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

Site Assessment and Closure Report

Laughlin #007
Incident# 1RP-4877 - nOY1732449643
Lea County, New Mexico

Prepared For:

Cimarex Energy Co. of Colorado
600 Marienfeld St.
Midland, TX 79701

Prepared By:

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

March 20, 2023

Mr. Jim Griswold
NMOCD
1220 S. St. Francis Drive
Santa Fe, NM 87505

Subject: **Site Assessment and Closure Report**
Laughlin #007
Lea County, NM

Dear Mr. Griswold,

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

Site Information

The Laughlin #007 is located approximately 2.3 miles South of Monument, New Mexico. The legal location for this release is Unit Letter K, Section 4, Township 20 South and Range 37 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.599231 North and -103.259449 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 Ratliff-Wink fine sandy loams, 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 not 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 22-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	**22 Feet/BGS**

☐ Yes ☒ No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
☐ Yes ☒ No	Within 200 feet of any lakebed, sinkhole, or a playa lake
☐ Yes ☒ No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
☐ Yes ☒ 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
☐ Yes ☒ No	Within 1000 feet of any freshwater well or spring
☐ Yes ☒ 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
☐ Yes ☒ No	Within 300 feet of a wetland
☐ Yes ☒ No	Within the area overlying a subsurface mine
☐ Yes ☒ No	Within an unstable area
☐ Yes ☒ No	Within a 100-year floodplain

As this release occurred in an area with a depth to groundwater of less than 50-feet BGS, the closure criteria for this site are 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 October 31, 2017, it was discovered that the check valve on the water transfer pump malfunctioned in the open position allowing water to flow into the water tank then overflowing into the containment. A total of 25 barrels of produced water was released, with 15 barrels being recovered.

Site Assessment and Sampling Activities

H&R mobilized personnel to begin site assessment, and sampling activities. Grab samples were obtained by way of hand auger, from the old tank battery as well as outside the old tank battery area on all 4 sides. Samples were transported to Cardinal Laboratory for analysis, and the results are presented in the following data table. Initial site assessment sampling locations are illustrated on Site Assessment Map in Appendix I. Photographs of the sample locations 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
S-1	3/9/2023	0-1'	ND	ND	ND	ND	ND	0	32
		2'	ND	ND	ND	ND	ND	0	16
		3'	ND	ND	ND	ND	ND	0	ND
		4'	ND	ND	ND	ND	ND	0	ND
S-2	3/9/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	ND	ND	0	ND
		3'	ND	ND	ND	ND	ND	0	ND
		4'	ND	ND	ND	ND	ND	0	ND
S-3	3/9/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	ND	ND	0	ND
		3'	ND	ND	ND	ND	ND	0	ND
		4'	ND	ND	ND	ND	ND	0	ND
H-1	3/9/2023	0-1'	ND	ND	ND	ND	ND	0	32
H-2	3/9/2023	0-1'	ND	ND	ND	ND	ND	0	80
H-3	3/9/2023	0-1'	ND	ND	ND	ND	ND	0	96
H-4	3/9/2023	0-1'	ND	ND	ND	ND	ND	0	48

ND = Analyte Not Detected S = Vertical Sample H = Horizontal Sample

Based on the results of our site assessment, all contaminated soil was removed during the reclamation process and no remediation is needed.

Closure

Based on the site assessment 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
Environmental Project Manager

Attachments:

