soil	09/08/21 15:28	09-09-2021 08:17
SP5. 1SW (2) 0-4'	1109001-07	Soil	09/08/21 16:15	09-09-2021 08:17
SP5. 5BH (2) 2'	1109001-08	Soil	09/08/21 16:18	09-09-2021 08:17
SP5. 8BH (2) 2'	1109001-09	Soil	09/08/21 16:20	09-09-2021 08:17

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP4. 6BH (2) 2'
1109001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:10	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:10	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:10	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:10	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:10	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.8 %	80-120		P110901	09/09/21 09:40	09/09/21 16:10	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		112 %	80-120		P110901	09/09/21 09:40	09/09/21 16:10	EPA 8021B	

Organics by GC

C6-C12	ND	26.3	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:07	TX 1005	
>C12-C28	ND	26.3	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:07	TX 1005	
>C28-C35	ND	26.3	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:07	TX 1005	
Surrogate: 1-Chlorooctane		93.8 %	70-130		P110904	09/09/21 09:43	09/09/21 13:07	TX 1005	
Surrogate: o-Terphenyl		99.9 %	70-130		P110904	09/09/21 09:43	09/09/21 13:07	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.3	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 13:07	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	17.1	0.526	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 12:43	EPA 300.0	
% Moisture	5.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP1. 1BH (2) 4'
1109001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:32	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:32	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:32	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:32	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:32	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		114 %	80-120		P110901	09/09/21 09:40	09/09/21 16:32	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.8 %	80-120		P110901	09/09/21 09:40	09/09/21 16:32	EPA 8021B	

Organics by GC

C6-C12	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:30	TX 1005	
>C12-C28	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:30	TX 1005	
>C28-C35	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:30	TX 1005	
<i>Surrogate: 1-Chlorooctane</i>		89.7 %	70-130		P110904	09/09/21 09:43	09/09/21 13:30	TX 1005	
<i>Surrogate: o-Terphenyl</i>		96.4 %	70-130		P110904	09/09/21 09:43	09/09/21 13:30	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 13:30	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	180	0.532	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 13:29	EPA 300.0	
% Moisture	6.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP1. 6BH (2) 4'
1109001-03 (Soil)

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							

Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:53	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:53	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:53	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:53	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 16:53	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P110901	09/09/21 09:40	09/09/21 16:53	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.6 %	80-120		P110901	09/09/21 09:40	09/09/21 16:53	EPA 8021B	

Organics by GC

C6-C12	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:52	TX 1005	
>C12-C28	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:52	TX 1005	
>C28-C35	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 13:52	TX 1005	
Surrogate: 1-Chlorooctane		92.7 %	70-130		P110904	09/09/21 09:43	09/09/21 13:52	TX 1005	
Surrogate: o-Terphenyl		98.5 %	70-130		P110904	09/09/21 09:43	09/09/21 13:52	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 13:52	[CALC]	

General Chemistry Parameters by EPA/ Standard Methods

Chloride	164	0.532	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 13:44	EPA 300.0	
% Moisture	6.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP3. 2BH (2) 4'
1109001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:14	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:14	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:14	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:14	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:14	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		112 %	80-120		P110901	09/09/21 09:40	09/09/21 17:14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.8 %	80-120		P110901	09/09/21 09:40	09/09/21 17:14	EPA 8021B	

Organics by GC

C6-C12	ND	26.3	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 14:15	TX 1005	
>C12-C28	ND	26.3	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 14:15	TX 1005	
>C28-C35	ND	26.3	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 14:15	TX 1005	
Surrogate: 1-Chlorooctane		95.3 %	70-130		P110904	09/09/21 09:43	09/09/21 14:15	TX 1005	
Surrogate: o-Terphenyl		101 %	70-130		P110904	09/09/21 09:43	09/09/21 14:15	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.3	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 14:15	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	70.3	0.526	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 14:00	EPA 300.0	
% Moisture	5.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP3. 3SW (2) 0-4'
1109001-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:35	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:35	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:35	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:35	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:35	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	80-120		P110901	09/09/21 09:40	09/09/21 17:35	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	80-120		P110901	09/09/21 09:40	09/09/21 17:35	EPA 8021B	

Organics by GC

C6-C12	ND	26.0	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 14:37	TX 1005	
>C12-C28	ND	26.0	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 14:37	TX 1005	
>C28-C35	ND	26.0	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 14:37	TX 1005	
Surrogate: 1-Chlorooctane		90.9 %	70-130		P110904	09/09/21 09:43	09/09/21 14:37	TX 1005	
Surrogate: o-Terphenyl		96.7 %	70-130		P110904	09/09/21 09:43	09/09/21 14:37	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 14:37	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	10.6	0.521	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 14:15	EPA 300.0	
% Moisture	4.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP5. 3SW (2) 0-4'
1109001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:57	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:57	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:57	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:57	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 17:57	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	80-120		P110901	09/09/21 09:40	09/09/21 17:57	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		100 %	80-120		P110901	09/09/21 09:40	09/09/21 17:57	EPA 8021B	

Organics by GC

C6-C12	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:00	TX 1005	
>C12-C28	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:00	TX 1005	
>C28-C35	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:00	TX 1005	
Surrogate: 1-Chlorooctane		89.7 %	70-130		P110904	09/09/21 09:43	09/09/21 15:00	TX 1005	
Surrogate: o-Terphenyl		95.3 %	70-130		P110904	09/09/21 09:43	09/09/21 15:00	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.9	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 15:00	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	261	0.538	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 14:30	EPA 300.0	
% Moisture	7.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP5. 1SW (2) 0-4'
1109001-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:18	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:18	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:18	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:18	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	94.5 %		80-120		P110901	09/09/21 09:40	09/09/21 18:18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	113 %		80-120		P110901	09/09/21 09:40	09/09/21 18:18	EPA 8021B	

Organics by GC

C6-C12	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:22	TX 1005	
>C12-C28	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:22	TX 1005	
>C28-C35	ND	26.6	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:22	TX 1005	
Surrogate: 1-Chlorooctane	90.0 %		70-130		P110904	09/09/21 09:43	09/09/21 15:22	TX 1005	
Surrogate: o-Terphenyl	95.4 %		70-130		P110904	09/09/21 09:43	09/09/21 15:22	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 15:22	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	792	0.532	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 14:45	EPA 300.0	
% Moisture	6.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP5. 5BH (2) 2'
1109001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:39	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:39	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:39	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:39	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 18:39	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		116 %	80-120		P110901	09/09/21 09:40	09/09/21 18:39	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.1 %	80-120		P110901	09/09/21 09:40	09/09/21 18:39	EPA 8021B	

Organics by GC

C6-C12	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:45	TX 1005	
>C12-C28	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:45	TX 1005	
>C28-C35	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 15:45	TX 1005	
Surrogate: 1-Chlorooctane		94.6 %	70-130		P110904	09/09/21 09:43	09/09/21 15:45	TX 1005	
Surrogate: o-Terphenyl		99.7 %	70-130		P110904	09/09/21 09:43	09/09/21 15:45	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.9	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 15:45	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	69.8	0.538	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 15:01	EPA 300.0	
% Moisture	7.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

SP5. 8BH (2) 2'
1109001-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 19:00	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 19:00	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 19:00	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 19:00	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P110901	09/09/21 09:40	09/09/21 19:00	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		116 %	80-120		P110901	09/09/21 09:40	09/09/21 19:00	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.5 %	80-120		P110901	09/09/21 09:40	09/09/21 19:00	EPA 8021B	

Organics by GC

C6-C12	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 16:07	TX 1005	
>C12-C28	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 16:07	TX 1005	
>C28-C35	ND	26.9	mg/kg dry	1	P110904	09/09/21 09:43	09/09/21 16:07	TX 1005	
Surrogate: 1-Chlorooctane		85.8 %	70-130		P110904	09/09/21 09:43	09/09/21 16:07	TX 1005	
Surrogate: o-Terphenyl		92.5 %	70-130		P110904	09/09/21 09:43	09/09/21 16:07	TX 1005	
Total Hydrocarbon nC6-nC35	ND	26.9	mg/kg dry	1	[CALC]	09/09/21 09:43	09/09/21 16:07	[CALC]	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	0.538	mg/kg dry	1	P110905	09/09/21 11:09	09/09/21 15:16	EPA 300.0	
% Moisture	7.0	0.1	%	1	P111006	09/10/21 11:34	09/10/21 11:39	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P110901 - * DEFAULT PREP *****

Blank (P110901-BLK1)

Prepared & Analyzed: 09/09/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.138		"	0.120		115	80-120			
Surrogate: 4-Bromofluorobenzene	0.121		"	0.120		101	80-120			

LCS (P110901-BS1)

Prepared & Analyzed: 09/09/21

Benzene	0.0877	0.00100	mg/kg wet	0.100		87.7	70-130			
Toluene	0.0863	0.00100	"	0.100		86.3	70-130			
Ethylbenzene	0.0824	0.00100	"	0.100		82.4	70-130			
Xylene (p/m)	0.172	0.00200	"	0.200		86.0	70-130			
Xylene (o)	0.0801	0.00100	"	0.100		80.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.124		"	0.120		103	80-120			

LCS Dup (P110901-BSD1)

Prepared & Analyzed: 09/09/21

Benzene	0.0919	0.00100	mg/kg wet	0.100		91.9	70-130	4.67	20	
Toluene	0.0924	0.00100	"	0.100		92.4	70-130	6.87	20	
Ethylbenzene	0.0885	0.00100	"	0.100		88.5	70-130	7.16	20	
Xylene (p/m)	0.184	0.00200	"	0.200		91.8	70-130	6.49	20	
Xylene (o)	0.0807	0.00100	"	0.100		80.7	70-130	0.697	20	
Surrogate: 1,4-Difluorobenzene	0.124		"	0.120		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.8	80-120			

Calibration Blank (P110901-CCB1)

Prepared & Analyzed: 09/09/21

Benzene	0.00		mg/kg wet							
Toluene	1.63		"							B
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.0	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P110901 - * DEFAULT PREP *****

Calibration Blank (P110901-CCB2)

Prepared & Analyzed: 09/09/21

Benzene	0.00		mg/kg wet							
Toluene	1.64		"							B
Ethylbenzene	0.00		"							
Xylene (p/m)	0.600		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.134		"	0.120		112	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.4	80-120			

Calibration Blank (P110901-CCB3)

Prepared & Analyzed: 09/09/21

Benzene	0.00		mg/kg wet							
Toluene	1.00		"							B
Ethylbenzene	0.00		"							
Xylene (p/m)	0.700		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.5	80-120			

Calibration Check (P110901-CCV1)

Prepared & Analyzed: 09/09/21

Benzene	0.0978	0.00100	mg/kg wet	0.100		97.8	80-120			
Toluene	0.0965	0.00100	"	0.100		96.5	80-120			
Ethylbenzene	0.0917	0.00100	"	0.100		91.7	80-120			
Xylene (p/m)	0.189	0.00200	"	0.200		94.3	80-120			
Xylene (o)	0.0808	0.00100	"	0.100		80.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.101		"	0.120		84.1	75-125			

Calibration Check (P110901-CCV2)

Prepared & Analyzed: 09/09/21

Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.0942	0.00100	"	0.100		94.2	80-120			
Xylene (p/m)	0.186	0.00200	"	0.200		93.1	80-120			
Xylene (o)	0.0815	0.00100	"	0.100		81.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.120		101	75-125			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.5	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P110901 - * DEFAULT PREP *****

Calibration Check (P110901-CCV3)

Prepared & Analyzed: 09/09/21

Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.0994	0.00100	"	0.100		99.4	80-120			
Ethylbenzene	0.0908	0.00100	"	0.100		90.8	80-120			
Xylene (p/m)	0.186	0.00200	"	0.200		92.9	80-120			
Xylene (o)	0.0810	0.00100	"	0.100		81.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.102		"	0.120		85.3	75-125			
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		100	75-125			

Matrix Spike (P110901-MS1)

