



MCollier@H-R_Enterprises.com 575-909-0326

Site Assessment and Closure Report

Federal 13 Com #002
Incident# nGEG0420547165
Eddy County, New Mexico

Prepared For:

Cimarex Energy Co. of Colorado
6001 Deauville Blvd. Suite 300N
Midland, TX 79706

Prepared By:

H&R Enterprises, LLC
5120 W. Kansas St.
Hobbs, New Mexico 88242

August 18, 2023

Mr. Mike Bratcher
NMOCD
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Subject: **Site Assessment and Closure Report**
Federal 13 Com #002
Eddy County, NM

Dear Mr. Bratcher,

Cimarex Energy Co. of Colorado has contracted H&R Enterprises (H&R) to perform site assessment services at the above-referenced location. The results of our site assessment activities are contained herein.

Site Information

The Federal 13 Com #002 is located approximately 18.1 miles South of Carlsbad, New Mexico. The legal location for this release is Unit Letter K, Section 13, Township 25 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.1269608 North and -104.2504272 West. Site plans are presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Reeves-Gypsum land complex, 0 to 3 percent slopes. The referenced soil data is attached in [Appendix II](#). Drainage courses in this area are typically dry. The project site is located in a high Karst potential area (Karst Map, [Appendix I](#)).

Groundwater and Site Characterization

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 44-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

Approximate Depth to Groundwater	44 Feet/BGS
---	--------------------

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 200 feet of any lakebed, sinkhole, or a playa lake
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 1000 feet of any freshwater well or spring
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of a wetland
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within the area overlying a subsurface mine
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Within an unstable area
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within a 100-year floodplain

As this is an assessment in a high karst as well as being in an area with a depth to groundwater of less than 50-feet BGS, the closure criteria for this site is as follows:

Table I			
Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride **	EPA 300.0 or SM4500 CIB	600 mg/kg
	TPH (GRO+DRO+MRO)	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

Incident Description

On July 23, 2004, it was discovered that a hose on a diesel fuel tank had ruptured and released approximately 19 barrels (bbls) of diesel fuel into its containment and onto the well pad.

Site Assessment and Reclamation Activities

H&R mobilized personnel to begin site assessment, sampling, and reclamation activities of the location. Grab samples were obtained by way of air rotary drill, transported to Cardinal Laboratory for analysis, and the results of that analysis are presented in the following data table. Initial site assessment sampling locations are illustrated on Site Assessment Map, [Appendix I](#). Photographs of the location are attached in [Appendix IV](#). Complete laboratory reports can be found in [Appendix V](#).

Table 1: Initial Soil Samples Analysis

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	100 mg/kg			100 mg/kg	600 mg/kg
BH-1	8/7/2023	0-1'	ND	ND	ND	ND	ND	0	128
		2'	ND	ND	ND	ND	ND	0	464
		3'	ND	ND	ND	16.9	51.2	68.1	480
		4'	ND	ND	ND	10.8	23.7	34.5	480
		5'	ND	ND	ND	ND	ND	0	48
		6'	ND	ND	ND	ND	ND	0	416
		7'	ND	ND	ND	ND	ND	0	400
		8'	ND	ND	ND	ND	ND	0	192
		9'	ND	ND	ND	ND	ND	0	144
		10'	ND	ND	ND	ND	ND	0	176
		11'	ND	ND	ND	ND	ND	0	208
		12'	ND	ND	ND	ND	ND	0	176
		13'	ND	ND	ND	ND	ND	0	192
		14'	ND	ND	ND	ND	ND	0	192
		15'	ND	ND	ND	ND	ND	0	176

ND = Analyte Not Detected BH = Borehole Sample

Based on the results of our site assessment, we believe the impact was removed during previous remediation and reclamation activities and no further action is needed.

Closure

Based on the site assessment activities and sampling results completed for this project, on behalf of Cimarex Energy Co. of Colorado we request that no further actions be required, and that closure of this incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-909-0326.

Respectfully submitted,

H&R Enterprises, LLC

Michael Collier

Michael Collier
Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data
Appendix III Initial and Final C-141
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