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

APPENDIX I

SITE MAPS

KARST MAP

TOPOGRAPHIC MAP

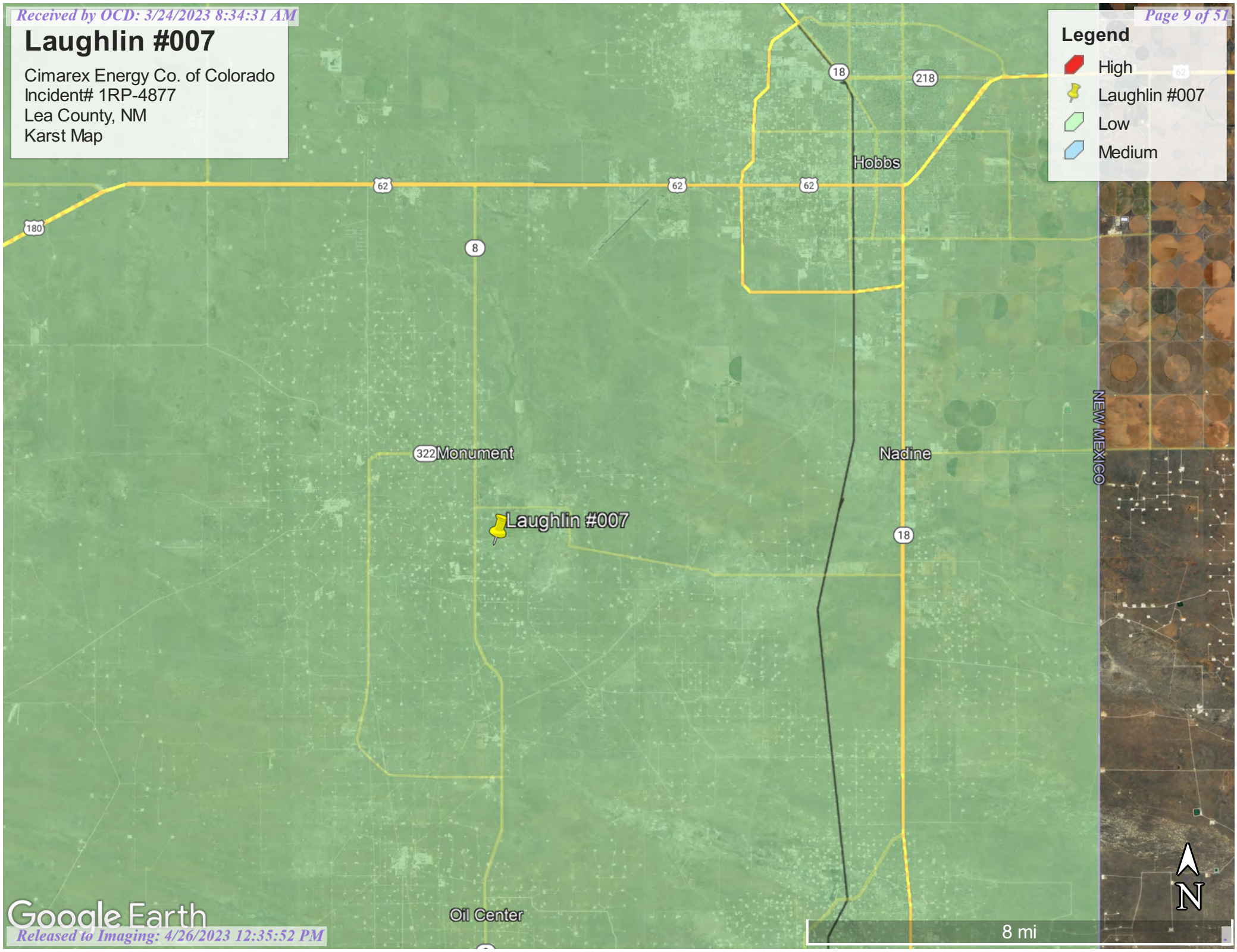
LOCATOR MAP

Laughlin #007

Cimarex Energy Co. of Colorado
Incident# 1RP-4877
Lea County, NM
Site Assesment Map