Source: 1109001-09

Prepared & Analyzed: 09/09/21

Benzene	0.0908	0.00108	mg/kg dry	0.108	ND	84.4	80-120			
Toluene	0.0867	0.00108	"	0.108	0.000645	80.0	80-120			
Ethylbenzene	0.0791	0.00108	"	0.108	ND	73.6	80-120			QM-07
Xylene (p/m)	0.164	0.00215	"	0.215	ND	76.5	80-120			QM-07
Xylene (o)	0.0680	0.00108	"	0.108	ND	63.2	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.128		"	0.129		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.129		87.4	80-120			

Matrix Spike Dup (P110901-MSD1)

Source: 1109001-09

Prepared & Analyzed: 09/09/21

Benzene	0.0910	0.00108	mg/kg dry	0.108	ND	84.7	80-120	0.272	20	
Toluene	0.0881	0.00108	"	0.108	0.000645	81.3	80-120	1.61	20	
Ethylbenzene	0.0815	0.00108	"	0.108	ND	75.7	80-120	2.88	20	QM-07
Xylene (p/m)	0.168	0.00215	"	0.215	ND	78.2	80-120	2.21	20	QM-07
Xylene (o)	0.0693	0.00108	"	0.108	ND	64.5	80-120	1.93	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.116		"	0.129		89.7	80-120			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.129		101	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

Organics by GC - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P110904 - TX 1005

Blank (P110904-BLK1)

Prepared & Analyzed: 09/09/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	94.1		"	100		94.1	70-130			
Surrogate: o-Terphenyl	49.0		"	50.0		98.0	70-130			

LCS (P110904-BS1)

Prepared & Analyzed: 09/09/21

C6-C12	902	25.0	mg/kg wet	1000		90.2	75-125			
>C12-C28	839	25.0	"	1000		83.9	75-125			
Surrogate: 1-Chlorooctane	96.8		"	100		96.8	70-130			
Surrogate: o-Terphenyl	54.5		"	50.0		109	70-130			

LCS Dup (P110904-BSD1)

Prepared & Analyzed: 09/09/21

C6-C12	899	25.0	mg/kg wet	1000		89.9	75-125	0.357	20	
>C12-C28	833	25.0	"	1000		83.3	75-125	0.684	20	
Surrogate: 1-Chlorooctane	96.4		"	100		96.4	70-130			
Surrogate: o-Terphenyl	50.1		"	50.0		100	70-130			

Calibration Check (P110904-CCV1)

Prepared & Analyzed: 09/09/21

C6-C12	443	25.0	mg/kg wet	500		88.5	85-115			
>C12-C28	477	25.0	"	500		95.4	85-115			
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	53.3		"	50.0		107	70-130			

Calibration Check (P110904-CCV2)

Prepared & Analyzed: 09/09/21

C6-C12	431	25.0	mg/kg wet	500		86.2	85-115			
>C12-C28	448	25.0	"	500		89.7	85-115			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	50.0		"	50.0		99.9	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

Organics by GC - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P110904 - TX 1005

Calibration Check (P110904-CCV3)

Prepared & Analyzed: 09/09/21

C6-C12	437	25.0	mg/kg wet	500		87.3	85-115			
>C12-C28	457	25.0	"	500		91.5	85-115			
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	51.2		"	50.0		102	70-130			

Matrix Spike (P110904-MS1)

Source: 1109001-09

Prepared & Analyzed: 09/09/21

C6-C12	808	26.9	mg/kg dry	1080	ND	75.1	75-125			
>C12-C28	892	26.9	"	1080	17.3	81.3	75-125			
Surrogate: 1-Chlorooctane	125		"	108		116	70-130			
Surrogate: o-Terphenyl	46.7		"	53.8		86.8	70-130			

Matrix Spike Dup (P110904-MSD1)

Source: 1109001-09

Prepared & Analyzed: 09/09/21

C6-C12	829	26.9	mg/kg dry	1080	ND	77.1	75-125	2.55	20	
>C12-C28	909	26.9	"	1080	17.3	82.9	75-125	1.95	20	
Surrogate: 1-Chlorooctane	126		"	108		117	70-130			
Surrogate: o-Terphenyl	47.7		"	53.8		88.7	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P110905 - *** DEFAULT PREP ***										
Blank (P110905-BLK1) Prepared & Analyzed: 09/09/21										
Chloride	ND	0.500	mg/kg wet							
LCS (P110905-BS1) Prepared & Analyzed: 09/09/21										
Chloride	403	0.500	mg/kg wet	400		101	90-110			
LCS Dup (P110905-BSD1) Prepared & Analyzed: 09/09/21										
Chloride	397	0.500	mg/kg wet	400		99.2	90-110	1.57	10	
Calibration Blank (P110905-CCB1) Prepared & Analyzed: 09/09/21										
Chloride	0.00		mg/kg wet							
Calibration Check (P110905-CCV1) Prepared & Analyzed: 09/09/21										
Chloride	19.4		mg/kg	20.0		96.8	90-110			
Calibration Check (P110905-CCV2) Prepared & Analyzed: 09/09/21										
Chloride	20.0		mg/kg	20.0		100	90-110			
Matrix Spike (P110905-MS1) Source: 1109001-01 Prepared & Analyzed: 09/09/21										
Chloride	537	0.526	mg/kg dry	526	17.1	98.8	80-120			
Matrix Spike Dup (P110905-MSD1) Source: 1109001-01 Prepared & Analyzed: 09/09/21										
Chloride	539	0.526	mg/kg dry	526	17.1	99.2	80-120	0.438	20	
Batch P111006 - *** DEFAULT PREP ***										
Blank (P111006-BLK1) Prepared & Analyzed: 09/10/21										
% Moisture	ND	0.1	%							

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Red Hills Unit 003
 Project Number: [none]
 Project Manager: Hank W McConnell

**General Chemistry Parameters by EPA / Standard Methods - Quality Control
 Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P111006 - * DEFAULT PREP *****

Blank (P111006-BLK2)				Prepared & Analyzed: 09/10/21						
% Moisture	ND	0.1	%							
Duplicate (P111006-DUP1)				Source: 1109007-01 Prepared & Analyzed: 09/10/21						
% Moisture	11.0	0.1	%		10.0			9.52	20	
Duplicate (P111006-DUP2)				Source: 1109009-02 Prepared & Analyzed: 09/10/21						
% Moisture	19.0	0.1	%		20.0			5.13	20	
Duplicate (P111006-DUP3)				Source: 1109009-19 Prepared & Analyzed: 09/10/21						
% Moisture	14.0	0.1	%		10.0			33.3	20	R3

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

Notes and Definitions

- ROI Received on Ice
- R3 The RPD exceeded the acceptance limit due to sample matrix effects.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
- B Analyte is found in the associated blank as well as in the sample (CLP B-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 9/10/2021

Brent Barron, Laboratory Director/Technical Director

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Red Hills Unit 003
Project Number: [none]
Project Manager: Hank W McConnell

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

1E09001

CB CH Ch WCH

CHAIN OF CUSTODY RECORD

APEX

Office Location Midland
505 North Big Spring Stc 301A
Midland, TX 79701

Project Manager H. McConnell

Laboratory: Permian Basin Lab
 Address: 1400 Rankin Hwy
Midland, TX 79701
 Contact: B. Barron
 Phone: _____
 PO/SO #: _____

ANALYSIS REQUESTED

Lab use only
 Due Date: _____

Temp. of coolers when received (C°): 5.04/10
 1 2 3 4 5
60
 Page 1 of 1

Sampler's Name John Faught Sampler's Signature [Signature]

Proj. No. _____ Project Name Red Hills Unit 003 No/Type of Containers 9

PTEx
TPH 600, DRD, MRO
Chlorides

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	9/8/21	1335	X		SP4. 6BH (2)	2'	2'				1		1
S	9/8/21	1510	X		SP1. 1BH (2)	4'	4'				1		2
S	9/8/21	1515	X		SP1. 6BH (2)	4'	4'				1		3
S	9/8/21	1520	X		SP3. 2BH (2)	4'	4'				1		4
S	9/8/21	1525	X		SP3. 3Sw (2)	0'	4'				1		5
S	9/8/21	1528	X		SP5. 3SW (2)	0'	4'				1		6
S	9/8/21	1615	X		SP5. 1Sw (2)	0'	4'				1		7
S	9/8/21	1618	X		SP5. 5BH (2)	2'	2'				1		8
S	9/8/21	1620	X		SP5. 6BH (2)	2'	2'				1		9

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature) <u>[Signature]</u>	Date: <u>9/9/21</u>	Time: <u>0830</u>	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Date: <u>9/9/21</u>	Time: <u>817</u>

NOTES:
 - All times are Mountain Daylight time
 - 24 Hour TAT on all samples
 - Add lluig@cimarex.com to recipient list

Matrix Container: WW - Wastewater, VOA - 40 ml vial, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - Sludge, O - Oil, A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Hank W McConnell
Apex Environmental
505 N. Big Spring Street #301A
Midland, TX 79701

Project: Cimarex Red Hills Unit 3

Project Number: 725070635033

Location: NM

Lab Order Number: 0L21005



NELAP/TCEQ # T104704516-17-8

Report Date: 12/29/20

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP1.1BH @ 3"	0L21005-01	Soil	12/18/20 00:00	12-21-2020 16:34
SP1.2SW @ 3"	0L21005-02	Soil	12/18/20 00:00	12-21-2020 16:34
SP1.3BH @ 3"	0L21005-03	Soil	12/18/20 00:00	12-21-2020 16:34
SP1.4SW @ 3"	0L21005-04	Soil	12/18/20 00:00	12-21-2020 16:34
SP1.5SW @ 3"	0L21005-05	Soil	12/18/20 00:00	12-21-2020 16:34
SP1.6BH @ 3"	0L21005-06	Soil	12/18/20 00:00	12-21-2020 16:34
SP1.7SW @ 3"	0L21005-07	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.1SW @ 3"	0L21005-08	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.2BH @ 3"	0L21005-09	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.3BH @ 3"	0L21005-10	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.4SW @ 3"	0L21005-11	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.5SW @ 3"	0L21005-12	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.6BH @ 3"	0L21005-13	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.7BH @ 3"	0L21005-14	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.8SW @ 3"	0L21005-15	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.9SW @ 3"	0L21005-16	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.10BH @ 3"	0L21005-17	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.11BH @ 3"	0L21005-18	Soil	12/18/20 00:00	12-21-2020 16:34
SP2.12SW @ 3"	0L21005-19	Soil	12/18/20 00:00	12-21-2020 16:34
SP3.1SW @ 3"	0L21005-20	Soil	12/18/20 00:00	12-21-2020 16:34
SP3.2BH @ 3"	0L21005-21	Soil	12/18/20 00:00	12-21-2020 16:34
SP3.3SW @ 3"	0L21005-22	Soil	12/18/20 00:00	12-21-2020 16:34
SP3.4SW @ 3"	0L21005-23	Soil	12/18/20 00:00	12-21-2020 16:34
SP3.5BH @ 3"	0L21005-24	Soil	12/18/20 00:00	12-21-2020 16:34
SP3.6SW @ 3"	0L21005-25	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.1SW @ 3"	0L21005-26	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.2SW @ 3"	0L21005-27	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.3BH @ 3"	0L21005-28	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.4SW @ 3"	0L21005-29	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.5SW @ 3"	0L21005-30	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.6BH @ 3"	0L21005-31	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.7SW @ 3"	0L21005-32	Soil	12/18/20 00:00	12-21-2020 16:34
SP4.8SW @ 3"	0L21005-33	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.1SW @ 3"	0L21005-34	Soil	12/18/20 00:00	12-21-2020 16:34

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP5.2BH @ 3"	0L21005-35	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.3SW @ 3"	0L21005-36	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.4SW @ 3"	0L21005-37	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.5BH @ 3"	0L21005-38	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.6SW @ 3"	0L21005-39	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.7SW @ 3"	0L21005-40	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.8BH @ 3"	0L21005-41	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.9SW @ 3"	0L21005-42	Soil	12/18/20 00:00	12-21-2020 16:34
SP5.10BH @ 3"	0L21005-43	Soil	12/18/20 00:00	12-21-2020 16:34