APPENDIX I

SITE MAPS

KARST MAP

TOPOGRAPHIC MAP

LOCATOR MAP

Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Site Assessment Map

Legend

▣ Borehole Sample Point





BH-1




Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Karst Map

Legend

-  Federal 13 Com #002
-  High
-  Low
-  Medium

 Black River Center For Learning

 Federal 13 Com #002

772

748

748

748

724




4 mi

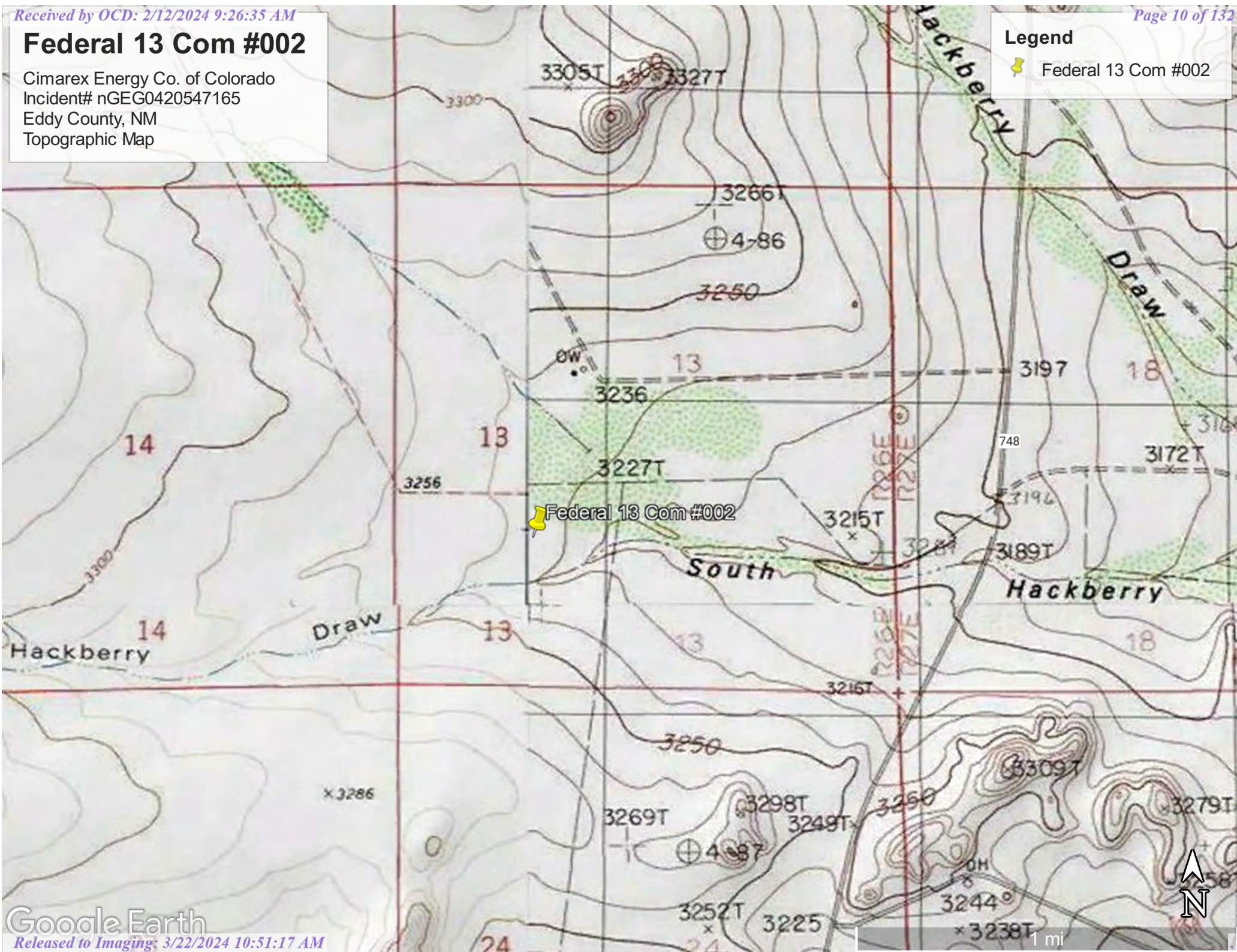
Google Earth

Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Topographic Map

Legend


 Federal 13 Com #002

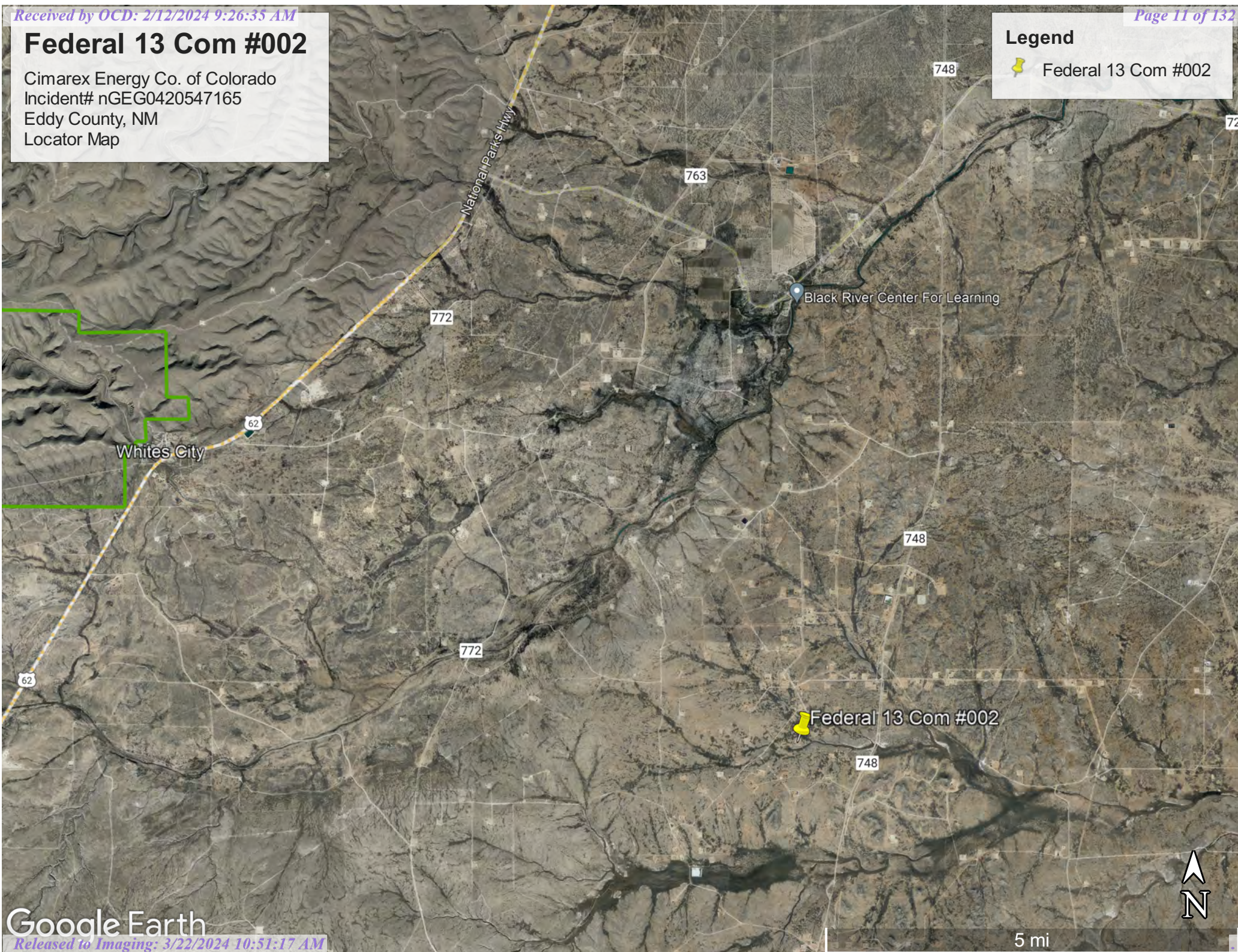


Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Locator Map

Legend

 Federal 13 Com #002



APPENDIX II

GROUNDWATER DATA

SOIL SURVEY



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

		POD														Water
POD Number	Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Column	
C_03654 POD1		CUB	ED	2	3	1	24	25S	26E	570654	3553773	<input type="checkbox"/>	1001			
C_03569 POD1		CUB	ED	2	1	1	14	25S	26E	568862	3555746	<input type="checkbox"/>	2110	30	0 30	
C_02220		CUB	ED	3	1	2	26	25S	26E	569598	3552352*	<input type="checkbox"/>	2672	35		
C_03655 POD3		CUB	ED	1	4	4	22	25S	26E	568458	3553019	<input type="checkbox"/>	2871			
C_02221		CUB	ED	4	3	2	25	25S	26E	571412	3551961*	<input type="checkbox"/>	2890	35		
C_04329 POD1		C	ED	2	2	2	27	25S	26E	568577	3552567	<input type="checkbox"/>	3083	57	14 43	
C_03261 POD1		CUB	ED	3	2	1	20	25S	27E	574007	3554006*	<input type="checkbox"/>	3362	351		
C_01013		C	ED				4	25	26E	571505	3551456*	<input type="checkbox"/>	3403	245		
C_01368		C	ED		1	1	22	25S	26E	567261	3554059*	<input type="checkbox"/>	3544	143	118 25	
C_01089		C	ED	3	4	1	03	25S	26E	567505	3558398*	<input type="checkbox"/>	4855	96	45 51	

Average Depth to Water: 44 feet

Minimum Depth: 0 feet

Maximum Depth: 118 feet

Record Count: 10

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 570733

Northing (Y): 3554771

Radius: 5000

*UTM location was derived from PLSS - see Help

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

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

RG—Reeves-Gypsum land complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5f

Elevation: 1,250 to 5,000 feet

Mean annual precipitation: 10 to 25 inches

Mean annual air temperature: 57 to 70 degrees F

Frost-free period: 190 to 235 days

Farmland classification: Not prime farmland

Map Unit Composition

Reeves and similar soils: 55 percent

Gypsum land: 30 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reeves

Setting

Landform: Ridges, plains, hills

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Side slope, head slope, nose slope, crest

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 32 inches: clay loam

H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 25 percent

Gypsum, maximum content: 80 percent

Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Interpretive groups

Land capability classification (irrigated): 3s

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Description of Gypsum Land**Setting**

Landform: Ridges, plains, hills

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Side slope, head slope, nose slope, crest

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components**Largo**

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Reagan

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Cottonwood

Percent of map unit: 5 percent

Ecological site: R070BC033NM - Salty Bottomland

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 18, Sep 8, 2022

APPENDIX III

INITIAL C-141

FINAL C-141

NMOCD Communication

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	nGEG0420547165
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

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

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

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 total dissolved solids (TDS) 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 type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	nGEG0420547165
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input 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: _____	Title: _____
Signature: _____	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	nGEG0420547165
District RP	
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?	<u>44'</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input 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 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 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 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 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 type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input 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 ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Page 4

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District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	nGEG0420547165
District RP	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

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: _____

Printed Name: _____ Title: _____

Ashton Thielke

From: Ashton Thielke
Sent: Tuesday, July 11, 2023 9:26 AM
To: Hall, Brittany, EMNRD
Cc: Laci Luig
Subject: RE: [EXTERNAL] Federal 13 Com #002 - nGEG0420547165, nJMW1224849818, & nAB1719137473
Attachments: FEDERAL 13 COM #002 - Proposed Sampling Map (07.11.2023).jpg

Good morning yall,

After discussing with Brittany over the phone, attached is a new amended sampling map to better understand the area of the 2017 release (in yellow on the map) and confirm that no contamination remains onsite.

Sampling will be conducted in the next few weeks.

Thanks!



Ashton Thielke | PBU - Environmental Consultant

T: 432.813.8988 | M: 281.753.5659 | Ashton.Thielke@coterra.com | www.coterra.com

Coterra Energy Inc. | 6000 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Friday, July 7, 2023 12:51 PM
To: Ashton Thielke <Ashton.Thielke@coterra.com>
Cc: Laci Luig <Laci.Luig@coterra.com>
Subject: RE: [EXTERNAL] Federal 13 Com #002 - nGEG0420547165, nJMW1224849818, & nAB1719137473

Yeah that should work. I will block the time on my calendar.

Have a good weekend!

Brittany Hall • Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd/>

From: Ashton Thielke <Ashton.Thielke@coterra.com>
Sent: Friday, July 7, 2023 11:47 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Laci Luig <Laci.Luig@coterra.com>
Subject: Re: [EXTERNAL] Federal 13 Com #002 - nGEG0420547165, nJMW1224849818, & nAB1719137473

Unfortunately, I am on the road today but can do a call Monday or anytime next week to discuss! Adding boreholes is no problem at all! Does 10 am (mst) work for Monday?



Ashton Thielke | PBU - Environmental Consultant
T: 432.813.5347 | M: 281.753.5659 | ashton.thielke@coterra.com | www.coterra.com
Coterra Energy Inc. | 600 N. Marienfeld Street, Suite 600 | Midland, TX 79701

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Friday, July 7, 2023 12:44:17 PM
To: Ashton Thielke <Ashton.Thielke@coterra.com>
Cc: Laci Luig <Laci.Luig@coterra.com>
Subject: RE: [EXTERNAL] Federal 13 Com #002 - nGEG0420547165, nJMW1224849818, & nAB1719137473

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Sorry Ashton, I didn't forget about this just haven't had the time to look at it until now.

We will need to add a few more bore holes to this in order to get a better characterization of this site.

Do you have some time to talk this afternoon? Some time after 1 but before 3 New Mexico time?

Thanks,
Brittany Hall • Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd/>

From: Ashton Thielke <Ashton.Thielke@coterra.com>
Sent: Monday, June 26, 2023 2:42 PM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Laci Luig <Laci.Luig@coterra.com>
Subject: [EXTERNAL] Federal 13 Com #002 - nGEG0420547165, nJMW1224849818, & nAB1719137473

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon Brittany,

Can you review the email below and give me a call to discuss steps needed to close out all of these incidents. Based off of my research, here are my findings below in chronological order:
 Attached is the closure report written to the BLM that encompasses the area affected by multiple incidents noted below. (nGEG0420547165 & nAB1719137473)

nGEG0420547165 – 7.23.2004 - Open

19 bbl Diesel spill. *Under notes section OCD website states, “Operator handled – No Compliance Written”*
 Based off of aerial imagery, area mentioned above was located within the sample points (WES21-03 & WES21-07). *See attached BLM Closure Report, page 6*
 Both areas were excavated to a depth of 3.0’ with no detection of Hydrocarbons.

nJMW1224849818 – 10.11.2010 - Open

33 bbl Produced Water Spill Inside the lined earthen containment.
 30 bbl recovered. Lost 3 bbl in the dirt.

nAB1621441144 – 7.25.2016 - Closed

40 bbl Oil spill inside the lined earthen containment.
 30 bbl recovered. Lost 10 bbl to the dirt that was subsequently picked up. This site has been closed.

nAB1719137473 – 6.28.2017 - Open

20 bbl Produced Water Flowline release on pad.
 0 bbl recovered.