Laughlin #007

Cimarex Energy Co. of Colorado
Incident# 1RP-4877
Lea County, NM
Karst Map

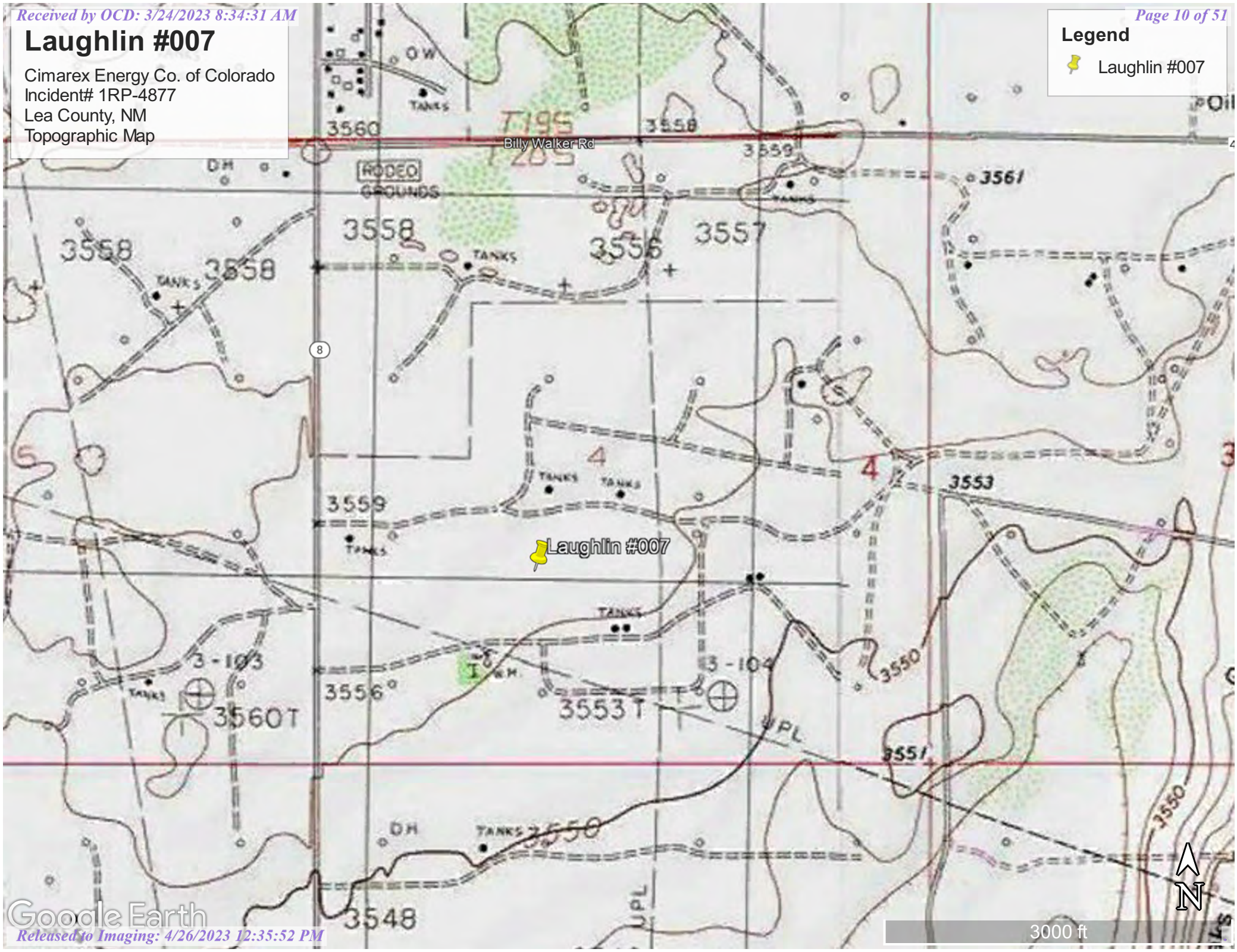


Laughlin #007

Cimarex Energy Co. of Colorado
Incident# 1RP-4877
Lea County, NM
Topographic Map

Legend

Laughlin #007



Laughlin #007

Cimarex Energy Co. of Colorado
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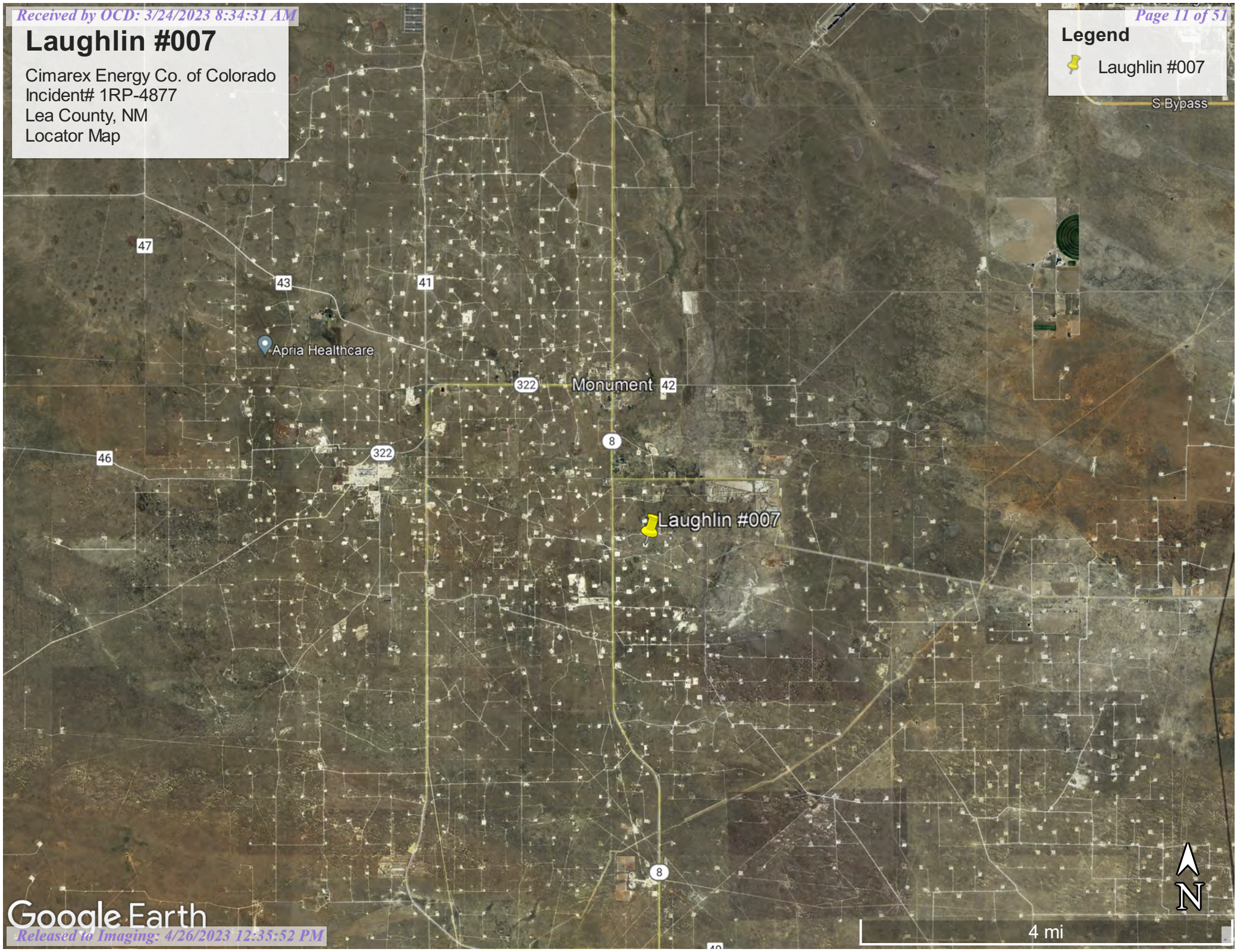
Lea County, NM
Locator Map

Legend

Laughlin #007



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 Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 05980		L	LE	1	4	3	04	20S	37E	663319	3608017*	217	95		
L 10069		L	LE			1	04	20S	37E	663205	3608920*	717	39	22	17
L 02139		L	LE	2	2	2	08	20S	37E	662721	3607604*	906	80	38	42
L 05447		L	LE		2	2	05	20S	37E	662594	3609117*	1189	50	28	22
L 09779		L	LE	2	2	2	05	20S	37E	662693	3609216*	1206	50	40	10
L 02278		L	LE		3	4	05	20S	37E	662212	3607902*	1213	65	37	28
L 02488		L	LE		3	2	05	20S	37E	662199	3608709*	1277	63	32	31
L 01904		L	LE	3	3	3	33	19S	37E	662888	3609430*	1302	82	29	53
L 03988	R	L	LE	3	3	3	33	19S	37E	662888	3609430*	1302	75	29	46
L 04448 POD2		L	LE	3	3	3	33	19S	37E	662888	3609430*	1302	46	36	10