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP1.1BH @ 3"
0L21005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.6 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	599	5.00	mg/kg dry	5	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	208	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	208	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP1.2SW @ 3"
0L21005-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.6 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	12.9	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		114 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP1.3BH @ 3"
0L21005-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.6 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	31.9	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	59.3	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	59.3	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP1.4SW @ 3"
0L21005-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.6 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	8.47	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP1.5SW @ 3"
0L21005-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.8 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.23	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		124 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP1.6BH @ 3"
0L21005-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.8 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	12.8	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	215	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		122 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	215	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP1.7SW @ 3"
0L21005-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.2 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	17.8	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		120 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.1SW @ 3"
0L21005-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.1 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	5.93	1.00	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	35.1	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	35.1	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.2BH @ 3"
0L21005-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.0 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	7.88	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		121 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.3BH @ 3"
0L21005-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		89.4 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	16.5	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	25.6	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		123 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	25.6	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.4SW @ 3"
0L21005-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.5 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	15.3	1.02	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	2.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		114 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		124 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.5SW @ 3"
0L21005-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.7 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	7.39	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		120 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.6BH @ 3"
0L21005-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.9 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.33	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		118 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		128 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.7BH @ 3"
0L21005-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.1 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	5.11	1.00	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	30.4	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		115 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		125 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	30.4	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.8SW @ 3"
0L21005-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.6 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P0L2207	12/22/20	12/22/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	8.36	1.01	mg/kg dry	1	P0L2203	12/22/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	46.9	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		119 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		128 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	46.9	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP2.9SW @ 3"
0L21005-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		86.8 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	9.14	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	45.4	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		122 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		131 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	45.4	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.10BH @ 3"**0L21005-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.**BTEX by 8021B**

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.1 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.24	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		123 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		132 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP2.11BH @ 3"
0L21005-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.4 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	9.29	1.00	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		119 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		130 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP2.12SW @ 3"
0L21005-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.0 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.39	1.00	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	32.6	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		119 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		129 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	32.6	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP3.1SW @ 3"
0L21005-20 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.5 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P0L2207	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	23.1	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		122 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		132 %	70-130		P0L2204	12/22/20	12/24/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP3.2BH @ 3"
0L21005-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		85.4 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	10.3	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	306	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		120 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		131 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	306	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP3.3SW @ 3"
0L21005-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		98.8 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		86.1 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.54	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	386	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		122 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	386	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP3.4SW @ 3"
0L21005-23 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.2 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.5 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	12.2	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	25.4	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		119 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	25.4	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP3.5BH @ 3"
0L21005-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		85.8 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	8.35	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	49.8	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		123 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	49.8	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP3.6SW @ 3"
0L21005-25 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.9 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.01	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		121 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP4.1SW @ 3"
0L21005-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.3 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	17.2	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP4.2SW @ 3"
0L21005-27 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.1 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	8.47	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	35.3	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	35.3	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP4.3BH @ 3"
0L21005-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.9 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	20.8	1.00	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	93.5	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	93.5	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP4.4SW @ 3"
0L21005-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.2 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	12.6	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP4.5SW @ 3"
0L21005-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		100 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.6 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	8.91	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP4.6BH @ 3"
0L21005-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.6 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.7 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	19.3	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	1550	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		121 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1550	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP4.7SW @ 3"
0L21005-32 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		98.9 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		89.9 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	64.0	1.00	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP4.8SW @ 3"
0L21005-33 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.7 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.9 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	18.4	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	35.3	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		116 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	35.3	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP5.1SW @ 3"
0L21005-34 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.7 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	4.74	1.01	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	483	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		120 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	483	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP5.2BH @ 3"
0L21005-35 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.1 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	4.92	1.02	mg/kg dry	1	P0L2301	12/23/20	12/23/20	EPA 300.0	
% Moisture	2.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	93.8	25.5	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	93.8	25.5	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP5.3SW @ 3"
0L21005-36 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.2 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	98.8	1.01	mg/kg dry	1	P0L2302	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	122	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	122	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP5.4SW @ 3"
0L21005-37 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.9 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	12.2	1.00	mg/kg dry	1	P0L2302	12/23/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP5.5BH @ 3"
0L21005-38 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.3 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		112 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	1.65	1.02	mg/kg dry	1	P0L2302	12/23/20	12/23/20	EPA 300.0	
% Moisture	2.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	146	25.5	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	146	25.5	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP5.6SW @ 3"
0L21005-39 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.6 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	227	1.01	mg/kg dry	1	P0L2302	12/23/20	12/23/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		118 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		126 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP5.7SW @ 3"
0L21005-40 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.7 %	80-120		P0L2208	12/22/20	12/23/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.28	1.00	mg/kg dry	1	P0L2302	12/23/20	12/23/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: 1-Chlorooctane		129 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	
Surrogate: o-Terphenyl		141 %	70-130		P0L2205	12/22/20	12/24/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	12/22/20	12/24/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

SP5.8BH @ 3"
0L21005-41 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P0L2306	12/23/20	12/24/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.7 %	80-120		P0L2306	12/23/20	12/24/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	4.74	1.04	mg/kg dry	1	P0L2302	12/23/20	12/23/20	EPA 300.0	
% Moisture	4.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
>C12-C28	784	26.0	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		P0L2308	12/23/20	12/26/20	TPH 8015M	
Surrogate: o-Terphenyl		131 %	70-130		P0L2308	12/23/20	12/26/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	784	26.0	mg/kg dry	1	[CALC]	12/23/20	12/26/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP5.9SW @ 3"
0L21005-42 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.8 %	80-120		P0L2306	12/23/20	12/24/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.3 %	80-120		P0L2306	12/23/20	12/24/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	14.0	1.02	mg/kg dry	1	P0L2302	12/23/20	12/24/20	EPA 300.0	
% Moisture	2.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
Surrogate: 1-Chlorooctane		120 %	70-130		P0L2308	12/23/20	12/26/20	TPH 8015M	
Surrogate: o-Terphenyl		134 %	70-130		P0L2308	12/23/20	12/26/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	12/23/20	12/26/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

SP5.10BH @ 3"
0L21005-43 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P0L2306	12/23/20	12/24/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.2 %	80-120		P0L2306	12/23/20	12/24/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	80-120		P0L2306	12/23/20	12/24/20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.77	1.01	mg/kg dry	1	P0L2302	12/23/20	12/24/20	EPA 300.0	
% Moisture	1.0	0.1	%	1	P0L2303	12/23/20	12/23/20	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0L2308	12/23/20	12/26/20	TPH 8015M	
Surrogate: 1-Chlorooctane		124 %	70-130		P0L2308	12/23/20	12/26/20	TPH 8015M	
Surrogate: o-Terphenyl		138 %	70-130		P0L2308	12/23/20	12/26/20	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/23/20	12/26/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2207 - General Preparation (GC)

Blank (P0L2207-BLK1) Prepared & Analyzed: 12/22/20										
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.2	80-120			

LCS (P0L2207-BS1) Prepared & Analyzed: 12/22/20										
Benzene	0.111	0.00100	mg/kg wet	0.100		111	70-130			
Toluene	0.103	0.00100	"	0.100		103	70-130			
Ethylbenzene	0.106	0.00100	"	0.100		106	70-130			
Xylene (p/m)	0.204	0.00200	"	0.200		102	70-130			
Xylene (o)	0.101	0.00100	"	0.100		101	70-130			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.2	80-120			

LCS Dup (P0L2207-BSD1) Prepared & Analyzed: 12/22/20										
Benzene	0.111	0.00100	mg/kg wet	0.100		111	70-130	0.415	20	
Toluene	0.108	0.00100	"	0.100		108	70-130	4.64	20	
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130	4.17	20	
Xylene (p/m)	0.214	0.00200	"	0.200		107	70-130	5.17	20	
Xylene (o)	0.105	0.00100	"	0.100		105	70-130	3.54	20	
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.9	80-120			

Calibration Check (P0L2207-CCV1) Prepared & Analyzed: 12/22/20										
Benzene	0.107	0.00100	mg/kg wet	0.100		107	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.220	0.00200	"	0.200		110	80-120			
Xylene (o)	0.108	0.00100	"	0.100		108	80-120			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	75-125			
Surrogate: 4-Bromofluorobenzene	0.127		"	0.120		106	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2207 - General Preparation (GC)

Calibration Check (P0L2207-CCV2)

Prepared & Analyzed: 12/22/20

Benzene	0.115	0.00100	mg/kg wet	0.100		115	80-120			
Toluene	0.107	0.00100	"	0.100		107	80-120			
Ethylbenzene	0.108	0.00100	"	0.100		108	80-120			
Xylene (p/m)	0.192	0.00200	"	0.200		96.1	80-120			
Xylene (o)	0.0966	0.00100	"	0.100		96.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		108	75-125			

Calibration Check (P0L2207-CCV3)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.117	0.00100	mg/kg wet	0.100		117	80-120			
Toluene	0.110	0.00100	"	0.100		110	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		97.1	80-120			
Xylene (o)	0.0986	0.00100	"	0.100		98.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.7	75-125			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	75-125			

Matrix Spike (P0L2207-MS1)

Source: 0L21005-01

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.0726	0.00100	mg/kg dry	0.100	ND	72.6	80-120			QM-07
Toluene	0.0428	0.00100	"	0.100	ND	42.8	80-120			QM-07
Ethylbenzene	0.0399	0.00100	"	0.100	ND	39.9	80-120			QM-07
Xylene (p/m)	0.0587	0.00200	"	0.200	ND	29.3	80-120			QM-07
Xylene (o)	0.0311	0.00100	"	0.100	ND	31.1	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.4	80-120			

Matrix Spike Dup (P0L2207-MSD1)

Source: 0L21005-01

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.0703	0.00100	mg/kg dry	0.100	ND	70.3	80-120	3.18	20	QM-07
Toluene	0.0489	0.00100	"	0.100	ND	48.9	80-120	13.4	20	QM-07
Ethylbenzene	0.0521	0.00100	"	0.100	ND	52.1	80-120	26.5	20	QM-07
Xylene (p/m)	0.0769	0.00200	"	0.200	ND	38.4	80-120	26.8	20	QM-07
Xylene (o)	0.0403	0.00100	"	0.100	ND	40.3	80-120	25.8	20	QM-07
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.4	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2208 - General Preparation (GC)

Blank (P0L2208-BLK1)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.5	80-120			

LCS (P0L2208-BS1)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.110	0.00100	mg/kg wet	0.100		110	70-130			
Toluene	0.0987	0.00100	"	0.100		98.7	70-130			
Ethylbenzene	0.113	0.00100	"	0.100		113	70-130			
Xylene (p/m)	0.174	0.00200	"	0.200		86.9	70-130			
Xylene (o)	0.0873	0.00100	"	0.100		87.3	70-130			
Surrogate: 1,4-Difluorobenzene	0.128		"	0.120		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.4	80-120			

LCS Dup (P0L2208-BSD1)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.106	0.00100	mg/kg wet	0.100		106	70-130	3.38	20	
Toluene	0.0957	0.00100	"	0.100		95.7	70-130	3.09	20	
Ethylbenzene	0.110	0.00100	"	0.100		110	70-130	2.54	20	
Xylene (p/m)	0.170	0.00200	"	0.200		85.1	70-130	2.04	20	
Xylene (o)	0.0835	0.00100	"	0.100		83.5	70-130	4.44	20	
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.4	80-120			

Calibration Check (P0L2208-CCV1)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.117	0.00100	mg/kg wet	0.100		117	80-120			
Toluene	0.110	0.00100	"	0.100		110	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		97.1	80-120			
Xylene (o)	0.0986	0.00100	"	0.100		98.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.7	75-125			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2208 - General Preparation (GC)

Calibration Check (P0L2208-CCV2)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.115	0.00100	mg/kg wet	0.100		115	80-120			
Toluene	0.113	0.00100	"	0.100		113	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.213	0.00200	"	0.200		107	80-120			
Xylene (o)	0.108	0.00100	"	0.100		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		99.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	75-125			

Calibration Check (P0L2208-CCV3)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.120	0.00100	mg/kg wet	0.100		120	80-120			
Toluene	0.113	0.00100	"	0.100		113	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.198	0.00200	"	0.200		98.8	80-120			
Xylene (o)	0.0998	0.00100	"	0.100		99.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.133		"	0.120		111	75-125			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.3	75-125			

Matrix Spike (P0L2208-MS1)