2.7.2019 – Well Plug and Abandoned

4.5.2020 – BLM NOV

Need to reclaim pad due to chlorides leaching to the surface in various locations.

10.5.2021 – Reclamation begins

Horizontally and vertically delineated and excavated entire site to depths ranging from 3.0’ – 11.0’ in accordance with the approved BLM reclamation workplan using the strictest NMOCD closure criteria.

See attached BLM Closure Report as well as BLM approval of Closure Report

Where I begin (the fun stuff):

1)

nAB1621441144 – 7.25.2016 – Closed. This was a spill inside the plastic lined earthen containment that was closed out. Since this spill took place after and at the same exact spot as “**nJMW1224849818 – 10.11.2010 – Open**”, Cimarex requests this incident be considered closed as any impacted material left from the original spill response in 2010 was removed in 2016 as well as removed in 2021 (during reclamation).

2)

nAB1719137473 – 6.28.2017 – Open & nGEG0420547165 – 7.23.2004 - Open

The above mentioned spills occurred on the pad and were both removed during excavation and reclamation operations. The pad was excavated between depths of 3.0' – 11.0' and samples at those depths were below the strictest NMOCD closure criteria.

Please review the attached approved BLM Closure Report and see if you concur. My goal is to close out the 2 open incidents related to our reclamation efforts.

Due to current site conditions (revegetation and berms/barbed wire for no access to site) and work performed during reclamation, Coterra has reason to believe that any environmental impact remains onsite.

Give me a call once you have reviewed all attached documents.

Thanks!!!



Ashton Thielke | PBU - Environmental Consultant

T: 432.813.8988 | M: 281.753.5659 | Ashton.Thielke@coterra.com | www.coterra.com

Coterra Energy Inc. | 6000 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

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This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise the sender immediately by reply e-mail and delete this message.

NMOCD Requested Sampling Map

Cimarex Energy
Federal 13 Com #002
32.1269608, -104.2404272

nJMW1224849818 (10.11.2010):
Release inside the tank battery containment
Collect 5 5-point composite samples at the areas of S-1 through S-5 (0-0.5').
If all clean, write closure report.

nGEG0420547165 (07.23.2004):
Diesel Tank Spill
Drill from (0-15') and collect samples in 1' intervals at BH-1 to confirm that
previous remediation efforts addressed this historic spill.
Collect surface horizontal samples and include them in work plan/closure report.

nAB1719137473 (06.28.2017):
20 bbl Produced Water Spill on Pad.
Drill from (0-5') and collect samples in 1 intervals at (BH-2 through BH-9) to confirm that
previous remediation efforts addressed this historic spill.
Collect surface horizontal samples and include them in work plan/closure report.

Legend

2004 Spill Area

2010 Spill Area

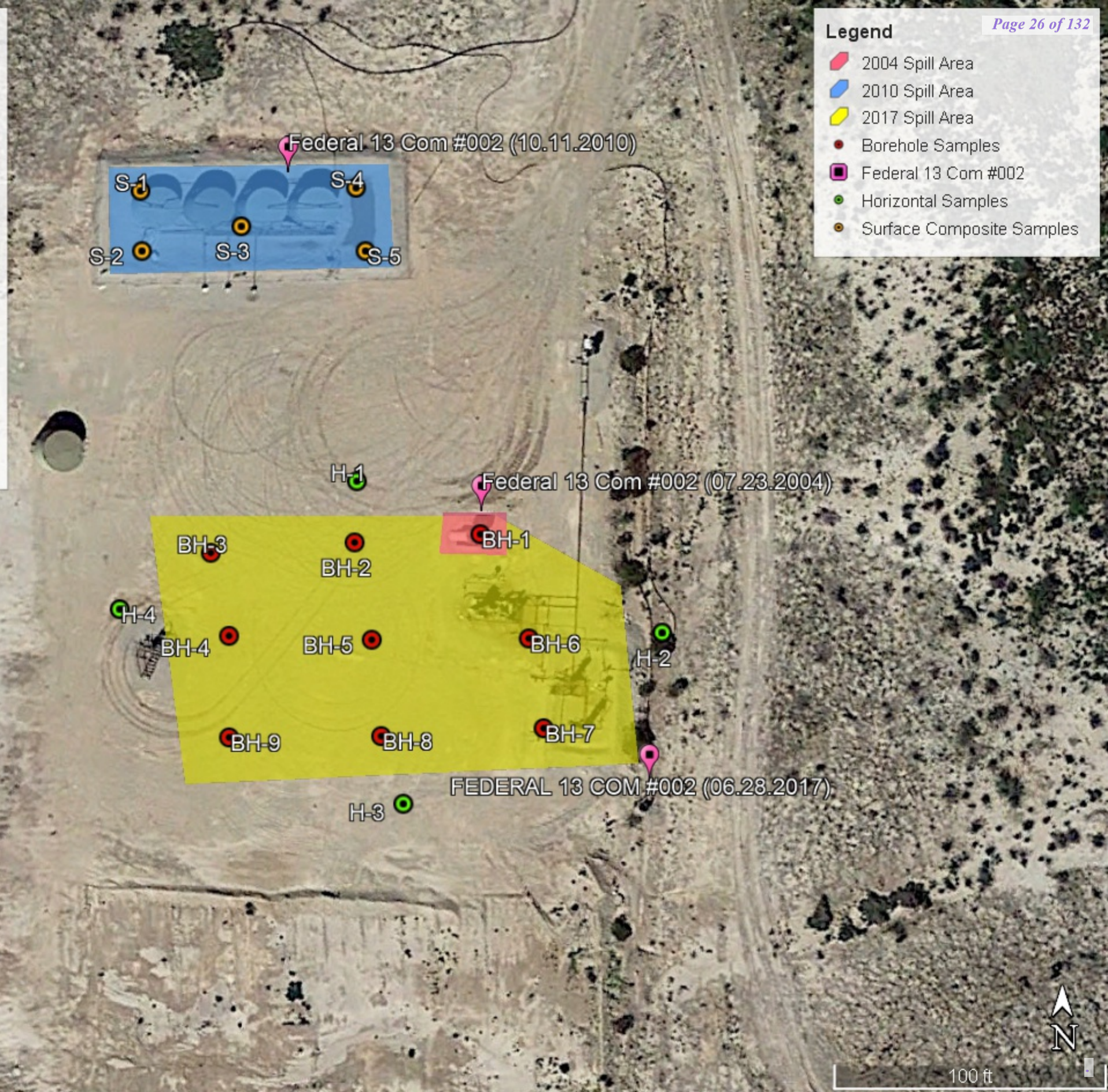
2017 Spill Area

Borehole Samples

Federal 13 Com #002

Horizontal Samples

Surface Composite Samples



APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

SITE ASSESSMENT PHOTOGRAPHS



BH-1

APPENDIX V

LABORATORY REPORTS



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

August 14, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: FEDERAL 13 COM #002 (FED 13 2004)

Enclosed are the results of analyses for samples received by the laboratory on 08/08/23 13:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 0-1' (H234243-01)

BTX 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	08/11/2023	ND	2.02	101	2.00	3.53	
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60	
Total BTX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 60.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 57.9 % 49.1-148

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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:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 2' (H234243-02)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 3' (H234243-03)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	16.9	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	51.2	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 69.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 4' (H234243-04)

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	08/11/2023	ND	2.02	101	2.00	3.53	
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	10.8	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	23.7	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 72.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 5' (H234243-05)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 77.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 6' (H234243-06)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 75.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.8 % 49.1-148

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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:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 7' (H234243-07)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 8' (H234243-08)

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	08/11/2023	ND	2.02	101	2.00	3.53	
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 74.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 9' (H234243-09)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 73.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 10' (H234243-10)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEx	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 70.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 11' (H234243-11)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 76.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 12' (H234243-12)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEx	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 73.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 13' (H234243-13)

BTX 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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 77.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 14' (H234243-14)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEx	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 76.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 15' (H234243-15)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 74.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.6 % 49.1-148