L 08501		L	LE	4	3	4	33	19S	37E	663892	3609441*	1318	43	29	14
L 03993		L	LE		3	3	33	19S	37E	662989	3609531*	1363	75	29	46
L 04842		L	LE		3	3	33	19S	37E	662989	3609531*	1363	60	35	25
L 09129		L	LE		3	4	33	19S	37E	663793	3609542*	1379	52	43	9
L 07620		L	LE	4	4	2	08	20S	37E	662728	3607000*	1388	70	27	43
L 07620 S		L	LE	4	4	2	08	20S	37E	662728	3607000*	1388	75	35	40
L 09127		L	LE	3	4	4	33	19S	37E	664094	3609447*	1414	52	40	12
L 09128		L	LE	1	3	3	33	19S	37E	662888	3609630*	1489	30	26	4
L 01256		L	LE	3	4	4	32	19S	37E	662486	3609424*	1496	46	32	14
L 04405		L	LE			3	33	19S	37E	663190	3609732*	1519	45	37	8
L 04806		L	LE			3	33	19S	37E	663190	3609732*	1519	60	35	25
L 04809		L	LE			3	33	19S	37E	663190	3609732*	1519	60	35	25
L 04929		L	LE			3	33	19S	37E	663190	3609732*	1519	55	27	28
L 06761		L	LE			3	33	19S	37E	663190	3609732*	1519	50	27	23
L 00744		L	LE	4	4	4	33	19S	37E	664294	3609447*	1525	80	42	38
L 00744 S		L	LE	4	4	4	33	19S	37E	664294	3609447*	1525	90	26	64
L 03738		L	LE		4	4	33	19S	37E	664195	3609548*	1553	72	31	41
L 07619		L	LE	2	2	4	08	20S	37E	662734	3606797*	1567	70	30	40
L 10150		L	LE		1	4	09	20S	37E	663842	3606715*	1578	46	30	16
L 02102		L	LE		4	3	05	20S	37E	661809	3607897*	1606	70	46	24