Source: 0L21005-21

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.0733	0.00101	mg/kg dry	0.101	ND	72.5	80-120			QM-07
Toluene	0.0470	0.00101	"	0.101	ND	46.6	80-120			QM-07
Ethylbenzene	0.0410	0.00101	"	0.101	ND	40.6	80-120			QM-07
Xylene (p/m)	0.0494	0.00202	"	0.202	ND	24.4	80-120			QM-07
Xylene (o)	0.0270	0.00101	"	0.101	ND	26.7	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.130		"	0.121		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.121		93.8	80-120			

Matrix Spike Dup (P0L2208-MSD1)

Source: 0L21005-21

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.0733	0.00101	mg/kg dry	0.101	ND	72.6	80-120	0.0689	20	QM-07
Toluene	0.0456	0.00101	"	0.101	ND	45.2	80-120	3.07	20	QM-07
Ethylbenzene	0.0410	0.00101	"	0.101	ND	40.6	80-120	0.0247	20	QM-07
Xylene (p/m)	0.0496	0.00202	"	0.202	ND	24.5	80-120	0.470	20	QM-07
Xylene (o)	0.0272	0.00101	"	0.101	ND	26.9	80-120	0.932	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.121		"	0.121		99.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.121		108	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2306 - General Preparation (GC)**Blank (P0L2306-BLK1)**

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		99.8	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.3	80-120			

LCS (P0L2306-BS1)

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	0.107	0.00100	mg/kg wet	0.100		107	70-130			
Toluene	0.0960	0.00100	"	0.100		96.0	70-130			
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130			
Xylene (p/m)	0.176	0.00200	"	0.200		88.1	70-130			
Xylene (o)	0.0844	0.00100	"	0.100		84.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	80-120			

LCS Dup (P0L2306-BSD1)

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	0.117	0.00100	mg/kg wet	0.100		117	70-130	9.01	20	
Toluene	0.105	0.00100	"	0.100		105	70-130	9.34	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	70-130	7.05	20	
Xylene (p/m)	0.196	0.00200	"	0.200		98.0	70-130	10.6	20	
Xylene (o)	0.0940	0.00100	"	0.100		94.0	70-130	10.7	20	
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.5	80-120			

Calibration Check (P0L2306-CCV1)

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	0.113	0.00100	mg/kg wet	0.100		113	80-120			
Toluene	0.101	0.00100	"	0.100		101	80-120			
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120			
Xylene (p/m)	0.187	0.00200	"	0.200		93.6	80-120			
Xylene (o)	0.0919	0.00100	"	0.100		91.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		108	75-125			

Permian Basin Environmental Lab, L.P.

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Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2306 - General Preparation (GC)**Calibration Check (P0L2306-CCV2)**

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.110	0.00100	"	0.100		110	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.196	0.00200	"	0.200		98.0	80-120			
Xylene (o)	0.0966	0.00100	"	0.100		96.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.124		"	0.120		104	75-125			

Calibration Check (P0L2306-CCV3)

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.115	0.00100	"	0.100		115	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.214	0.00200	"	0.200		107	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.120		101	75-125			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.0	75-125			

Matrix Spike (P0L2306-MS1)

Source: 0L21005-41

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	0.0822	0.00104	mg/kg dry	0.104	ND	78.9	80-120			QM-07
Toluene	0.0580	0.00104	"	0.104	ND	55.7	80-120			QM-07
Ethylbenzene	0.0485	0.00104	"	0.104	ND	46.5	80-120			QM-07
Xylene (p/m)	0.0690	0.00208	"	0.208	ND	33.1	80-120			QM-07
Xylene (o)	0.0352	0.00104	"	0.104	ND	33.8	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.130		"	0.125		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.121		"	0.125		96.6	80-120			

Matrix Spike Dup (P0L2306-MSD1)

Source: 0L21005-41

Prepared: 12/23/20 Analyzed: 12/24/20

Benzene	0.0858	0.00104	mg/kg dry	0.104	ND	82.3	80-120	4.29	20	
Toluene	0.0614	0.00104	"	0.104	ND	59.0	80-120	5.76	20	
Ethylbenzene	0.0494	0.00104	"	0.104	ND	47.5	80-120	1.98	20	
Xylene (p/m)	0.0717	0.00208	"	0.208	ND	34.4	80-120	3.89	20	
Xylene (o)	0.0361	0.00104	"	0.104	ND	34.6	80-120	2.25	20	
Surrogate: 1,4-Difluorobenzene	0.136		"	0.125		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.121		"	0.125		97.1	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0L2203 - *** DEFAULT PREP ***										
Blank (P0L2203-BLK1) Prepared & Analyzed: 12/22/20										
Chloride	ND	1.00	mg/kg wet							
LCS (P0L2203-BS1) Prepared & Analyzed: 12/22/20										
Chloride	431	1.00	mg/kg wet	400		108	90-110			
LCS Dup (P0L2203-BSD1) Prepared & Analyzed: 12/22/20										
Chloride	432	1.00	mg/kg wet	400		108	90-110	0.271	20	
Calibration Check (P0L2203-CCV1) Prepared & Analyzed: 12/22/20										
Chloride	21.9		mg/kg	20.0		109	90-110			
Calibration Check (P0L2203-CCV2) Prepared: 12/22/20 Analyzed: 12/23/20										
Chloride	22.0		mg/kg	20.0		110	90-110			
Calibration Check (P0L2203-CCV3) Prepared: 12/22/20 Analyzed: 12/23/20										
Chloride	21.5		mg/kg	20.0		108	90-110			
Matrix Spike (P0L2203-MS1) Source: 0L18014-16 Prepared & Analyzed: 12/22/20										
Chloride	762	1.04	mg/kg dry	521	35.2	140	80-120			QM-05
Matrix Spike (P0L2203-MS2) Source: 0L21005-06 Prepared: 12/22/20 Analyzed: 12/23/20										
Chloride	689	1.01	mg/kg dry	505	12.8	134	80-120			QM-05
Matrix Spike Dup (P0L2203-MSD1) Source: 0L18014-16 Prepared: 12/22/20 Analyzed: 12/23/20										
Chloride	612	1.04	mg/kg dry	521	35.2	111	80-120	21.8	20	QM-05
Matrix Spike Dup (P0L2203-MSD2) Source: 0L21005-06 Prepared: 12/22/20 Analyzed: 12/23/20										
Chloride	541	1.01	mg/kg dry	505	12.8	105	80-120	24.0	20	QM-05

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Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0L2301 - *** DEFAULT PREP ***										
Blank (P0L2301-BLK1) Prepared & Analyzed: 12/23/20										
Chloride	ND	1.00	mg/kg wet							
LCS (P0L2301-BS1) Prepared & Analyzed: 12/23/20										
Chloride	432	1.00	mg/kg wet	400		108	90-110			
LCS Dup (P0L2301-BSD1) Prepared & Analyzed: 12/23/20										
Chloride	435	1.00	mg/kg wet	400		109	90-110	0.600	20	
Calibration Check (P0L2301-CCV1) Prepared & Analyzed: 12/23/20										
Chloride	21.3		mg/kg	20.0		107	90-110			
Calibration Check (P0L2301-CCV2) Prepared & Analyzed: 12/23/20										
Chloride	21.4		mg/kg	20.0		107	90-110			
Calibration Check (P0L2301-CCV3) Prepared & Analyzed: 12/23/20										
Chloride	22.0		mg/kg	20.0		110	90-110			
Matrix Spike (P0L2301-MS1) Source: 0L21005-16 Prepared & Analyzed: 12/23/20										
Chloride	530	1.01	mg/kg dry	505	9.14	103	80-120			
Matrix Spike (P0L2301-MS2) Source: 0L21005-26 Prepared & Analyzed: 12/23/20										
Chloride	547	1.01	mg/kg dry	505	17.2	105	80-120			
Matrix Spike Dup (P0L2301-MSD1) Source: 0L21005-16 Prepared & Analyzed: 12/23/20										
Chloride	571	1.01	mg/kg dry	505	9.14	111	80-120	7.28	20	
Matrix Spike Dup (P0L2301-MSD2) Source: 0L21005-26 Prepared & Analyzed: 12/23/20										
Chloride	539	1.01	mg/kg dry	505	17.2	103	80-120	1.47	20	

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Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0L2302 - *** DEFAULT PREP ***										
Blank (P0L2302-BLK1) Prepared & Analyzed: 12/23/20										
Chloride	ND	1.00	mg/kg wet							
LCS (P0L2302-BS1) Prepared & Analyzed: 12/23/20										
Chloride	436	1.00	mg/kg wet	400		109	90-110			
LCS Dup (P0L2302-BSD1) Prepared & Analyzed: 12/23/20										
Chloride	431	1.00	mg/kg wet	400		108	90-110	1.28	20	
Calibration Check (P0L2302-CCV1) Prepared & Analyzed: 12/23/20										
Chloride	22.0		mg/kg	20.0		110	90-110			
Calibration Check (P0L2302-CCV2) Prepared: 12/23/20 Analyzed: 12/24/20										
Chloride	21.6		mg/kg	20.0		108	90-110			
Calibration Check (P0L2302-CCV3) Prepared: 12/23/20 Analyzed: 12/24/20										
Chloride	21.2		mg/kg	20.0		106	90-110			
Matrix Spike (P0L2302-MS1) Source: 0L21005-36 Prepared & Analyzed: 12/23/20										
Chloride	622	1.01	mg/kg dry	505	98.8	104	80-120			
Matrix Spike (P0L2302-MS2) Source: 0L23005-02 Prepared: 12/23/20 Analyzed: 12/28/20										
Chloride	14300	28.7	mg/kg dry	2870	10400	137	80-120			QM-05
Matrix Spike Dup (P0L2302-MSD1) Source: 0L21005-36 Prepared & Analyzed: 12/23/20										
Chloride	604	1.01	mg/kg dry	505	98.8	100	80-120	2.89	20	
Matrix Spike Dup (P0L2302-MSD2) Source: 0L23005-02 Prepared: 12/23/20 Analyzed: 12/28/20										
Chloride	13900	28.7	mg/kg dry	2870	10400	123	80-120	2.87	20	QM-05

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 Project Number: 725070635033
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Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0L2303 - *** DEFAULT PREP ***										
Blank (P0L2303-BLK1) Prepared & Analyzed: 12/23/20										
% Moisture	ND	0.1	%							
Blank (P0L2303-BLK2) Prepared & Analyzed: 12/23/20										
% Moisture	ND	0.1	%							
Duplicate (P0L2303-DUP1) Source: 0L21005-10 Prepared & Analyzed: 12/23/20										
% Moisture	2.0	0.1	%		1.0			66.7	20	
Duplicate (P0L2303-DUP2) Source: 0L21005-20 Prepared & Analyzed: 12/23/20										
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P0L2303-DUP3) Source: 0L21005-35 Prepared & Analyzed: 12/23/20										
% Moisture	2.0	0.1	%		2.0			0.00	20	
Duplicate (P0L2303-DUP4) Source: 0L22003-02 Prepared & Analyzed: 12/23/20										
% Moisture	1.0	0.1	%		1.0			0.00	20	

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Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0L2204 - TX 1005										
Blank (P0L2204-BLK1)										
Prepared: 12/22/20 Analyzed: 12/24/20										
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	61.3		"	50.0		123	70-130			
LCS (P0L2204-BS1)										
Prepared: 12/22/20 Analyzed: 12/24/20										
C6-C12	965	25.0	mg/kg wet	1000		96.5	75-125			
>C12-C28	1040	25.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	62.8		"	50.0		126	70-130			
LCS Dup (P0L2204-BSD1)										
Prepared: 12/22/20 Analyzed: 12/24/20										
C6-C12	969	25.0	mg/kg wet	1000		96.9	75-125	0.476	20	
>C12-C28	1020	25.0	"	1000		102	75-125	1.55	20	
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	64.3		"	50.0		129	70-130			
Calibration Check (P0L2204-CCV1)										
Prepared: 12/22/20 Analyzed: 12/24/20										
C6-C12	477	25.0	mg/kg wet	500		95.3	85-115			
>C12-C28	505	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	127		"	100		127	70-130			
Surrogate: o-Terphenyl	61.1		"	50.0		122	70-130			
Calibration Check (P0L2204-CCV2)										
Prepared: 12/22/20 Analyzed: 12/24/20										
C6-C12	514	25.0	mg/kg wet	500		103	85-115			
>C12-C28	542	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	63.5		"	50.0		127	70-130			