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

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A handwritten signature in black ink, appearing to read "C. D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: H&R Enterprises 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476																																																								
Project Manager: Michael Collier Address: City: State: Zip: Phone #: Fax #: Project #: Project Name: Federal 13 Com #002 (Fed 13 2004) Project Location: Eddy County, NM Sampler Name: Roy Bell					BILL TO P.O. #: Company: Cimarex Energy Attn: Laci Ludwig Address: City: State: Zip: Phone #: Fax #:																																																			
ANALYSIS REQUEST																																																								
FOR LAB USE ONLY Lab I.D.																																																								
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">BH-1 0-1'</th> <th rowspan="2">BH-1 2'</th> <th rowspan="2">BH-1 3'</th> <th rowspan="2">BH-1 4'</th> <th rowspan="2">BH-1 5'</th> <th rowspan="2">BH-1 6'</th> <th rowspan="2">BH-1 7'</th> <th rowspan="2">BH-1 8'</th> <th rowspan="2">BH-1 9'</th> <th rowspan="2">BH-1 10'</th> <th rowspan="2">DATE</th> <th rowspan="2">TIME</th> <th colspan="4">MATRIX</th> <th rowspan="2">BTX</th> <th rowspan="2">TPH</th> <th rowspan="2">Chlorides</th> </tr> <tr> <th>(G)RAB OR (C)OMP.</th> <th># CONTAINERS</th> <th>GROUNDWATER</th> <th>WASTEWATER</th> <th>SOIL</th> <th>OIL</th> <th>SLUDGE</th> <th>OTHER : ACID/BASE:</th> <th>ICE / COOL</th> <th>OTHER :</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>8/7/23</td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> </tr> </table>										BH-1 0-1'	BH-1 2'	BH-1 3'	BH-1 4'	BH-1 5'	BH-1 6'	BH-1 7'	BH-1 8'	BH-1 9'	BH-1 10'	DATE	TIME	MATRIX				BTX	TPH	Chlorides	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER : ACID/BASE:	ICE / COOL	OTHER :											8/7/23		X	X	X			
BH-1 0-1'	BH-1 2'	BH-1 3'	BH-1 4'	BH-1 5'	BH-1 6'	BH-1 7'	BH-1 8'	BH-1 9'	BH-1 10'													DATE	TIME	MATRIX					BTX	TPH	Chlorides																									
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										8/7/23		X	X	X																																										
Relinquished By: <i>[Signature]</i> Date: 8/8/23 Relinquished By: <i>[Signature]</i> Date: 13:35 Received By: <i>[Signature]</i> Date: 8/7/23 Received By: <i>[Signature]</i> Date: 13:35																																																								
Delivered By: (Circle One) Sampler - UPS - Bus - Other:																																																								
Observed Temp. °C Connected Temp. °C Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Checked By: <i>[Signature]</i> (Initials)																																																								
Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No All Results are emailed. Please provide Email address: REMARKS: PG 1 of 2 Turnaround Time: Standard <input checked="" type="checkbox"/> Expedited (only if Sample Condition) <input type="checkbox"/> Thermometer ID #13 Correction Factor -0.3°C Add'l Phone #:																																																								



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

[illegible]



MCollier@H-R_Enterprises.com 575-909-0326

Site Assessment and Closure Report

Federal 13 Com #002
Incident# nGEG0420547165
Eddy County, New Mexico

Prepared For:

Cimarex Energy Co. of Colorado
6001 Deauville Blvd. Suite 300N
Midland, TX 79706

Prepared By:

H&R Enterprises, LLC
5120 W. Kansas St.
Hobbs, New Mexico 88242

March 20, 2024

Mr. Mike Bratcher
NMOCD
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Subject: **Site Assessment and Closure Report**
Federal 13 Com #002
Eddy County, NM

Dear Mr. Bratcher,

Cimarex Energy Co. of Colorado has contracted H&R Enterprises (H&R) to perform site assessment services at the above-referenced location. The results of our site assessment activities are contained herein.

Site Information

The Federal 13 Com #002 is located approximately 18.1 miles South of Hobbs, New Mexico. The legal location for this release is Unit Letter K, Section 13, Township 25 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.1269608 North and -104.2504272 West. Site plans are presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Reeves-Gypsum land complex, 0 to 3 percent slopes. The referenced soil data is attached in [Appendix II](#). Drainage courses in this area are typically dry. The project site is located in a high Karst potential area (Karst Map, [Appendix I](#)).

Groundwater and Site Characterization

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 44-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

Approximate Depth to Groundwater	44 Feet/BGS
----------------------------------	-------------

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 200 feet of any lakebed, sinkhole, or a playa lake
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 1000 feet of any freshwater well or spring
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of a wetland
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within the area overlying a subsurface mine
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within an unstable area
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within a 100-year floodplain

As this is an assessment in a high karst as well as being in an area with a depth to groundwater of less than 50-feet BGS, the closure criteria for this site is as follows:

Table I			
Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride **	EPA 300.0 or SM4500 CIB	600 mg/kg
	TPH (GRO+DRO+MRO)	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

Incident Description

On July 23, 2004, it was discovered that a hose on a diesel fuel tank had ruptured and released approximately 19 barrels (bbls) of diesel fuel into its containment and onto the well pad.

Site Assessment and Reclamation Activities

H&R mobilized personnel to begin site assessment, sampling, and reclamation activities of the location. Grab samples were obtained by way of air rotary drill, transported to Cardinal Laboratory for analysis and the results of that analysis are presented in the following data table. Initial site assessment sampling locations are illustrated on Site Assessment Map, [Appendix I](#). Photographs of the location are attached in [Appendix IV](#). Complete laboratory reports can be found in [Appendix V](#).

Table 1: Initial Soil Samples Analysis Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	100 mg/kg			100 mg/kg	600 mg/kg
BH-1	8/7/2023	0-1'	ND	ND	ND	ND	ND	0	128
		2'	ND	ND	ND	ND	ND	0	464
		3'	ND	ND	ND	16.9	51.2	68.1	480
		4'	ND	ND	ND	10.8	23.7	34.5	480
		5'	ND	ND	ND	ND	ND	0	48
		6'	ND	ND	ND	ND	ND	0	416
		7'	ND	ND	ND	ND	ND	0	400
		8'	ND	ND	ND	ND	ND	0	192
		9'	ND	ND	ND	ND	ND	0	144
		10'	ND	ND	ND	ND	ND	0	176
		11'	ND	ND	ND	ND	ND	0	208
		12'	ND	ND	ND	ND	ND	0	176
		13'	ND	ND	ND	ND	ND	0	192
		14'	ND	ND	ND	ND	ND	0	192
		15'	ND	ND	ND	ND	ND	0	176
BG-1	2/15/2024	0-1'	ND	ND	ND	ND	ND	0	339
BG-2	2/15/2024	0-1'	ND	ND	ND	ND	ND	0	60.2
BG-3	2/15/2024	0-1'	ND	ND	ND	ND	ND	0	76.4
BG-4	2/15/2024	0-1'	ND	ND	ND	ND	ND	0	58.2

ND = Analyte Not Detected BH = Bore Hole BG = Background Horizontal Sample

Based on the results of our site assessment, we believe the impact was removed during previous remediation and reclamation activities.

Reclamation Activities

- This site was re-ripped and contoured to match the surrounding area due to a previous historical release being remediated.
- This site was re-ripped and contoured to match the surrounding area due to a previous historical release being remediated.
- This site will be inspected bi-annually for proper vegetation growth and any noxious/invasive plant growth. Reseeding will take place as necessary as well as any noxious/invasive plant growth removed, and proper steps taken to prevent any future growth.

Closure

Based on the site assessment activities and sampling results completed for this project, on behalf of Cimarex Energy Co. of Colorado we request that no further actions be required, and that closure of this incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-909-0326.

Respectfully submitted,

H&R Enterprises, LLC

Michael Collier

Michael Collier
Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data
Appendix III NMOCD Correspondence
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