L 01253		L	LE	1	3	2	08	20S	37E	662125	3607195*		1624	81	45	36
L 07513 S2		L	LE			4	33	19S	37E	663994	3609743*		1636	45	35	10
L 07513		L	LE	3	1	4	33	19S	37E	663685	3609843*		1646	45	35	10
L 09681		L	LE	3	1	4	33	19S	37E	663685	3609843*		1646	52	39	13
L 00744 S3		L	LE	2	4	4	33	19S	37E	664294	3609647*		1689	50	27	23
L 09594		L	LE		2	4	08	20S	37E	662635	3606698*		1699	80		
L 03938		L	LE			4	32	19S	37E	662386	3609719*		1795	40	25	15
L 02483		L	LE	4	4	1	08	20S	37E	661922	3606990*		1911	84	34	50
L 07513 S		L	LE	3	1	3	34	19S	37E	664490	3609855*		1971	44	25	19
L 09590		L	LE			4	08	20S	37E	662440	3606491*		1973	70	35	35
L 09590	R	L	LE			4	08	20S	37E	662440	3606491*		1973	70	35	35
L 09590 POD2		L	LE			4	08	20S	37E	662440	3606491*		1973	66	30	36
L 12457 POD1		L	LE	4	4	3	34	19S	37E	665007	3609413		2013	74	60	14
L 01450		L	LE		3	1	05	20S	37E	661393	3608698*		2043	80	20	60
L 01817		L	LE		1	4	32	19S	37E	662178	3609920*		2078	85	12	73
L 00744 S2		L	LE			3	34	19S	37E	664798	3609755*		2085	50		
L 01572 POD1		L	LE	1	3	3	05	20S	37E	661305	3607991*		2089	70		
L 10166 POD1		L	LE	4	4	3	34	19S	37E	665098	3609459*		2114	35		
L 10166 POD2		L	LE	4	4	3	34	19S	37E	665098	3609459*		2114	35		
L 10166 POD3		L	LE	4	4	3	34	19S	37E	665098	3609459*		2114	35		
L 02497		L	LE	3	3	3	05	20S	37E	661305	3607791*		2121	75	35	40
L 02463		L	LE	1	2	3	08	20S	37E	661729	3606787*		2190	86	30	56
L 07626		L	LE	1	1	4	32	19S	37E	662077	3610019*		2218	30		
L 00010		L	LE		4	2	32	19S	37E	662574	3610327*		2251			
L 02274		L	LE		3	1	08	20S	37E	661420	3607085*		2268	70	38	32
L 10397		L	LE			1	33	19S	37E	663177	3610534*		2317	34	13	21
L 05049		L	LE			3	32	19S	37E	661581	3609707*		2331	50	27	23
L 04619		L	LE	3	2	4	06	20S	37E	660897	3608188*		2484	86	36	50
L 06796		L	LE		1	2	33	19S	37E	663773	3610747*		2552	80		
L 13491 POD1		L	LE	3	1	3	32	19S	37E	661329	3609819		2599	30		
L 01145 POD1		L	LE	4	1	4	06	20S	37E	660695	3608182*		2686	75	35	40
L 02553		L	LE	4	3	4	06	20S	37E	660701	3607779*		2717	85	40	45
L 00743 POD6		L	LE		1	1	34	19S	37E	664578	3610759*		2802	44	21	23
L 00743 POD6	R	L	LE		1	1	34	19S	37E	664578	3610759*		2802	44	21	23
L 00743 S		L	LE		1	1	34	19S	37E	664578	3610759*		2802	46	21	25
L 00743 S	R	L	LE		1	1	34	19S	37E	664578	3610759*		2802	46	21	25
L 00743 S2		L	LE		1	1	34	19S	37E	664578	3610759*		2802	46	21	25
L 00743 S2	R	L	LE		1	1	34	19S	37E	664578	3610759*		2802	46	21	25
L 09768		L	LE		1	1	34	19S	37E	664578	3610759*		2802	39	24	15