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Apex Environmental
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Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2204 - TX 1005

Matrix Spike (P0L2204-MS1)		Source: 0L21005-20		Prepared: 12/22/20		Analyzed: 12/24/20				
C6-C12	1180	25.3	mg/kg dry	1010	ND	117	75-125			
>C12-C28	1280	25.3	"	1010	11.4	126	75-125			QM-05
Surrogate: 1-Chlorooctane	120		"	101		119	70-130			
Surrogate: o-Terphenyl	67.0		"	50.5		133	70-130			S-GC

Matrix Spike Dup (P0L2204-MSD1)		Source: 0L21005-20		Prepared: 12/22/20		Analyzed: 12/24/20				
C6-C12	1150	25.3	mg/kg dry	1010	ND	114	75-125	2.25	20	
>C12-C28	1240	25.3	"	1010	11.4	121	75-125	3.77	20	
Surrogate: 1-Chlorooctane	115		"	101		114	70-130			
Surrogate: o-Terphenyl	59.4		"	50.5		118	70-130			

Batch P0L2205 - TX 1005

Blank (P0L2205-BLK1)				Prepared: 12/22/20		Analyzed: 12/24/20				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	64.2		"	50.0		128	70-130			

LCS (P0L2205-BS1)				Prepared: 12/22/20		Analyzed: 12/24/20				
C6-C12	1040	25.0	mg/kg wet	1000		104	75-125			
>C12-C28	1110	25.0	"	1000		111	75-125			
Surrogate: 1-Chlorooctane	126		"	100		126	70-130			
Surrogate: o-Terphenyl	65.0		"	50.0		130	70-130			

LCS Dup (P0L2205-BSD1)				Prepared: 12/22/20		Analyzed: 12/24/20				
C6-C12	1040	25.0	mg/kg wet	1000		104	75-125	0.429	20	
>C12-C28	1110	25.0	"	1000		111	75-125	0.296	20	
Surrogate: 1-Chlorooctane	127		"	100		127	70-130			
Surrogate: o-Terphenyl	64.8		"	50.0		130	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0L2205 - TX 1005										
Calibration Check (P0L2205-CCV1)										
				Prepared: 12/22/20 Analyzed: 12/24/20						
C6-C12	531	25.0	mg/kg wet	500		106	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	64.9		"	50.0		130	70-130			
Calibration Check (P0L2205-CCV2)										
				Prepared: 12/22/20 Analyzed: 12/24/20						
C6-C12	480	25.0	mg/kg wet	500		96.1	85-115			
>C12-C28	513	25.0	"	500		103	85-115			
Surrogate: 1-Chlorooctane	129		"	100		129	70-130			
Surrogate: o-Terphenyl	60.5		"	50.0		121	70-130			
Calibration Check (P0L2205-CCV3)										
				Prepared: 12/22/20 Analyzed: 12/24/20						
C6-C12	486	25.0	mg/kg wet	500		97.2	85-115			
>C12-C28	524	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	129		"	100		129	70-130			
Surrogate: o-Terphenyl	62.1		"	50.0		124	70-130			
Matrix Spike (P0L2205-MS1)										
		Source: 0L21005-40			Prepared: 12/22/20 Analyzed: 12/24/20					
C6-C12	1080	25.0	mg/kg dry	1000	10.2	107	75-125			
>C12-C28	1180	25.0	"	1000	9.99	117	75-125			
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	64.2		"	50.0		128	70-130			
Matrix Spike Dup (P0L2205-MSD1)										
		Source: 0L21005-40			Prepared: 12/22/20 Analyzed: 12/24/20					
C6-C12	1020	25.0	mg/kg dry	1000	10.2	101	75-125	5.69	20	
>C12-C28	1140	25.0	"	1000	9.99	113	75-125	4.08	20	
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	55.8		"	50.0		112	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0L2308 - TX 1005										
Blank (P0L2308-BLK1)										
Prepared: 12/23/20 Analyzed: 12/26/20										
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	63.5		"	50.0		127	70-130			
LCS (P0L2308-BS1)										
Prepared: 12/23/20 Analyzed: 12/26/20										
C6-C12	1020	25.0	mg/kg wet	1000		102	75-125			
>C12-C28	1080	25.0	"	1000		108	75-125			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	64.0		"	50.0		128	70-130			
LCS Dup (P0L2308-BSD1)										
Prepared: 12/23/20 Analyzed: 12/26/20										
C6-C12	1030	25.0	mg/kg wet	1000		103	75-125	1.09	20	
>C12-C28	1100	25.0	"	1000		110	75-125	1.64	20	
Surrogate: 1-Chlorooctane	125		"	100		125	70-130			
Surrogate: o-Terphenyl	65.1		"	50.0		130	70-130			
Calibration Check (P0L2308-CCV1)										
Prepared: 12/23/20 Analyzed: 12/26/20										
C6-C12	540	25.0	mg/kg wet	500		108	85-115			
>C12-C28	542	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	122		"	100		122	70-130			
Surrogate: o-Terphenyl	65.1		"	50.0		130	70-130			
Calibration Check (P0L2308-CCV2)										
Prepared: 12/23/20 Analyzed: 12/26/20										
C6-C12	470	25.0	mg/kg wet	500		94.0	85-115			
>C12-C28	530	25.0	"	500		106	85-115			
Surrogate: 1-Chlorooctane	126		"	100		126	70-130			
Surrogate: o-Terphenyl	60.4		"	50.0		121	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0L2308 - TX 1005

Matrix Spike (P0L2308-MS1)

Source: 0L23005-05

Prepared: 12/23/20 Analyzed: 12/26/20

C6-C12	938	26.9	mg/kg dry	1080	11.2	86.2	75-125			
>C12-C28	1020	26.9	"	1080	18.4	92.7	75-125			
Surrogate: 1-Chlorooctane	117		"	108		108	70-130			
Surrogate: o-Terphenyl	63.9		"	53.8		119	70-130			

Matrix Spike Dup (P0L2308-MSD1)

Source: 0L23005-05

Prepared: 12/23/20 Analyzed: 12/26/20

C6-C12	961	26.9	mg/kg dry	1080	11.2	88.3	75-125	2.42	20	
>C12-C28	1030	26.9	"	1080	18.4	93.8	75-125	1.10	20	
Surrogate: 1-Chlorooctane	119		"	108		110	70-130			
Surrogate: o-Terphenyl	64.5		"	53.8		120	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Apex Environmental
 505 N. Big Spring Street #301A
 Midland TX, 79701

Project: Cimarex Red Hills Unit 3
 Project Number: 725070635033
 Project Manager: Hank W McConnell

Fax:

Notes and Definitions

- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- ROI Received on Ice
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:  Date: 12/29/2020

Brent Barron, Laboratory Director/Technical Director

Apex Environmental
505 N. Big Spring Street #301A
Midland TX, 79701

Project: Cimarex Red Hills Unit 3
Project Number: 725070635033
Project Manager: Hank W McConnell

Fax:

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

OL 21005

CHAIN OF CUSTODY RECORD



Office Location Midland, TX
505 N. Big Spring St. Ste 301A
Midland, TX 79701

Project Manager Hank W. McInnell

Laboratory: Permian Basin Env Lab
 Address: 1400 Rankin Hwy,
Midland, TX 79701
 Contact: _____
 Phone: 432-686-7235
 PO/SO #: 725070635033

ANALYSIS REQUESTED

Lab use only
 Due Date: _____
 Temp. of coolers when received (C°): 5.4
6.4
CFH 2

1	2	3	4	5
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Page 1 of 5

Sampler's Name Cotton Bickerstaff Sampler's Signature [Signature]

Proj. No. 725070635033 Project Name Red Hills Unit 3 No/Type of Containers 10

Matrix	Date	Time	CoEd	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
1 S	12/18/20		X		SP1.1BH	0"	3"				1		X X X
2 S	12/18/20		X		SP1.2SW	0"	3"				1		X X X
3 S	12/18/20		X		SP1.3BH	0"	3"				1		X X X
4 S	12/18/20		X		SP1.4SW	0"	3"				1		X X X
5 S	12/18/20		X		SP1.5SW	0"	3"				1		X X X
6 S	12/18/20		X		SP1.6BH	0"	3"				1		X X X
7 S	12/18/20		X		SP1.7SW	0"	3"				1		X X X
8 S	12/18/20		X		SP2.1SW	0"	3"				1		X X X
9 S	12/18/20		X		SP2.2BH	0"	3"				1		X X X
10 S	12/18/20		X		SP2.3BH	0"	3"				1		X X X

BTEX
 Chlorides
 TPH GRU DRU MRU

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature) <u>[Signature]</u>	Date: <u>12/21/20</u>	Time: <u>16:34</u>	Received by (Signature) <u>[Signature]</u>	Date: <u>12/21/20</u>	Time: <u>16:34</u>
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:

NOTES:
Bill direct to Cinerex

Matrix Container: WW - Wastewater, VOA - 40 ml vial
 W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - Sludge, O - Oil
 AG - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

0121005

CHAIN OF CUSTODY RECORD

APEX
 Office Location Midland, TX
505 N. Big Spring St. Ste 301A
Midland, TX 79701
 Project Manager Hank W. McInnell

Laboratory: Permian Basin Env. Lab
 Address: 1400 Rankin Hwy.
Midland, TX 79701
 Contact: _____
 Phone: 432-696-7235
 PO/SO #: 725070635033

ANALYSIS REQUESTED

Lab use only
 Due Date: _____
 Temp. of coolers when received (C°): 5.4
 Page 2 of 5

Sampler's Name: Colton Bickertoff Sampler's Signature: [Signature]

Proj. No.: 725070635033 Project Name: Red Hills Unit 3 No/Type of Containers: 10

Matrix	Date	Time	COED	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	12/18/20		X		SP2.4SW	0"	3"				1		X X X
S	12/18/20		X		SP2.5SW	0"	3"				1		X X X
S	12/18/20		X		SP2.6BH	0"	3"				1		X X X
S	12/18/20		X		SP2.7BH	0"	3"				1		X X X
S	12/18/20		X		SP2.8SW	0"	3"				1		X X X
S	12/18/20		X		SP2.9SW	0"	3"				1		X X X
S	12/18/20		X		SP2.10BH	0"	3"				1		X X X
S	12/18/20		X		SP2.11BH	0"	3"				1		X X X
S	12/18/20		X		SP2.12SW	0"	3"				1		X X X
S	12/18/20		X		SP3.1SW	0"	3"				1		X X X

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature): <u>[Signature]</u>	Date: <u>12/21/20</u> Time: <u>16:34</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>12/21/20</u> Time: <u>16:34</u>	NOTES: <u>Bill direct to Amarex</u>
Relinquished by (Signature):	Date: Time:	Received by (Signature):	Date: Time:	
Relinquished by (Signature):	Date: Time:	Received by (Signature):	Date: Time:	
Relinquished by (Signature):	Date: Time:	Received by (Signature):	Date: Time:	

Matrix Container: WW - Wastewater, VOA - 40 ml vial, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - Sludge, O - Oil, A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

0121005

CHAIN OF CUSTODY RECORD

APEX
 Office Location Midland, TX
505 N. Big Spring St. Ste. 301A
Midland, TX 79701
 Project Manager Hank W. McConnell

Laboratory: Permian Basin Env. Lab
 Address: 1400 Rankin Hwy.
Midland, TX 79701
 Contact: _____
 Phone: 432-696-7235
 PO/SO #: 725070635033

ANALYSIS REQUESTED

BTEX
Chlorides
TPH
CRD
DEU
MBO

Lab use only
 Due Date: _____
 Temp. of coolers when received (C°) 54 04
16 12
 Page 3 of 5

Sampler's Name: Colton Bickershoff
 Sampler's Signature: Colton Bickershoff

Proj. No.: 725070635033
 Project Name: Red Hills Unit 3
 No/Type of Containers: 10