APPENDIX I

SITE MAPS

KARST MAP

TOPOGRAPHIC MAP

LOCATOR MAP

Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Site Assessment Map

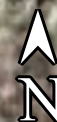
Legend

- Horizontal Sample Point
- Vertical Bore Hole Sample Point

BG-1
BG-4 BH-1 BG-2
BG-3

Google Earth

Released to Imaging: 3/22/2024 10:51:17 AM







80 ft


Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Karst Map

Legend

-  Federal 13 Com #002
-  High
-  Low
-  Medium

 Black River Center For Learning

 Federal 13 Com #002

772

748

748

748

724




4 mi

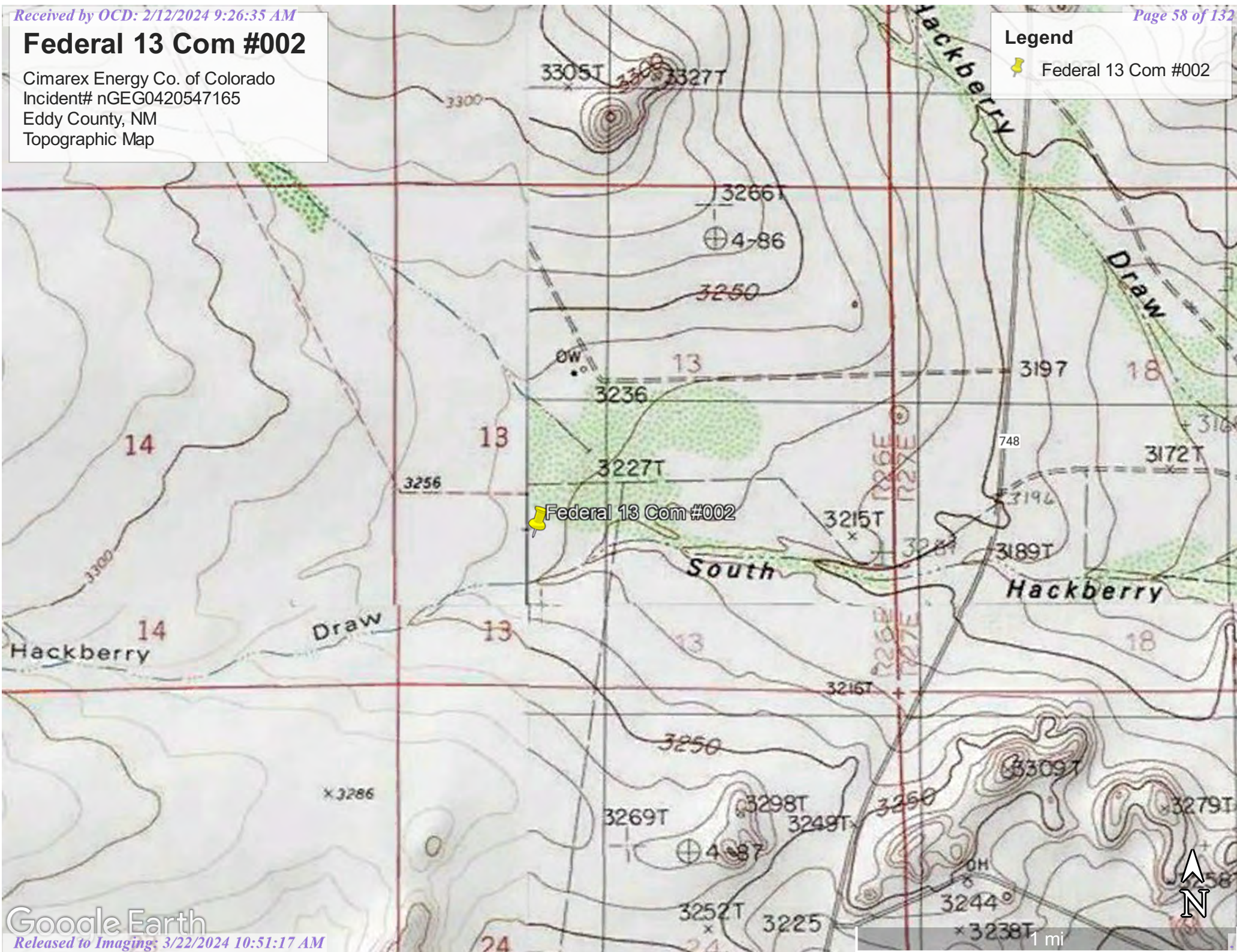
Google Earth

Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Topographic Map

Legend


 Federal 13 Com #002

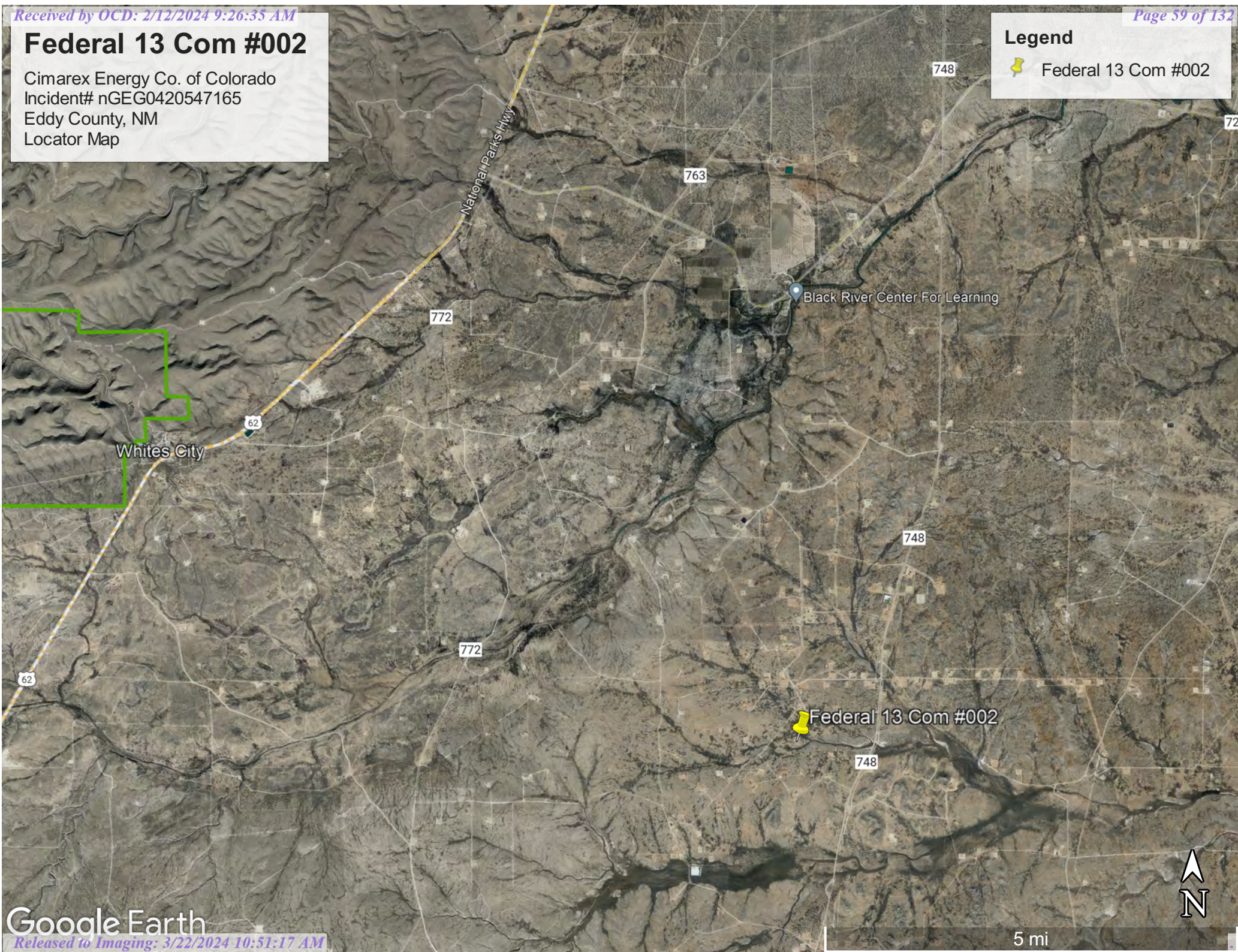


Federal 13 Com #002

Cimarex Energy Co. of Colorado
Incident# nGEG0420547165
Eddy County, NM
Locator Map

Legend

 Federal 13 Com #002



APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

		POD															
POD Number	Code	Sub-basin	County	Q				Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column	
				64	16	4											
C_03654 POD1		CUB	ED	2	3	1	24	25S	26E	570654	3553773	<input type="checkbox"/>	1001				
C_03569 POD1		CUB	ED	2	1	1	14	25S	26E	568862	3555746	<input type="checkbox"/>	2110	30	0	30	
C_02220		CUB	ED	3	1	2	26	25S	26E	569598	3552352*	<input type="checkbox"/>	2672	35			
C_03655 POD3		CUB	ED	1	4	4	22	25S	26E	568458	3553019	<input type="checkbox"/>	2871				
C_02221		CUB	ED	4	3	2	25	25S	26E	571412	3551961*	<input type="checkbox"/>	2890	35			
C_04329 POD1		C	ED	2	2	2	27	25S	26E	568577	3552567	<input type="checkbox"/>	3083	57	14	43	
C_03261 POD1		CUB	ED	3	2	1	20	25S	27E	574007	3554006*	<input type="checkbox"/>	3362	351			
C_01013		C	ED				4	25	25S	26E	571505	3551456*	<input type="checkbox"/>	3403	245		
C_01368		C	ED		1	1	22	25S	26E	567261	3554059*	<input type="checkbox"/>	3544	143	118	25	
C_01089		C	ED	3	4	1	03	25S	26E	567505	3558398*	<input type="checkbox"/>	4855	96	45	51	

Average Depth to Water: 44 feet

Minimum Depth: 0 feet

Maximum Depth: 118 feet

Record Count: 10

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 570733

Northing (Y): 3554771

Radius: 5000

*UTM location was derived from PLSS - see Help

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

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

RG—Reeves-Gypsum land complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5f
Elevation: 1,250 to 5,000 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 190 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Reeves

Setting

Landform: Ridges, plains, hills
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Side slope, head slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 32 inches: clay loam
H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Gypsum, maximum content: 80 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Interpretive groups

Land capability classification (irrigated): 3s

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Description of Gypsum Land**Setting**

Landform: Ridges, plains, hills

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Side slope, head slope, nose slope, crest

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components**Largo**

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Reagan

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Cottonwood

Percent of map unit: 5 percent

Ecological site: R070BC033NM - Salty Bottomland

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 18, Sep 8, 2022

National Flood Hazard Layer FIRMMette



104°15'49"W 32°7'52"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°15'12"W 32°7'22"N

Released to Imaging: 3/22/2024 10:51:17 AM

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/20/2024 at 5:09 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX III

NMOCD CORRESPONDENCE

From: [Ashton Thielke](#)
To: [Walker, Crystal, EMNRD](#)
Cc: [Laci Luig](#); [Michael Collier](#)
Subject: RE: [EXTERNAL] RE: Federal 13 Com #002 - Application 313377 - nGEG0420547165
Date: Tuesday, March 5, 2024 7:26:55 AM

Good morning,

I just submitted a sampling notification for the day we discussed previously on our teams meeting, since we had crews in the area already.
Horizontal samples have been received (clean) but the lab is very slow.
Additionally, since we are currently addressing the 2017 release (nAB1719137473), we are re-reclaiming and reseeding the entire pad.
This work is being documented and will be added to the incident in question here, as well as the 2017 report.
That way we can submit these all as incident closure and reclamation closure.
We will follow up in a few years with a site inspection to confirm that revegetation is adequate and submit a final report for yalls documentation.

Hope that helps.

Thanks!



Ashton Thielke | PBU - Environmental Consultant
T: 432.813.8988 | M: 281.753.5659 | Ashton.Thielke@coterra.com | www.coterra.com
Coterra Energy Inc. | 6001 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

From: Walker, Crystal, EMNRD <Crystal.Walker@emnrd.nm.gov>
Sent: Tuesday, March 5, 2024 8:16 AM
To: Ashton Thielke <Ashton.Thielke@coterra.com>
Cc: Laci Luig <Laci.Luig@coterra.com>; mcollier@h-r-enterprises.com
Subject: RE: [EXTERNAL] RE: Federal 13 Com #002 - Application 313377 - nGEG0420547165

Good morning Ashton,

I will accept the horizontal sampling without the proper sample notification this one time.
Please send the report ASAP as this is nearing 30 days of having the report.