L 10391		L	LE		1	1	34	19S	37E	664578	3610759*		2802	44	21	23
L 03380		L	LE	2	1	2	32	19S	37E	662265	3610822*		2826	40	35	5
L 08803		L	LE	1	1	1	34	19S	37E	664477	3610858*		2851	41	25	16
L 02460		L	LE		1	2	07	20S	37E	660609	3607477*		2871	82	38	44
L 00743		L	LE	2	1	1	34	19S	37E	664677	3610858*		2934	40	20	20
L 00743	R	L	LE	2	1	1	34	19S	37E	664677	3610858*		2934	40	20	20
L 00743 S4		L	LE	2	1	1	34	19S	37E	664677	3610858*		2934	40	20	20
L 00743 S4	R	L	LE	2	1	1	34	19S	37E	664677	3610858*		2934	40	20	20
L 10403		L	LE	2	1	1	34	19S	37E	664677	3610858*		2934	41	20	21
L 03982		L	LE		3	3	28	19S	37E	662964	3611135*		2939	43	31	12
L 02533		L	LE		3	2	07	20S	37E	660616	3607074*		2995	82	34	48

Average Depth to Water: **30 feet**

Minimum Depth: **12 feet**

Maximum Depth: **60 feet**

Record Count: 80

Basin/County Search:

County: Lea

UTMNAD83 Radius Search (in meters):

Easting (X): 663381.37 **Northing (Y):** 3608225 **Radius:** 3000

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

3/20/23 8:11 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Lea County, New Mexico

MN—Ratliff-Wink fine sandy loams

Map Unit Setting

National map unit symbol: dmqf
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ratliff and similar soils: 45 percent
Wink and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ratliff

Setting

Landform: Plains
Landform position (three-dimensional): Dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous alluvium and/or calcareous eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 4 inches: fine sandy loam
Bw - 4 to 22 inches: clay loam
Bk - 22 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: B
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Description of Wink

Setting

Landform: Plains
Landform position (three-dimensional): Dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous sandy alluvium and/or calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 12 inches: fine sandy loam
Bk - 12 to 23 inches: sandy loam
BCk - 23 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD004NM - Sandy
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 6 percent
Ecological site: R070BC022NM - Sandhills
Hydric soil rating: No

Maljamar

Percent of map unit: 5 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Palomas

Percent of map unit: 4 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 19, Sep 8, 2022

National Flood Hazard Layer FIRMette

FEMA

103°15'51"W 32°36'13"N

103°15'14"W 32°35'43"N

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

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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 3/20/2023 at 10:15 AM 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

INITIAL C-141

FINAL C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Cimarex Energy Co. of Colorado	Contact: Gloria Garza
Address: 600 N Marienfeld Ste 600 Midland TX	Telephone No. 432-234-3204
Facility Name: Laughlin 7	Facility Type: Battery

Surface Owner: Fee	Mineral Owner:	API No. 30-025-35891

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	4	20S	37E	1650	S	1875	W	Lea

Latitude 32.59951 __Longitude -103.25903__

NATURE OF RELEASE

Type of Release : Produced water	Volume : 25 BBLS	Volume Recovered: 15 BBLS
Source of Release : Check valve malfunctioned	Date and Hour of Occurrence: 10/31/2017	Date and Hour of Discovery: 10/31/2017
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Olivia Yu, Kristen Houston, and Amber Groves	
By Whom? Gloria Garza	Date and Hour: 11/1/2017 2:39 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By Olivia Yu at 1:26 pm, Nov 20, 2017

Describe Cause of Problem and Remedial Action Taken.*
Check valve on water transfer pump malfunctioned in the open position after well was shut in on tubing and casing allowing water to flow into water tank.

Describe Area Affected and Cleanup Action Taken.*
The affected area is the ground surrounding the tanks. All fluids were contained within firewall.
We will delineate and submit a work plan to remediate.