Matrix	Date	Time	COED	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
21	12/18/20		X		SP3.2BH	0"	3"				1		X X X
22	12/18/20		X		SP3.3SW	0"	3"				1		X X X
23	12/18/20		X		SP3.4SW	0"	3"				1		X X X
24	12/18/20		X		SP3.5BH	0"	3"				1		X X X
25	12/18/20		X		SP3.6SW	0"	3"				1		X X X
26	12/18/20		X		SP4.1SW	0"	3"				1		X X X
27	12/18/20		X		SP4.2SW	0"	3"				1		X X X
28	12/18/20		X		SP4.3BH	0"	3"				1		X X X
29	12/18/20		X		SP4.4SW	0"	3"				1		X X X
30	12/18/20		X		SP4.5SW	0"	3"				1		X X X

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature): <u>Colton Bickershoff</u>	Date: <u>12/20/20</u>	Time: <u>16:34</u>	Received by (Signature): <u>Theresa Bledsoe</u>	Date: <u>12/20/20</u>	Time: <u>16:34</u>
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____

NOTES:
Bill direct to Amarex

Matrix Container: WW - Wastewater, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - Sludge, O - Oil
 VOA - 40 ml vial, A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

0221005

CHAIN OF CUSTODY RECORD



Office Location Midland, TX
505 N. Big Spring St. Ste. 301A
Midland, TX 79701

Laboratory: Permian Basin Env. Lab
 Address: 1400 Renkin Hwy.
Midland, TX 79701
 Contact: _____
 Phone: 432-686-7235
 PO/SO #: 725070635033

ANALYSIS REQUESTED

Lab use only
 Due Date: _____
 Temp. of coolers when received (C°): 5.4
64 OFFICE
 Page 4 of 5

Sampler's Name: Colton Bickersstaff
 Sampler's Signature: [Signature]

Proj. No.: 725070635033
 Project Name: Red Hills Unit 3
 No/Type of Containers: 10

Matrix	Date	Time	COOL	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
31 S	12/18/20		X		SP4.6BH	0"	3"				1		X X X
32 S	12/18/20		X		SP4.7SW	0"	3"				1		X X X
33 S	12/18/20		X		SP4.8SW	0"	3"				1		X X X
34 S	12/18/20		X		SP5.1SW	0"	3"				1		X X X
35 S	12/18/20		X		SP5.2BH	0"	3"				1		X X X
36 S	12/18/20		X		SP5.3SW	0"	3"				1		X X X
37 S	12/18/20		X		SP5.4SW	0"	3"				1		X X X
38 S	12/18/20		X		SP5.5BH	0"	3"				1		X X X
39 S	12/18/20		X		SP5.6SW	0"	3"				1		X X X
40 S	12/18/20		X		SP5.7SW	0"	3"				1		X X X

BTEX
 CALICIDES
 TPH GRO DRO MRO

31
32
33
34
35
36
37
38
39
40

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature): <u>[Signature]</u>	Date: <u>12/18/20</u>	Time: <u>16:34</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>12/18/20</u>	Time: <u>16:34</u>
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____

NOTES:
Bill direct to Amarex

Matrix: WW - Wastewater, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - Sludge, O - Oil
 Container: VOA - 40 ml vial, A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

0L21005

CHAIN OF CUSTODY RECORD



Office Location Midland, TX
505 N. Big Spring St. Ste. 301A
Midland, TX 79701

Laboratory: Permian Basin Env. Lab
 Address: 1400 Rankin Hwy.
Midland, TX 79701
 Contact: _____
 Phone: 432-686-7235
 PO/SO #: 725070635033

ANALYSIS REQUESTED

Lab use only
 Due Date: _____

Temp. of coolers when received (C°): 5.4
6.4
2FH

1 2 3 4 5
 Page 5 of 5

Sampler's Name: Colton Bickerstaff
 Sampler's Signature: [Signature]

Proj. No.: 725070635033
 Project Name: Red Hills Unit 3
 No/Type of Containers: 3

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)	
41 S	12/18/20		X		SPS. 8BH	0"	3"				1		X X X	
42 S	12/18/20		X		SPS. 9SW	0"	3"				1		X X X	
43 S	12/18/20		X		SPS. 10BH	0"	3"				1		X X X	

BTEX
 Chlorides
 TPH
 GRO
 DRO
 MRO

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature): <u>[Signature]</u>	Date: <u>12/18/20</u>	Time: <u>16:34</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>12/18/20</u>	Time: <u>16:34</u>
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____

NOTES:
Bill direct to Cimarex

Matrix Container: WW - Wastewater, VOA - 40 ml vial
 W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - Sludge, O - Oil
 A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 31, 2017

JOHN OSBORNE

CIMAREX ENERGY CO.-MIDLAND

600 N. MARIENFELD ST, SUITE 600

MIDLAND, TX 79701

RE: RED HILLS CLEAN-UP

Enclosed are the results of analyses for samples received by the laboratory on 10/30/17 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND 600 N. MARIENFELD ST, SUITE 600 MIDLAND TX, 79701	Project: RED HILLS CLEAN-UP Project Number: NONE GIVEN Project Manager: JOHN OSBORNE Fax To: UNK-NOWN	Reported: 31-Oct-17 15:29
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP. 4 LIQUID SAMPLE	H702964-04	Wastewater	29-Oct-17 17:00	30-Oct-17 10:00

Cardinal Laboratories

*=Accredited Analyte

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Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND 600 N. MARIENFELD ST, SUITE 600 MIDLAND TX, 79701	Project: RED HILLS CLEAN-UP Project Number: NONE GIVEN Project Manager: JOHN OSBORNE Fax To: UNK-NOWN	Reported: 31-Oct-17 15:29
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**SP. 4 LIQUID SAMPLE
H702964-04 (Wastewater)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

VOLATILES BY GC/MS

Dichlorodifluoromethane*	<2.54	2.54	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Chloromethane*	<0.735	0.735	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Vinyl chloride*	<1.71	1.71	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Bromomethane*	<3.35	3.35	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Chloroethane*	<22.8	22.8	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Trichlorofluoromethane*	<36.4	36.4	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,1-Dichloroethene*	<15.3	15.3	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Carbon disulfide*	<38.0	38.0	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Iodomethane	<30.0	30.0	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Acrolein*	<53.8	53.8	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Methylene chloride*	<123	123	250	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Acetone*	66.1	28.6	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	J
trans-1,2-Dichloroethene*	<3.58	3.58	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Methyl t-Butyl Ether*	<5.90	5.90	25.0	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,1-Dichloroethane*	<2.34	2.34	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Acrylonitrile*	<6.09	6.09	25.0	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Vinyl acetate*	<1.78	1.78	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
cis-1,2-Dichloroethene*	<3.54	3.54	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
2,2-Dichloropropane*	<2.86	2.86	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Bromochloromethane*	<2.47	2.47	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Chloroform*	<2.31	2.31	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Carbon tetrachloride*	<3.70	3.70	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,1,1-Trichloroethane*	<3.15	3.15	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,1-Dichloropropene*	<2.67	2.67	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
2-Butanone*	<8.10	8.10	25.0	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Benzene*	<2.86	2.86	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2-Dichloroethane*	<3.30	3.30	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Trichloroethene*	<2.06	2.06	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701

Project: RED HILLS CLEAN-UP
Project Number: NONE GIVEN
Project Manager: JOHN OSBORNE
Fax To: UNK-NOWN

Reported:
31-Oct-17 15:29

SP. 4 LIQUID SAMPLE**H702964-04 (Wastewater)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**VOLATILES BY GC/MS**

Dibromomethane*	<2.25	2.25	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2-Dichloropropane*	<3.53	3.53	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Bromodichloromethane*	<2.07	2.07	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
cis-1,3-Dichloropropene*	<1.94	1.94	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Toluene*	4.26	2.91	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	J
4-Methyl-2-pentanone*	<3.67	3.67	25.0	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Tetrachloroethene*	<1.46	1.46	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
trans-1,3-Dichloropropene*	<1.96	1.96	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,1,2-Trichloroethane*	<2.82	2.82	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Dibromochloromethane*	<2.07	2.07	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,3-Dichloropropane*	<3.60	3.60	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2-Dibromoethane*	<3.58	3.58	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
2-Hexanone*	<7.71	7.71	25.0	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Chlorobenzene*	<2.57	2.57	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Ethylbenzene*	6.43	3.49	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	J
1,1,1,2-Tetrachloroethane*	<4.44	4.44	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
m+p - Xylene*	22.1	5.18	25.0	mg/kg	25000	7103008	ms	31-Oct-17	8260B	J
o-Xylene*	16.2	1.23	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Total Xylenes*	38.3	6.42	37.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Bromoform*	<3.69	3.69	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Styrene*	<2.46	2.46	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Isopropylbenzene*	6.06	2.80	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	J
Bromobenzene*	<2.71	2.71	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
n-Propylbenzene*	20.1	2.40	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,1,1,2-Tetrachloroethane*	<3.91	3.91	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
2-Chlorotoluene*	<3.76	3.76	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2,3-trichloropropane*	<5.14	5.14	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,3,5-Trimethylbenzene*	32.0	2.47	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
trans-1,4-Dichloro-2-butene	<10.5	10.5	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND 600 N. MARIENFELD ST, SUITE 600 MIDLAND TX, 79701	Project: RED HILLS CLEAN-UP Project Number: NONE GIVEN Project Manager: JOHN OSBORNE Fax To: UNK-NOWN	Reported: 31-Oct-17 15:29
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**SP. 4 LIQUID SAMPLE
H702964-04 (Wastewater)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

VOLATILES BY GC/MS

4-Chlorotoluene*	<2.34	2.34	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
tert-Butylbenzene*	<3.31	3.31	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2,4-Trimethylbenzene*	136	2.51	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
sec-Butylbenzene*	20.0	3.39	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
p-Isopropyltoluene*	29.3	2.68	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,3-Dichlorobenzene*	<2.64	2.64	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,4 Dichlorobenzene*	<3.26	3.26	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
n-Butylbenzene*	48.7	3.42	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2-Dichlorobenzene*	<2.55	2.55	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2-Dibromo-3-chloropropane*	<19.6	19.6	125	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Hexachlorobutadiene*	7.64	7.00	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	J
1,2,4-Trichlorobenzene*	<3.94	3.94	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Naphthalene*	41.6	2.51	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,2,3-Trichlorobenzene*	<3.01	3.01	12.5	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
1,4-Dioxane	<582	582	3120	mg/kg	25000	7103008	ms	31-Oct-17	8260B	
Surrogate: Dibromofluoromethane			106 %	90.4-111		7103008	ms	31-Oct-17	8260B	
Surrogate: Toluene-d8			95.6 %	85.3-114		7103008	ms	31-Oct-17	8260B	
Surrogate: 4-Bromofluorobenzene			114 %	80.1-121		7103008	ms	31-Oct-17	8260B	

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CIMAREX ENERGY CO.-MIDLAND 600 N. MARIENFELD ST, SUITE 600 MIDLAND TX, 79701	Project: RED HILLS CLEAN-UP Project Number: NONE GIVEN Project Manager: JOHN OSBORNE Fax To: UNK-NOWN	Reported: 31-Oct-17 15:29
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles

Blank (7103008-BLK1)

Prepared & Analyzed: 30-Oct-17

Dichlorodifluoromethane	ND	0.025	mg/kg							
Chloromethane	ND	0.025	mg/kg							
Vinyl chloride	ND	0.025	mg/kg							
Bromomethane	ND	0.025	mg/kg							
Chloroethane	ND	0.250	mg/kg							
Trichlorofluoromethane	ND	0.250	mg/kg							
1,1-Dichloroethene	ND	0.250	mg/kg							
Carbon disulfide	ND	0.250	mg/kg							
Iodomethane	ND	0.250	mg/kg							
Acrolein	ND	0.250	mg/kg							
Methylene chloride	ND	0.500	mg/kg							
Acetone	0.200	0.250	mg/kg							J
trans-1,2-Dichloroethene	ND	0.025	mg/kg							
Methyl t-Butyl Ether	ND	0.050	mg/kg							
1,1-Dichloroethane	ND	0.025	mg/kg							
Acrylonitrile	ND	0.050	mg/kg							
Vinyl acetate	ND	0.025	mg/kg							
cis-1,2-Dichloroethene	ND	0.025	mg/kg							
2,2-Dichloropropane	ND	0.025	mg/kg							
Bromochloromethane	ND	0.025	mg/kg							
Chloroform	ND	0.025	mg/kg							
Carbon tetrachloride	ND	0.025	mg/kg							
1,1,1-Trichloroethane	ND	0.025	mg/kg							
1,1-Dichloropropene	ND	0.025	mg/kg							
2-Butanone	ND	0.050	mg/kg							
Benzene	0.006	0.025	mg/kg							J
1,2-Dichloroethane	ND	0.025	mg/kg							
Trichloroethene	ND	0.025	mg/kg							
Dibromomethane	ND	0.025	mg/kg							
1,2-Dichloropropane	ND	0.025	mg/kg							
Bromodichloromethane	ND	0.025	mg/kg							