Thank you,
Crystal

From: Ashton Thielke <Ashton.Thielke@coterra.com>
Sent: Monday, March 4, 2024 3:37 PM
To: Walker, Crystal, EMNRD <Crystal.Walker@emnrd.nm.gov>
Cc: Laci Luig <Laci.Luig@coterra.com>; mcollier@h-r-enterprises.com
Subject: RE: [EXTERNAL] RE: Federal 13 Com #002 - Application 313377 - nGEG0420547165

Howdy Crystal,

So I just went through tons of tons of my emails and I totally spaced submitting a sampling notification for this right after our phone call ended to cover the sampling of the 2004 spill incident (nGEG0420547165). But those horizontal samples were collected that afternoon as discussed on our phone call and im still waiting for our environmental consultant to get back with us with an amended sample map/lab table that shows this.

As also discussed, they are currently onsite wrapping up the 2017 spill incident (nAB1719137473), in which there was a proper sample notification placed. That closure report is expected in the following weeks.

Once we have an updated closure report with horizontal samples for the 2004 spill incident, I will forward to you ASAP.

Thanks!



Ashton Thielke | PBU - Environmental Consultant
T: 432.813.8988 | M: 281.753.5659 | Ashton.Thielke@coterra.com | www.coterra.com
Coterra Energy Inc. | 6001 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

From: Walker, Crystal, EMNRD <Crystal.Walker@emnrd.nm.gov>
Sent: Monday, March 4, 2024 3:21 PM
To: Ashton Thielke <Ashton.Thielke@coterra.com>
Subject: RE: [EXTERNAL] RE: Federal 13 Com #002 - Application 313377 - nGEG0420547165

Good afternoon Ashton,

Can you let me know if the extra samples have been taken and a sampling notification submitted?

Needing to get this closed out.

Thanks,
Crystal

From: Ashton Thielke <Ashton.Thielke@coterra.com>
Sent: Thursday, February 15, 2024 6:26 AM
To: Walker, Crystal, EMNRD <Crystal.Walker@emnrd.nm.gov>
Subject: [EXTERNAL] RE: Federal 13 Com #002 - Application 313377 - nGEG0420547165

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

Are you free for a call to discuss this site?

There was some contamination associated with the 2017 Incident that will be addressed in the next few weeks, but as of horizontal delineation of this spill incident, there wasn't anything to delineate since that area had been previously remediated and reclaimed and no contamination was found to be associated with the diesel spill we were investigating.

Let me know when you are free and we can discuss further.

Thanks!



Ashton Thielke | PBU - Environmental Consultant
T: 432.813.8988 | M: 281.753.5659 | Ashton.Thielke@coterra.com | www.coterra.com
Coterra Energy Inc. | 6001 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

From: Walker, Crystal, EMNRD <Crystal.Walker@emnrd.nm.gov>
Sent: Wednesday, February 14, 2024 2:20 PM
To: Ashton Thielke <Ashton.Thielke@coterra.com>
Cc: Walker, Crystal, EMNRD <Crystal.Walker@emnrd.nm.gov>
Subject: [EXTERNAL] Federal 13 Com #002 - Application 313377 - nGEG0420547165

WARNING: This email originated from outside of Coterra Energy. Do not click links or open attachments unless you recognize the sender, are expecting the content and know it is safe.

Good afternoon Mr. Thielke,

I have received the Remediation Closure Request C-141 for Application 313377 for incident nGEG0420547165 regarding the Federal 13 Com #002. The NMOCD Requested Sampling Map included in the closure request application for this incident requests surface horizontal samples to be collected and included in the closure report. I only see the BH-1 sample results.

Can you please provide a revised closure report with the horizontal samples and results as soon as possible so the submitted report does not have to be rejected?

Thank you,
Crystal Walker
Environmental Specialist
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.584.2334 | crystal.walker@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

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This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise the sender immediately by reply e-mail and delete this message.

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

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

QUESTIONS

Action 313362

QUESTIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 313362
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nGEG0420547165
Incident Name	NGEG0420547165 2004 MINOR A SPL @ 30-015-33344
Incident Type	Release Other
Incident Status	Closure Not Approved
Incident Well	[30-015-33344] FEDERAL 13 COM #002

Location of Release Source	
Site Name	Unavailable.
Date Release Discovered	07/23/2004
Surface Owner	Federal

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	350
What is the estimated number of samples that will be gathered	1
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/07/2023
Time sampling will commence	10:00 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Michael Collier - H&R Enterprises - 575-909-0326
Please provide any information necessary for navigation to sampling site	32.1269608, -104.2404272

District I
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Phone:(575) 393-6161 Fax:(575) 393-0720
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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 313362

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 313362
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
lluig	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	2/12/2024

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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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

QUESTIONS

Action 320105

QUESTIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 320105
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nGEG0420547165
Incident Name	NGEG0420547165 FEDERAL 13 COM #002 @ 30-015-33344
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-33344] FEDERAL 13 COM #002

Location of Release Source	
Site Name	FEDERAL 13 COM #002
Date Release Discovered	07/23/2004
Surface Owner	Federal

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	200
What is the estimated number of samples that will be gathered	4
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	02/07/2024
Time sampling will commence	12:00 PM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Michael Collier - H&R - 575-909-0326 Horizontal sampling after teams meeting with OCD to request additional samples.
Please provide any information necessary for navigation to sampling site	See Site Coordinates.

District I
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Phone:(575) 393-6161 Fax:(575) 393-0720
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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 320105

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 320105
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
lluig	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/5/2024

APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

SITE ASSESSMENT PHOTOGRAPHS



BH-1



BG-1

PHOTOGRAPHIC DOCUMENTATION



BG-2



BG-3

PHOTOGRAPHIC DOCUMENTATION



BG-4

FINAL PHOTOGRAPHS



PHOTOGRAPHIC DOCUMENTATION



PHOTOGRAPHIC DOCUMENTATION



APPENDIX V

LABORATORY REPORTS



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

August 14, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: FEDERAL 13 COM #002 (FED 13 2004)

Enclosed are the results of analyses for samples received by the laboratory on 08/08/23 13:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 0-1' (H234243-01)

BTX 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	08/11/2023	ND	2.02	101	2.00	3.53	
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60	
Total BTX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 60.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 57.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 2' (H234243-02)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 3' (H234243-03)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	16.9	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	51.2	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 69.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 4' (H234243-04)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	168	83.8	200	2.04	
DRO >C10-C28*	10.8	10.0	08/10/2023	ND	154	76.8	200	0.382	
EXT DRO >C28-C36	23.7	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 72.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 5' (H234243-05)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 77.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.2 % 49.1-148

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 6' (H234243-06)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 75.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 7' (H234243-07)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 8' (H234243-08)

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	08/11/2023	ND	2.02	101	2.00	3.53	
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 74.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 9' (H234243-09)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEx	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 73.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 10' (H234243-10)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 70.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 11' (H234243-11)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 76.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 12' (H234243-12)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 73.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 13' (H234243-13)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 77.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 14' (H234243-14)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 76.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

H & R ENTERPRISES
 MICHAEL COLLIER
 1010 GAMBLIN ROAD
 HOBBS NM, 88240
 Fax To: NONE

Received: 08/08/2023
 Reported: 08/14/2023
 Project Name: FEDERAL 13 COM #002 (FED 13 2004)
 Project Number: NOT GIVEN
 Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 08/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: BH - 1 15' (H234243-15)

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	08/11/2023	ND	2.02	101	2.00	3.53		
Toluene*	<0.050	0.050	08/11/2023	ND	1.96	97.8	2.00	1.68		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.96	98.1	2.00	4.18		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.87	97.8	6.00	4.60		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/10/2023	ND	432	108	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	08/10/2023	ND	172	85.8	200	2.09	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	182	90.8	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 74.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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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

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

[illegible]



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Michael Collier
H & R Enterprises
5120 W Kansas St
Hobbs, New Mexico 88242
Generated 2/26/2024 2:50:58 PM

JOB DESCRIPTION

FEDERAL 13 COM 2 (FED13)
Eddy

JOB NUMBER

890-6202-1



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Laboratory Job ID: 890-6202-1
SDG: Eddy

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Definitions/Glossary

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: H & R Enterprises
Project: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1

Job ID: 890-6202-1

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Job Narrative 890-6202-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 2/16/2024 8:56 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BG - 1 (890-6202-1), BG - 2 (890-6202-2), BG - 3 (890-6202-3) and BG - 4 (890-6202-4).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BG - 2 (890-6202-2) and (LCSD 880-73881/2-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BG - 4 (890-6202-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

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Client Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Client Sample ID: BG - 1

Lab Sample ID: 890-6202-1

Date Collected: 02/15/24 00:00

Matrix: Solid

Date Received: 02/16/24 08:56

Sample Depth: 0 - 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/22/24 15:27	02/23/24 11:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/22/24 15:27	02/23/24 11:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/22/24 15:27	02/23/24 11:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/22/24 15:27	02/23/24 11:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/22/24 15:27	02/23/24 11:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/22/24 15:27	02/23/24 11:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				02/22/24 15:27	02/23/24 11:09	1
1,4-Difluorobenzene (Surr)	121		70 - 130				02/22/24 15:27	02/23/24 11:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/23/24 11:09	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/20/24 16:49	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/19/24 15:17	02/20/24 16:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/19/24 15:17	02/20/24 16:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/19/24 15:17	02/20/24 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130				02/19/24 15:17	02/20/24 16:49	1
o-Terphenyl	112		70 - 130				02/19/24 15:17	02/20/24 16:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	339		25.0		mg/Kg			02/21/24 02:14	5