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

Signature: gloria garza	OIL CONSERVATION DIVISION
Printed Name: Gloria Garza	Approved by Environmental Specialist:
Title: ESH Specialist	Approval Date: 11/20/2017 Expiration Date:
E-mail Address: ggarza@cimarex.com	Conditions of Approval: see attached directive Attached ☑
Date: 11.20.2017 Phone: 432-234-3204	

Attach Additional Sheets If Necessary

1RP-4877

pOY1732449824

nOY1732449643

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _11/20/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4877__ has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _12/20/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
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: Laci Lo Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 03/27/2023

State of New Mexico
Oil Conservation Division

Incident ID	
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: Laci Lo _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 03/27/2023

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: Jennifer Nobui Date: 04/26/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

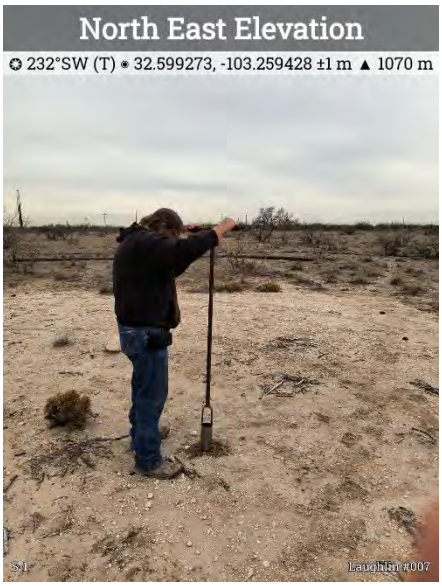
APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

SAMPLE LOCATION PHOTOGRAPHS

S-1



S-2

S-3

PHOTOGRAPHIC DOCUMENTATION

H-1

H-2

H-3

H-4

APPENDIX V

LABORATORY REPORTS

CARDINAL Laboratories

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

March 15, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: LAUGHLIN #007 (LAU)

Enclosed are the results of analyses for samples received by the laboratory on 03/10/23 11:17.

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 accreditated 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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 1 0-1' (H231111-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	**32.0**	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *84.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 1 2' (H231111-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	**16.0**	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *90.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *117 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 1 3' (H231111-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *81.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 1 4' (H231111-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *82.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 2 0-1' (H231111-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *89.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *114 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 2 2' (H231111-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *88.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *114 %* *49.1-148*

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CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 2 3' (H231111-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *93.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *117 %* *49.1-148*

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CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 2 4' (H231111-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	97.1	2.00	8.97	
Toluene*	<0.050	0.050	03/13/2023	ND	1.99	99.4	2.00	9.90	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	1.97	98.3	2.00	8.98	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.09	102	6.00	10.1	
Total BTEX	<0.300	0.300	03/13/2023	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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *85.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *110 %* *49.1-148*

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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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 3 0-1' (H231111-09)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *128 %* *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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2023	ND	200	100	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/10/2023	ND	239	119	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	03/10/2023	ND					

Surrogate: 1-Chlorooctane *84.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

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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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 3 2' (H231111-10)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *131 %* *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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/11/2023	ND	229	114	200	0.970	
DRO >C10-C28*	<10.0	10.0	03/11/2023	ND	224	112	200	0.100	
EXT DRO >C28-C36	<10.0	10.0	03/11/2023	ND					

Surrogate: 1-Chlorooctane *92.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

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CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 3 3' (H231111-11)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *132 %* *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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/11/2023	ND	229	114	200	0.970	
DRO >C10-C28*	<10.0	10.0	03/11/2023	ND	224	112	200	0.100	
EXT DRO >C28-C36	<10.0	10.0	03/11/2023	ND					

Surrogate: 1-Chlorooctane *93.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *106 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: S - 3 4' (H231111-12)

BTEX 8021B mg/kg Analyzed By: JH/ S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *135 %* *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	<16.0	16.0	03/10/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/11/2023	ND	229	114	200	0.970	
DRO >C10-C28*	<10.0	10.0	03/11/2023	ND	224	112	200	0.100	
EXT DRO >C28-C36	<10.0	10.0	03/11/2023	ND					

Surrogate: 1-Chlorooctane *91.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

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CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: H - 1 0-1' (H231111-13)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *127 %* *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	**32.0**	16.0	03/10/2023	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	03/11/2023	ND	229	114	200	0.970	
DRO >C10-C28*	<10.0	10.0	03/11/2023	ND	224	112	200	0.100	
EXT DRO >C28-C36	<10.0	10.0	03/11/2023	ND					

Surrogate: 1-Chlorooctane *92.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *103 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: H - 2 0-1' (H231111-14)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *129 %* *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	**80.0**	16.0	03/10/2023	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	03/11/2023	ND	229	114	200	0.970	
DRO >C10-C28*	<10.0	10.0	03/11/2023	ND	224	112	200	0.100	
EXT DRO >C28-C36	<10.0	10.0	03/11/2023	ND					