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Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND 600 N. MARIENFELD ST, SUITE 600 MIDLAND TX, 79701	Project: RED HILLS CLEAN-UP Project Number: NONE GIVEN Project Manager: JOHN OSBORNE Fax To: UNK-NOWN	Reported: 31-Oct-17 15:29
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles

Blank (7103008-BLK1)

Prepared & Analyzed: 30-Oct-17

cis-1,3-Dichloropropene	ND	0.025	mg/kg							
Toluene	0.018	0.025	mg/kg							J
4-Methyl-2-pentanone	ND	0.050	mg/kg							
Tetrachloroethene	ND	0.025	mg/kg							
trans-1,3-Dichloropropene	ND	0.025	mg/kg							
1,1,2-Trichloroethane	ND	0.025	mg/kg							
Dibromochloromethane	ND	0.025	mg/kg							
1,3-Dichloropropane	ND	0.025	mg/kg							
1,2-Dibromoethane	ND	0.025	mg/kg							
2-Hexanone	ND	0.050	mg/kg							
Chlorobenzene	ND	0.025	mg/kg							
Ethylbenzene	0.009	0.025	mg/kg							J
1,1,1,2-Tetrachloroethane	ND	0.025	mg/kg							
m+p - Xylene	0.011	0.050	mg/kg							J
o-Xylene	0.006	0.025	mg/kg							J
Total Xylenes	0.017	0.075	mg/kg							J
Bromofom	ND	0.025	mg/kg							
Styrene	ND	0.025	mg/kg							
Isopropylbenzene	ND	0.025	mg/kg							
Bromobenzene	ND	0.025	mg/kg							
n-Propylbenzene	0.006	0.025	mg/kg							J
1,1,2,2-Tetrachloroethane	ND	0.025	mg/kg							
2-Chlorotoluene	ND	0.025	mg/kg							
1,2,3-trichloropropane	ND	0.025	mg/kg							
1,3,5-Trimethylbenzene	ND	0.025	mg/kg							
trans-1,4-Dichloro-2-butene	ND	0.250	mg/kg							
4-Chlorotoluene	ND	0.025	mg/kg							
tert-Butylbenzene	ND	0.025	mg/kg							
1,2,4-Trimethylbenzene	0.006	0.025	mg/kg							J
sec-Butylbenzene	ND	0.025	mg/kg							
p-Isopropyltoluene	0.006	0.025	mg/kg							J
1,3-Dichlorobenzene	ND	0.025	mg/kg							

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Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND 600 N. MARIENFELD ST, SUITE 600 MIDLAND TX, 79701	Project: RED HILLS CLEAN-UP Project Number: NONE GIVEN Project Manager: JOHN OSBORNE Fax To: UNK-NOWN	Reported: 31-Oct-17 15:29
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles

Blank (7103008-BLK1)

Prepared & Analyzed: 30-Oct-17

1,4 Dichlorobenzene	ND	0.025	mg/kg							
n-Butylbenzene	0.013	0.025	mg/kg							J
1,2-Dichlorobenzene	ND	0.025	mg/kg							
1,2-Dibromo-3-chloropropane	ND	0.250	mg/kg							
Hexachlorobutadiene	ND	0.025	mg/kg							
1,2,4-Trichlorobenzene	ND	0.025	mg/kg							
Naphthalene	0.007	0.025	mg/kg							J
1,2,3-Trichlorobenzene	ND	0.025	mg/kg							
1,4-Dioxane	ND	6.25	mg/kg							
Surrogate: Dibromofluoromethane	0.487		mg/kg	0.500		97.3	90.4-111			
Surrogate: Toluene-d8	0.505		mg/kg	0.500		101	85.3-114			
Surrogate: 4-Bromofluorobenzene	0.450		mg/kg	0.500		90.1	80.1-121			

LCS (7103008-BS1)

Prepared & Analyzed: 30-Oct-17

Dichlorodifluoromethane	0.336	0.025	mg/kg	0.500		67.2	27.7-127			
Chloromethane	0.442	0.025	mg/kg	0.500		88.4	39-143			
Vinyl chloride	0.464	0.025	mg/kg	0.500		92.9	38.9-132			
Bromomethane	0.525	0.025	mg/kg	0.500		105	44.2-129			
Chloroethane	0.606	0.250	mg/kg	0.500		121	24.2-192			
Trichlorofluoromethane	0.315	0.250	mg/kg	0.500		62.9	38-176			
1,1-Dichloroethene	0.554	0.250	mg/kg	0.500		111	51.1-157			
Carbon disulfide	1.03	0.250	mg/kg	1.00		103	18.6-235			
Iodomethane	1.08	0.250	mg/kg	1.00		108	69.6-113			
Acrolein	1.88	0.250	mg/kg	5.00		37.6	0-200			
Methylene chloride	0.511	0.500	mg/kg	0.500		102	70-122			
Acetone	1.12	0.250	mg/kg	1.00		112	0-200			
trans-1,2-Dichloroethene	0.512	0.025	mg/kg	0.500		102	69.9-124			
Methyl t-Butyl Ether	1.03	0.050	mg/kg	1.00		103	0-200			
1,1-Dichloroethane	0.489	0.025	mg/kg	0.500		97.8	81.7-132			
Acrylonitrile	0.915	0.050	mg/kg	1.00		91.5	0-200			
Vinyl acetate	0.372	0.025	mg/kg	0.500		74.3	0-200			
cis-1,2-Dichloroethene	0.466	0.025	mg/kg	0.500		93.1	66.7-123			

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701

Project: RED HILLS CLEAN-UP
Project Number: NONE GIVEN
Project Manager: JOHN OSBORNE
Fax To: UNK-NOWN

Reported:
31-Oct-17 15:29

VOLATILES BY GC/MS - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles**LCS (7103008-BS1)**

Prepared & Analyzed: 30-Oct-17

2,2-Dichloropropane	0.428	0.025	mg/kg	0.500		85.6	57.2-119			
Bromochloromethane	0.477	0.025	mg/kg	0.500		95.3	67.5-123			
Chloroform	0.461	0.025	mg/kg	0.500		92.2	77.2-124			
Carbon tetrachloride	0.484	0.025	mg/kg	0.500		96.8	76.3-132			
1,1,1-Trichloroethane	0.493	0.025	mg/kg	0.500		98.6	79.5-131			
1,1-Dichloropropene	0.525	0.025	mg/kg	0.500		105	77.7-125			
2-Butanone	0.953	0.050	mg/kg	1.00		95.3	0-200			
Benzene	0.499	0.025	mg/kg	0.500		99.8	75.1-126			
1,2-Dichloroethane	0.463	0.025	mg/kg	0.500		92.6	73.1-121			
Trichloroethene	0.536	0.025	mg/kg	0.500		107	74.5-119			
Dibromomethane	0.457	0.025	mg/kg	0.500		91.3	73-123			
1,2-Dichloropropane	0.485	0.025	mg/kg	0.500		96.9	72.5-128			
Bromodichloromethane	0.452	0.025	mg/kg	0.500		90.3	74.6-129			
cis-1,3-Dichloropropene	0.420	0.025	mg/kg	0.500		84.0	61.6-122			
Toluene	0.501	0.025	mg/kg	0.500		100	71.7-121			
4-Methyl-2-pentanone	0.829	0.050	mg/kg	1.00		82.9	0-200			
Tetrachloroethene	0.532	0.025	mg/kg	0.500		106	76.8-114			
trans-1,3-Dichloropropene	0.396	0.025	mg/kg	0.500		79.3	63-130			
1,1,2-Trichloroethane	0.479	0.025	mg/kg	0.500		95.9	71.5-113			
Dibromochloromethane	0.439	0.025	mg/kg	0.500		87.8	70.9-123			
1,3-Dichloropropane	0.478	0.025	mg/kg	0.500		95.6	70.6-114			
1,2-Dibromoethane	0.478	0.025	mg/kg	0.500		95.6	71.2-114			
2-Hexanone	0.822	0.050	mg/kg	1.00		82.2	0-200			
Chlorobenzene	0.483	0.025	mg/kg	0.500		96.7	80.2-119			
Ethylbenzene	0.451	0.025	mg/kg	0.500		90.2	80.2-118			
1,1,1,2-Tetrachloroethane	0.461	0.025	mg/kg	0.500		92.1	72.9-113			
m+p - Xylene	0.910	0.050	mg/kg	1.00		91.0	83-124			
Total Xylenes	1.34	0.075	mg/kg	1.50		89.5	84.1-122			
o-Xylene	0.432	0.025	mg/kg	0.500		86.4	84.7-121			
Bromoform	0.411	0.025	mg/kg	0.500		82.1	66-120			
Styrene	0.442	0.025	mg/kg	0.500		88.4	76.3-110			
Isopropylbenzene	0.446	0.025	mg/kg	0.500		89.2	84.9-127			

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701

Project: RED HILLS CLEAN-UP
Project Number: NONE GIVEN
Project Manager: JOHN OSBORNE
Fax To: UNK-NOWN

Reported:
31-Oct-17 15:29

VOLATILES BY GC/MS - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles**LCS (7103008-BS1)**

Prepared & Analyzed: 30-Oct-17

Bromobenzene	0.485	0.025	mg/kg	0.500		97.0	70.8-117			
n-Propylbenzene	0.457	0.025	mg/kg	0.500		91.3	81.5-133			
1,1,2,2-Tetrachloroethane	0.428	0.025	mg/kg	0.500		85.6	61.8-110			
2-Chlorotoluene	0.494	0.025	mg/kg	0.500		98.7	79.8-121			
1,2,3-trichloropropane	0.448	0.025	mg/kg	0.500		89.6	50.6-118			
1,3,5-Trimethylbenzene	0.447	0.025	mg/kg	0.500		89.5	78.3-117			
trans-1,4-Dichloro-2-butene	0.320	0.250	mg/kg	1.00		32.0	8.5-181			
4-Chlorotoluene	0.458	0.025	mg/kg	0.500		91.6	81.1-120			
tert-Butylbenzene	0.481	0.025	mg/kg	0.500		96.3	78-120			
1,2,4-Trimethylbenzene	0.460	0.025	mg/kg	0.500		91.9	77-125			
sec-Butylbenzene	0.476	0.025	mg/kg	0.500		95.3	75.5-125			
p-Isopropyltoluene	0.456	0.025	mg/kg	0.500		91.1	69.4-126			
1,3-Dichlorobenzene	0.500	0.025	mg/kg	0.500		100	72.3-115			
1,4 Dichlorobenzene	0.476	0.025	mg/kg	0.500		95.1	73.6-115			
n-Butylbenzene	0.473	0.025	mg/kg	0.500		94.6	64-131			
1,2-Dichlorobenzene	0.479	0.025	mg/kg	0.500		95.7	78-113			
1,2-Dibromo-3-chloropropane	0.379	0.250	mg/kg	0.500		75.8	49.7-112			
Hexachlorobutadiene	0.626	0.025	mg/kg	0.500		125	54.4-131			
1,2,4-Trichlorobenzene	0.493	0.025	mg/kg	0.500		98.5	73.4-114			
Naphthalene	0.387	0.025	mg/kg	0.500		77.4	72.2-121			
1,2,3-Trichlorobenzene	0.492	0.025	mg/kg	0.500		98.3	76-112			
1,4-Dioxane	ND	6.25	mg/kg	24.9			0-200			
Surrogate: Dibromofluoromethane	0.481		mg/kg	0.500		96.2	90.4-111			
Surrogate: Toluene-d8	0.496		mg/kg	0.500		99.1	85.3-114			
Surrogate: 4-Bromofluorobenzene	0.498		mg/kg	0.500		99.6	80.1-121			