Client Sample ID: BG - 2

Lab Sample ID: 890-6202-2

Date Collected: 02/15/24 00:00

Matrix: Solid

Date Received: 02/16/24 08:56

Sample Depth: 0 - 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 11:35	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 11:35	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 11:35	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/22/24 15:27	02/23/24 11:35	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 11:35	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/22/24 15:27	02/23/24 11:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130				02/22/24 15:27	02/23/24 11:35	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Client Sample ID: BG - 2

Lab Sample ID: 890-6202-2

Date Collected: 02/15/24 00:00

Matrix: Solid

Date Received: 02/16/24 08:56

Sample Depth: 0 - 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	128		70 - 130	02/22/24 15:27	02/23/24 11:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/23/24 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/20/24 17:13	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/19/24 15:17	02/20/24 17:13	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/19/24 15:17	02/20/24 17:13	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/19/24 15:17	02/20/24 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				02/19/24 15:17	02/20/24 17:13	1
o-Terphenyl	101		70 - 130				02/19/24 15:17	02/20/24 17:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	60.2		5.04		mg/Kg			02/21/24 02:35	1

Client Sample ID: BG - 3

Lab Sample ID: 890-6202-3

Date Collected: 02/15/24 00:00

Matrix: Solid

Date Received: 02/16/24 08:56

Sample Depth: 0 - 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/22/24 15:27	02/23/24 12:02	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/22/24 15:27	02/23/24 12:02	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/22/24 15:27	02/23/24 12:02	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/22/24 15:27	02/23/24 12:02	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/22/24 15:27	02/23/24 12:02	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/22/24 15:27	02/23/24 12:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	02/22/24 15:27	02/23/24 12:02	1
1,4-Difluorobenzene (Surr)	111		70 - 130	02/22/24 15:27	02/23/24 12:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/23/24 12:02	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/20/24 17:38	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Client Sample ID: BG - 3

Lab Sample ID: 890-6202-3

Date Collected: 02/15/24 00:00

Matrix: Solid

Date Received: 02/16/24 08:56

Sample Depth: 0 - 1'

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/19/24 15:17	02/20/24 17:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/19/24 15:17	02/20/24 17:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/19/24 15:17	02/20/24 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130				02/19/24 15:17	02/20/24 17:38	1
o-Terphenyl	114		70 - 130				02/19/24 15:17	02/20/24 17:38	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	76.4		5.02		mg/Kg			02/21/24 02:41	1

Client Sample ID: BG - 4

Lab Sample ID: 890-6202-4

Date Collected: 02/15/24 00:00

Matrix: Solid

Date Received: 02/16/24 08:56

Sample Depth: 0 - 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/23/24 15:11	02/23/24 17:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/23/24 15:11	02/23/24 17:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/23/24 15:11	02/23/24 17:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/23/24 15:11	02/23/24 17:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/23/24 15:11	02/23/24 17:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/23/24 15:11	02/23/24 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				02/23/24 15:11	02/23/24 17:32	1
1,4-Difluorobenzene (Surr)	112		70 - 130				02/23/24 15:11	02/23/24 17:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/23/24 17:32	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/20/24 18:02	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/19/24 15:17	02/20/24 18:02	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/19/24 15:17	02/20/24 18:02	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/19/24 15:17	02/20/24 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130				02/19/24 15:17	02/20/24 18:02	1
o-Terphenyl	116		70 - 130				02/19/24 15:17	02/20/24 18:02	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Client Sample ID: BG - 4
Date Collected: 02/15/24 00:00
Date Received: 02/16/24 08:56
Sample Depth: 0 - 1'

Lab Sample ID: 890-6202-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.2		4.97		mg/Kg			02/21/24 02:48	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Surrogate Summary

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-6202-1	BG - 1	103	121
890-6202-2	BG - 2	135 S1+	128
890-6202-3	BG - 3	131 S1+	111
890-6202-4	BG - 4	100	112
LCS 880-73881/1-A	Lab Control Sample	108	117
LCS 880-73912/1-A	Lab Control Sample	89	108
LCSD 880-73881/2-A	Lab Control Sample Dup	136 S1+	123
LCSD 880-73912/2-A	Lab Control Sample Dup	89	103
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+
MB 880-73881/5-A	Method Blank	70	113
MB 880-73912/5-A	Method Blank	75	102
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-6202-1	BG - 1	127	112
890-6202-2	BG - 2	108	101
890-6202-3	BG - 3	129	114
890-6202-4	BG - 4	136 S1+	116
LCS 880-73547/2-A	Lab Control Sample	122	129
LCSD 880-73547/3-A	Lab Control Sample Dup	110	108
MB 880-73547/1-A	Method Blank	130	117
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 73858							Prep Batch: 73289		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62	S1-	70 - 130				02/15/24 15:58	02/22/24 18:16	1
1,4-Difluorobenzene (Surr)	132	S1+	70 - 130				02/15/24 15:58	02/22/24 18:16	1

Lab Sample ID: MB 880-73881/5-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 73858							Prep Batch: 73881		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		70 - 130				02/22/24 15:27	02/23/24 08:04	1
1,4-Difluorobenzene (Surr)	113		70 - 130				02/22/24 15:27	02/23/24 08:04	1

Lab Sample ID: LCS 880-73881/1-A							Client Sample ID: Lab Control Sample		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 73858							Prep Batch: 73881		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	0.100	0.09462		mg/Kg		95	70 - 130		
Toluene	0.100	0.09802		mg/Kg		98	70 - 130		
Ethylbenzene	0.100	0.08353		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene	0.200	0.1861		mg/Kg		93	70 - 130		
o-Xylene	0.100	0.08806		mg/Kg		88	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	108		70 - 130						
1,4-Difluorobenzene (Surr)	117		70 - 130						

Lab Sample ID: LCSD 880-73881/2-A							Client Sample ID: Lab Control Sample Dup		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 73858							Prep Batch: 73881		
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.09832		mg/Kg		98	70 - 130	4	35

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QC Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

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

Lab Sample ID: LCSD 880-73881/2-A

Matrix: Solid

Analysis Batch: 73858

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Toluene	0.100	0.1095		mg/Kg		110	70 - 130		11	35
Ethylbenzene	0.100	0.1098		mg/Kg		110	70 - 130		27	35
m-Xylene & p-Xylene	0.200	0.2145		mg/Kg		107	70 - 130		14	35
o-Xylene	0.100	0.09264		mg/Kg		93	70 - 130		5	35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: MB 880-73912/5-A

Matrix: Solid

Analysis Batch: 73907

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 73912

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		02/23/24 08:11	02/23/24 14:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/23/24 08:11	02/23/24 14:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/23/24 08:11	02/23/24 14:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/23/24 08:11	02/23/24 14:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/23/24 08:11	02/23/24 14:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/23/24 08:11	02/23/24 14:01	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	75		70 - 130	02/23/24 08:11	02/23/24 14:01	1
1,4-Difluorobenzene (Surr)	102		70 - 130	02/23/24 08:11	02/23/24 14:01	1

Lab Sample ID: LCS 880-73912/1-A

Matrix: Solid

Analysis Batch: 73907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 73912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Benzene	0.100	0.1177		mg/Kg		118	70 - 130	
Toluene	0.100	0.09419		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.09140		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	0.200	0.1816		mg/Kg		91	70 - 130	
o-Xylene	0.100	0.09206		mg/Kg		92	70 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-73912/2-A

Matrix: Solid

Analysis Batch: 73907

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73912

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Benzene	0.100	0.1059		mg/Kg		106	70 - 130		11	35
Toluene	0.100	0.09157		mg/Kg		92	70 - 130		3	35
Ethylbenzene	0.100	0.09162		mg/Kg		92	70 - 130		0	35

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QC Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

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

Lab Sample ID: LCSD 880-73912/2-A

Matrix: Solid

Analysis Batch: 73907

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73912

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
m-Xylene & p-Xylene	0.200	0.1808		mg/Kg		90	70 - 130	0		35
o-Xylene	0.100	0.09140		mg/Kg		91	70 - 130	1		35
		LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	89		70 - 130							
1,4-Difluorobenzene (Surr)	103		70 - 130							

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

Lab Sample ID: MB 880-73547/1-A

Matrix: Solid

Analysis Batch: 73598

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 73547

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/19/24 15:17	02/20/24 08:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/19/24 15:17	02/20/24 08:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/19/24 15:17	02/20/24 08:02	1
		MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared		Analyzed		Dil Fac	
1-Chlorooctane	130		70 - 130	02/19/24 15:17		02/20/24 08:02		1	
o-Terphenyl	117		70 - 130	02/19/24 15:17		02/20/24 08:02		1	

Lab Sample ID: LCS 880-73547/2-A

Matrix: Solid

Analysis Batch: 73598

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 73547

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	1030		mg/Kg		103	70 - 130			
Diesel Range Organics (Over C10-C28)	1000	1035		mg/Kg		104	70 - 130			
		LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	122		70 - 130							
o-Terphenyl	129		70 - 130							

Lab Sample ID: LCSD 880-73547/3-A

Matrix: Solid

Analysis Batch: 73598

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73547

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	955.9		mg/Kg		96	70 - 130	7		20
Diesel Range Organics (Over C10-C28)	1000	950.5		mg/Kg		95	70 - 130	9		20

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QC Sample Results

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

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

Lab Sample ID: LCSD 880-73547/3-A
Matrix: Solid
Analysis Batch: 73598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73547

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	110		70 - 130
o-Terphenyl	108		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73608/1-A
Matrix: Solid
Analysis Batch: 73693

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<5.00	U	5.00		mg/Kg			02/20/24 23:53	1