Surrogate: 1-Chlorooctane *92.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

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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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: H - 3 0-1' (H231111-15)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *131 %* *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	**96.0**	16.0	03/10/2023	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	03/11/2023	ND	229	114	200	0.970	
DRO >C10-C28*	<10.0	10.0	03/11/2023	ND	224	112	200	0.100	
EXT DRO >C28-C36	<10.0	10.0	03/11/2023	ND					

Surrogate: 1-Chlorooctane *84.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.6 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/10/2023	Sampling Date:	03/09/2023
Reported:	03/15/2023	Sampling Type:	Soil
Project Name:	LAUGHLIN #007 (LAU)	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA COUNTY, NM		

Sample ID: H - 4 0-1' (H231111-16)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2023	ND	1.94	96.8	2.00	6.32	
Toluene*	<0.050	0.050	03/13/2023	ND	1.98	99.0	2.00	6.65	
Ethylbenzene*	<0.050	0.050	03/13/2023	ND	2.03	101	2.00	7.07	
Total Xylenes*	<0.150	0.150	03/13/2023	ND	6.38	106	6.00	7.12	
Total BTEX	<0.300	0.300	03/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *126 %* *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	03/10/2023	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	03/11/2023	ND	229	114	200	0.970	
DRO >C10-C28*	<10.0	10.0	03/11/2023	ND	224	112	200	0.100	
EXT DRO >C28-C36	<10.0	10.0	03/11/2023	ND					

Surrogate: 1-Chlorooctane *93.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: H&R Enterprises	**BILL TO**
Project Manager: Michael Collier	P.O. #:
Address:	Company: Cimarex Energy
City: State: Zip:	Attn: Laci Luig
Phone #: Fax #:	Address:
Project #: Project Owner: Cimarex Energy	City:
Project Name: Laughlin #007 (LAU)	State: Zip:
Project Location: Lea County, NM	Phone #:
Sampler Name: Roy Bell	Fax #:

FOR LAB USE ONLY Lab I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX	TPH	Chlorides
H231111																	
1	S-1 0-1'	G	1			X					X		3-9-23		X	X	X
2	S-1 2'																
3	S-1 3'																
4	S-1 4'																
5	S-2 0-1'																
6	S-2 2'																
7	S-2 3'																
8	S-2 4'																
9	S-3 0-1'																
10	S-3 2'																

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Roy Bell	Date: 3-10-23 Time: 7117	Received By: Tamara Oldaker	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS: PAGE 1 of 2
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 2.3 Corrected Temp. °C 1.7	Sample Condition Cool: Yes Intact: Yes / No No	CHECKED BY: (Initials)

Turnaround Time: Standard ☒ Bacteria (only) Sample Condition
Rush: ☐ Cool Intact Observed Temp. °C
Thermometer ID #113
Correction Factor -0.5°C
☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: H&R Enterprises	**BILL TO**
Project Manager: Michael Collier	P.O. #:
Address:	Company: Cimarex Energy
City: State: Zip:	Attn: Laci Luig
Phone #: Fax #:	Address:
Project #: Project Owner: Cimarex Energy	City:
Project Name: Laughlin #007 (LAU)	State: Zip:
Project Location: Lea County, NM	Phone #:
Sampler Name: Roy Bell	Fax #:

FOR LAB USE ONLY Lab I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX	TPH	Chlorides
H231111																	
11	S-3 3'	G	1			X					X		3-9-23		X	X	X
12	S-3 4'																
13	H-1 0-1'																
14	H-2 0-1'																
15	H-3 0-1'																
16	H-4 0-1'																

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Relinquished By:	Date: 3-10-23 Time: 7:17	Received By:	Verbal Result: ☐ Yes ☐ No	Add'l Phone #:
			All Results are emailed. Please provide Email address:	
Relinquished By:	Date: Time:	Received By:	REMARKS: PAGE 2 of 2	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 2.3 Corrected Temp. °C 1.7	Sample Condition Cool: Yes Intact: Yes / No No	CHECKED BY: (Initials)	Turnaround Time: Standard ☒ Bacteria (only) Sample Condition Rush: ☐ Cool: Intact: Observed Temp. °C Thermometer ID #113 Correction Factor -0.5°C ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

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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 200438

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld Street Midland, TX 79701	OGRID: 162683
	Action Number: 200438
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	4/26/2023