LCS Dup (7103008-BS1)

Prepared & Analyzed: 30-Oct-17

Dichlorodifluoromethane	0.314	0.025	mg/kg	0.500		62.9	27.7-127	6.73	19.5	
Chloromethane	0.397	0.025	mg/kg	0.500		79.4	39-143	10.7	23.1	
Vinyl chloride	0.435	0.025	mg/kg	0.500		86.9	38.9-132	6.58	19.3	
Bromomethane	0.501	0.025	mg/kg	0.500		100	44.2-129	4.66	21	
Chloroethane	0.589	0.250	mg/kg	0.500		118	24.2-192	2.92	23	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701

Project: RED HILLS CLEAN-UP
Project Number: NONE GIVEN
Project Manager: JOHN OSBORNE
Fax To: UNK-NOWN

Reported:
31-Oct-17 15:29

VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles

LCS Dup (7103008-BSD1)

Prepared & Analyzed: 30-Oct-17

Trichlorofluoromethane	0.279	0.250	mg/kg	0.500		55.7	38-176	12.2	29.2	
1,1-Dichloroethene	0.529	0.250	mg/kg	0.500		106	51.1-157	4.66	20.3	
Carbon disulfide	1.01	0.250	mg/kg	1.00		101	18.6-235	2.11	24.9	
Iodomethane	1.06	0.250	mg/kg	1.00		106	69.6-113	1.52	17.7	
Acrolein	1.79	0.250	mg/kg	5.00		35.9	0-200	4.57	50	
Methylene chloride	0.500	0.500	mg/kg	0.500		100	70-122	2.12	22.9	
Acetone	1.05	0.250	mg/kg	1.00		105	0-200	6.11	50	
trans-1,2-Dichloroethene	0.497	0.025	mg/kg	0.500		99.4	69.9-124	2.85	16	
Methyl t-Butyl Ether	1.03	0.050	mg/kg	1.00		103	0-200	0.0824	50	
1,1-Dichloroethane	0.484	0.025	mg/kg	0.500		96.8	81.7-132	1.03	17.7	
Acrylonitrile	0.918	0.050	mg/kg	1.00		91.8	0-200	0.392	50	
Vinyl acetate	0.359	0.025	mg/kg	0.500		71.8	0-200	3.36	50	
cis-1,2-Dichloroethene	0.472	0.025	mg/kg	0.500		94.4	66.7-123	1.39	16.2	
2,2-Dichloropropane	0.405	0.025	mg/kg	0.500		81.0	57.2-119	5.59	16.2	
Bromochloromethane	0.460	0.025	mg/kg	0.500		92.0	67.5-123	3.50	16.1	
Chloroform	0.448	0.025	mg/kg	0.500		89.6	77.2-124	2.88	14.3	
Carbon tetrachloride	0.485	0.025	mg/kg	0.500		97.1	76.3-132	0.345	17.1	
1,1,1-Trichloroethane	0.484	0.025	mg/kg	0.500		96.9	79.5-131	1.77	16.9	
1,1-Dichloropropene	0.500	0.025	mg/kg	0.500		99.9	77.7-125	4.89	16	
2-Butanone	0.925	0.050	mg/kg	1.00		92.5	0-200	2.98	50	
Benzene	0.495	0.025	mg/kg	0.500		99.1	75.1-126	0.778	15.7	
1,2-Dichloroethane	0.454	0.025	mg/kg	0.500		90.9	73.1-121	1.87	16	
Trichloroethene	0.504	0.025	mg/kg	0.500		101	74.5-119	6.11	15	
Dibromomethane	0.448	0.025	mg/kg	0.500		89.6	73-123	1.89	18.5	
1,2-Dichloropropane	0.482	0.025	mg/kg	0.500		96.4	72.5-128	0.608	18.4	
Bromodichloromethane	0.458	0.025	mg/kg	0.500		91.5	74.6-129	1.33	15.4	
cis-1,3-Dichloropropene	0.417	0.025	mg/kg	0.500		83.5	61.6-122	0.581	17.3	
Toluene	0.483	0.025	mg/kg	0.500		96.5	71.7-121	3.77	14.4	
4-Methyl-2-pentanone	0.793	0.050	mg/kg	1.00		79.3	0-200	4.49	50	
Tetrachloroethene	0.503	0.025	mg/kg	0.500		101	76.8-114	5.70	15.8	
trans-1,3-Dichloropropene	0.396	0.025	mg/kg	0.500		79.3	63-130	0.0378	14.3	
1,1,2-Trichloroethane	0.456	0.025	mg/kg	0.500		91.3	71.5-113	4.91	14.7	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701

Project: RED HILLS CLEAN-UP
Project Number: NONE GIVEN
Project Manager: JOHN OSBORNE
Fax To: UNK-NOWN

Reported:
31-Oct-17 15:29

VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles

LCS Dup (7103008-BSD1)

Prepared & Analyzed: 30-Oct-17

Dibromochloromethane	0.424	0.025	mg/kg	0.500		84.8	70.9-123	3.43	15	
1,3-Dichloropropane	0.469	0.025	mg/kg	0.500		93.9	70.6-114	1.78	17.8	
1,2-Dibromoethane	0.454	0.025	mg/kg	0.500		90.9	71.2-114	5.06	22	
2-Hexanone	0.785	0.050	mg/kg	1.00		78.5	0-200	4.60	50	
Chlorobenzene	0.473	0.025	mg/kg	0.500		94.7	80.2-119	2.08	16.2	
Ethylbenzene	0.437	0.025	mg/kg	0.500		87.5	80.2-118	3.07	14.1	
1,1,1,2-Tetrachloroethane	0.456	0.025	mg/kg	0.500		91.1	72.9-113	1.10	14.7	
m+p - Xylene	0.885	0.050	mg/kg	1.00		88.5	83-124	2.79	14.6	
Total Xylenes	1.31	0.075	mg/kg	1.50		87.2	84.1-122	2.56	14.1	
o-Xylene	0.423	0.025	mg/kg	0.500		84.6	84.7-121	2.07	14	BS2
Bromoform	0.391	0.025	mg/kg	0.500		78.2	66-120	4.90	22.2	
Styrene	0.425	0.025	mg/kg	0.500		85.0	76.3-110	3.96	14.7	
Isopropylbenzene	0.433	0.025	mg/kg	0.500		86.7	84.9-127	2.90	14.6	
Bromobenzene	0.456	0.025	mg/kg	0.500		91.2	70.8-117	6.15	16.9	
n-Propylbenzene	0.439	0.025	mg/kg	0.500		87.8	81.5-133	3.96	18.5	
1,1,2,2-Tetrachloroethane	0.410	0.025	mg/kg	0.500		82.0	61.8-110	4.22	28.6	
2-Chlorotoluene	0.478	0.025	mg/kg	0.500		95.7	79.8-121	3.13	17.8	
1,2,3-trichloropropane	0.432	0.025	mg/kg	0.500		86.4	50.6-118	3.70	30.8	
1,3,5-Trimethylbenzene	0.431	0.025	mg/kg	0.500		86.3	78.3-117	3.68	18.3	
trans-1,4-Dichloro-2-butene	0.284	0.250	mg/kg	1.00		28.4	8.5-181	11.7	35.4	
4-Chlorotoluene	0.443	0.025	mg/kg	0.500		88.7	81.1-120	3.24	18.3	
tert-Butylbenzene	0.459	0.025	mg/kg	0.500		91.9	78-120	4.68	17.2	
1,2,4-Trimethylbenzene	0.444	0.025	mg/kg	0.500		88.7	77-125	3.53	17.4	
sec-Butylbenzene	0.444	0.025	mg/kg	0.500		88.7	75.5-125	7.16	17.8	
p-Isopropyltoluene	0.432	0.025	mg/kg	0.500		86.4	69.4-126	5.38	19.6	
1,3-Dichlorobenzene	0.479	0.025	mg/kg	0.500		95.8	72.3-115	4.33	18.7	
1,4 Dichlorobenzene	0.460	0.025	mg/kg	0.500		92.1	73.6-115	3.26	18.7	
n-Butylbenzene	0.431	0.025	mg/kg	0.500		86.1	64-131	9.36	19.6	
1,2-Dichlorobenzene	0.463	0.025	mg/kg	0.500		92.5	78-113	3.41	18.8	
1,2-Dibromo-3-chloropropane	0.361	0.250	mg/kg	0.500		72.2	49.7-112	4.85	45.4	
Hexachlorobutadiene	0.477	0.025	mg/kg	0.500		95.5	54.4-131	26.9	20.3	QR-02
1,2,4-Trichlorobenzene	0.443	0.025	mg/kg	0.500		88.7	73.4-114	10.5	21.6	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND 600 N. MARIENFELD ST, SUITE 600 MIDLAND TX, 79701	Project: RED HILLS CLEAN-UP Project Number: NONE GIVEN Project Manager: JOHN OSBORNE Fax To: UNK-NOWN	Reported: 31-Oct-17 15:29
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7103008 - Volatiles

LCS Dup (7103008-BSD1)

Prepared & Analyzed: 30-Oct-17

Naphthalene	0.366	0.025	mg/kg	0.500		73.1	72.2-121	5.74	25.6	
1,2,3-Trichlorobenzene	0.428	0.025	mg/kg	0.500		85.6	76-112	13.8	21.2	
1,4-Dioxane	ND	6.25	mg/kg	24.9			0-200		50	
Surrogate: Dibromofluoromethane	0.472		mg/kg	0.500		94.5	90.4-111			
Surrogate: Toluene-d8	0.491		mg/kg	0.500		98.1	85.3-114			
Surrogate: 4-Bromofluorobenzene	0.511		mg/kg	0.500		102	80.1-121			

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- BS2 Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



RUSHED

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>CINEX Energy</u>		BILL TO		ANALYSIS REQUEST																
Project Manager: <u>John Osborne</u>		P.O. #:																		
Address:		Company: <u>CINEX</u>																		
City: State: Zip:		Attn: <u>John Osborne</u>																		
Phone #: Fax #:		Address:																		
Project #: Project Owner:		City:																		
Project Name: <u>Chemical Clean-up</u>		State: Zip:																		
Project Location: <u>Red Hills 003 Lea, CO</u>		Phone #:																		
Sampler Name: <u>M. Alus</u>		Fax #:																		
FOR LAB USE ONLY																				
Lab I.D.	Sample I.D.	(GRAB OR (C)/OMP. # CONTAINERS	MATRIX	PRESERV.	SAMPLING															
			GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	ACID/BASE ICE / COOL OTHER :	DATE	TIME	PH	TPH	VOI											
<u>H7029164</u>																				
<u>1</u>	<u>sp.1 @ surf</u>	<u>8</u>	X	X	<u>10/24/17</u>	<u>5:30</u>	X	X	X	X						<u>HOLD</u>				
<u>2</u>	<u>sp.2 @ surf</u>	<u>8</u>	X	X	<u>10/24/17</u>	<u>5:45</u>	X	X	X	X						<u>HOLD</u>				
<u>3</u>	<u>sp.3 @ surf</u>	<u>8</u>	X	X	<u>10/24/17</u>	<u>6:00</u>	X	X	X	X						<u>HOLD</u>				
<u>4</u>	<u>sp.4 - liquid sample</u>	<u>8</u>		X	<u>10/24/17</u>	<u>5:00</u>	X	X	X	X										

10-30-17
TOTAL

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Relinquished By: <u>[Signature]</u>	Date: <u>10-30-17</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <u>[Signature]</u>	Date: <u>10-30-17</u>	Received By: <u>[Signature]</u>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) <u>2.18</u>	Sample Condition	CHECKED BY: <u>TO-#75</u>	REMARKS: <u>RUSH!!!</u> <u>EMAIL ALL @ DIVERSIFIED</u>	
Sampler - UPS - Bus <u>Other: Corrected 2.35</u>	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
District II
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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 68833

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld Street Midland, TX 79701	OGRID: 162683 Action Number: 68833 Action Type: [C-141] Release Corrective Action (C-141)
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CONDITIONS

Created By	Condition	Condition Date
bhall	None	9/16/2022