Lab Sample ID: LCS 880-73608/2-A
Matrix: Solid
Analysis Batch: 73693

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.7		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-73608/3-A
Matrix: Solid
Analysis Batch: 73693

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	258.8		mg/Kg		104	90 - 110	3	20

QC Association Summary

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Total/NA	Solid	8021B	73881
890-6202-2	BG - 2	Total/NA	Solid	8021B	73881
890-6202-3	BG - 3	Total/NA	Solid	8021B	73881
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
MB 880-73881/5-A	Method Blank	Total/NA	Solid	8021B	73881
LCS 880-73881/1-A	Lab Control Sample	Total/NA	Solid	8021B	73881
LCSD 880-73881/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73881

Prep Batch: 73881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Total/NA	Solid	5035	
890-6202-2	BG - 2	Total/NA	Solid	5035	
890-6202-3	BG - 3	Total/NA	Solid	5035	
MB 880-73881/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73881/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73881/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 73907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-4	BG - 4	Total/NA	Solid	8021B	73912
MB 880-73912/5-A	Method Blank	Total/NA	Solid	8021B	73912
LCS 880-73912/1-A	Lab Control Sample	Total/NA	Solid	8021B	73912
LCSD 880-73912/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73912

Prep Batch: 73912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-4	BG - 4	Total/NA	Solid	5035	
MB 880-73912/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73912/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73912/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 73969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Total/NA	Solid	Total BTEX	
890-6202-2	BG - 2	Total/NA	Solid	Total BTEX	
890-6202-3	BG - 3	Total/NA	Solid	Total BTEX	
890-6202-4	BG - 4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Total/NA	Solid	8015NM Prep	
890-6202-2	BG - 2	Total/NA	Solid	8015NM Prep	
890-6202-3	BG - 3	Total/NA	Solid	8015NM Prep	
890-6202-4	BG - 4	Total/NA	Solid	8015NM Prep	
MB 880-73547/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

GC Semi VOA (Continued)

Prep Batch: 73547 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-73547/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73547/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Total/NA	Solid	8015B NM	73547
890-6202-2	BG - 2	Total/NA	Solid	8015B NM	73547
890-6202-3	BG - 3	Total/NA	Solid	8015B NM	73547
890-6202-4	BG - 4	Total/NA	Solid	8015B NM	73547
MB 880-73547/1-A	Method Blank	Total/NA	Solid	8015B NM	73547
LCS 880-73547/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73547
LCSD 880-73547/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73547

Analysis Batch: 73762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Total/NA	Solid	8015 NM	
890-6202-2	BG - 2	Total/NA	Solid	8015 NM	
890-6202-3	BG - 3	Total/NA	Solid	8015 NM	
890-6202-4	BG - 4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Soluble	Solid	DI Leach	
890-6202-2	BG - 2	Soluble	Solid	DI Leach	
890-6202-3	BG - 3	Soluble	Solid	DI Leach	
890-6202-4	BG - 4	Soluble	Solid	DI Leach	
MB 880-73608/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73608/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73608/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 73693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6202-1	BG - 1	Soluble	Solid	300.0	73608
890-6202-2	BG - 2	Soluble	Solid	300.0	73608
890-6202-3	BG - 3	Soluble	Solid	300.0	73608
890-6202-4	BG - 4	Soluble	Solid	300.0	73608
MB 880-73608/1-A	Method Blank	Soluble	Solid	300.0	73608
LCS 880-73608/2-A	Lab Control Sample	Soluble	Solid	300.0	73608
LCSD 880-73608/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73608

Lab Chronicle

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Client Sample ID: BG - 1

Date Collected: 02/15/24 00:00

Date Received: 02/16/24 08:56

Lab Sample ID: 890-6202-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	73881	02/22/24 15:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 11:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73969	02/23/24 11:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73762	02/20/24 16:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 16:49	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73608	02/20/24 08:04	SA	EET MID
Soluble	Analysis	300.0		5			73693	02/21/24 02:14	CH	EET MID

Client Sample ID: BG - 2

Date Collected: 02/15/24 00:00

Date Received: 02/16/24 08:56

Lab Sample ID: 890-6202-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73881	02/22/24 15:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 11:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73969	02/23/24 11:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73762	02/20/24 17:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 17:13	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73608	02/20/24 08:04	SA	EET MID
Soluble	Analysis	300.0		1			73693	02/21/24 02:35	CH	EET MID

Client Sample ID: BG - 3

Date Collected: 02/15/24 00:00

Date Received: 02/16/24 08:56

Lab Sample ID: 890-6202-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73881	02/22/24 15:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 12:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73969	02/23/24 12:02	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73762	02/20/24 17:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 17:38	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73608	02/20/24 08:04	SA	EET MID
Soluble	Analysis	300.0		1			73693	02/21/24 02:41	CH	EET MID

Client Sample ID: BG - 4

Date Collected: 02/15/24 00:00

Date Received: 02/16/24 08:56

Lab Sample ID: 890-6202-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	73912	02/23/24 15:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73907	02/23/24 17:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73969	02/23/24 17:32	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Client Sample ID: BG - 4
Date Collected: 02/15/24 00:00
Date Received: 02/16/24 08:56

Lab Sample ID: 890-6202-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			73762	02/20/24 18:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 18:02	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73608	02/20/24 08:04	SA	EET MID
Soluble	Analysis	300.0		1			73693	02/21/24 02:48	CH	EET MID

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

Accreditation/Certification Summary

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: H & R Enterprises
Project/Site: FEDERAL 13 COM 2 (FED13)

Job ID: 890-6202-1
SDG: Eddy

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6202-1	BG - 1	Solid	02/15/24 00:00	02/16/24 08:56	0 - 1'
890-6202-2	BG - 2	Solid	02/15/24 00:00	02/16/24 08:56	0 - 1'
890-6202-3	BG - 3	Solid	02/15/24 00:00	02/16/24 08:56	0 - 1'
890-6202-4	BG - 4	Solid	02/15/24 00:00	02/16/24 08:56	0 - 1'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

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

Work Order No:

www.xenco.com Page _____ of _____

Chain of Custody

Project Manager:	M. Collier	Bill to: (if different)	Linmarx Energy
Company Name:	H&B Enterprises	Company Name:	Leci Lrig
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAP <input type="checkbox"/> Other: _____

Project Name:	Ferry 3 Cam 2 (Fall 13)		Turn Around
Project Number:		<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush
Project Location:	Edley	Due Date:	
Sampler's Name:	R. Be 11	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			
SAMPLE RECEIPT		Temp Blank:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	7110000
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	34
Total Containers:		Corrected Temperature:	3.2

Parameters	Pres. Code	ANAL.
TEX		
PH		
chlorides		

PRESERVATIVE CODES				ANALYSIS REQUEST			
None:	NO	DI Water:	H ₂ O				
Coal		MeOH:	Me				
C		HNO ₃ :	HN				
: H ₂		NaOH:	Na				
4: HP							
O	4: NABIS						
2: O ₃ :	NaSO ₃						
Zn Acetate:	NaOH:	Zn					
NaOH:	Ascorbic Acid:	SAPC					

[illegible]

Total 200.7 / 6010	200.8 / 6020:	
8RCRA 13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCPL / SPLP 6010 : 8RCRA 5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Byrdell</i>	<i>B. Smith</i>	2/11/08 8:56			

Revised Date 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: H & R Enterprises

Job Number: 890-6202-1

SDG Number: Eddy

Login Number: 6202

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: H & R Enterprises

Job Number: 890-6202-1
SDG Number: Eddy

Login Number: 6202
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/19/24 08:27 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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

QUESTIONS

Action 313377

QUESTIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:
	162683
	Action Number:
	313377
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nGEG0420547165
Incident Name	NGEG0420547165 FEDERAL 13 COM #002 (7.23.2004) @ 30-015-33344
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-33344] FEDERAL 13 COM #002

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Federal 13 Com #002 (7.23.2004)
Date Release Discovered	07/23/2004
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Cause: Equipment Failure Other (Specify) Diesel Released: 19 BBL Recovered: 0 BBL Lost: 19 BBL.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 313377

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:	162683
	Action Number:	313377
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 02/12/2024
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QUESTIONS, Page 3

Action 313377

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:	162683
	Action Number:	313377
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 300 and 500 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 500 and 1000 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	480
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	68.1
GRO+DRO	(EPA SW-846 Method 8015M)	16.9
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	08/07/2023
On what date will (or did) the final sampling or liner inspection occur	08/07/2023
On what date will (or was) the remediation complete(d)	08/07/2023
What is the estimated surface area (in square feet) that will be reclaimed	400
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 313377

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:	162683
	Action Number:	313377
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Yes
Other Non-listed Remedial Process. Please specify	No remediation required, site was previously remediated and already reclaimed. Review email correspondence, this is 1 of 3 spill incidents onsite. Delineated vertically to confirm that site was previously remediated properly to fullest extents.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 02/12/2024
--	---

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 313377

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 313377
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS, Page 6

Action 313377

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:
	162683
	Action Number:
	313377
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	320105
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	02/07/2024
What was the (estimated) number of samples that were to be gathered	4
What was the sampling surface area in square feet	200

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	No remediation required, site was previously remediated and already reclaimed. Review email correspondence, this is 1 of 3 spill incidents onsite. Delineated vertically to confirm that site was previously remediated properly to fullest extents.

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

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

I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 02/12/2024
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Action 313377

QUESTIONS (continued)

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	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 313377

CONDITIONS

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	Action Number: 313377
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CONDITIONS

Created By	Condition	Condition Date
crystal.walker	None	3/22/2024