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TALON LPE

Closure Report

Riverbend Federal Com 12-13 Battery
Eddy County, New Mexico
Facility ID # fAPP2123545971
Incident # NAPP2313976458

Prepared For:

Cimarex Energy Co.
6001 Deauville Blvd. Suite 300N
Midland, Texas 79706

Prepared By:

Talon LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

June 27, 2023

NMOCD
506 W. Texas Ave
Artesia, NM 88210

BLM
620 East Greene St.
Carlsbad, NM 88220

Subject: **Closure Report**
Riverbend Federal Com 12-13 Battery
Eddy County, New Mexico
Facility ID # FAPP2123545971
Incident # NAPP2313976458

To Whom It May Concern,

Cimarex Energy Co. (Cimarex) contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The incident description, soil sampling results, remedial actions, and closure request are presented herein.

Site Information

The Riverbend Federal Com 12-13 Battery is located approximately 4.75 miles south east of Malaga, New Mexico. The legal location for this release is Unit Letter L, Section 01, Township 25 South, and Range 28 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.15837 and -104.04652. A Site Location Map is presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soil in this area is comprised of Russler loams with, 1 to 3 percent slopes. The referenced soil data is presented in Appendix II. Per the New Mexico Bureau of Geology and Mineral Resources, the local geology consists of Alluvium (Holocene to upper Pleistocene).

Groundwater and Site Characterization

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is more than one (1.41) miles from the site and is recorded at 40 feet below ground surface (bgs). Further research of the Bureau of Land Management Karst data indicates that this site is situated in a high potential Karst area. The FEMA data base locates the site in a minimal flood hazard zone.

Approximate Depth to Groundwater	40 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

With location in a high potential karst region and no depth to water source available that meets New Mexico Oil Conservation Division's (NMOCD) criteria within ½ mile of the site, the responsible party must therefore adhere to the cleanup criteria for this site of groundwater less than 50 feet bgs, Table I, NMOCD Rule 19.15.29 NMAC.

Closure Criteria for Soils Impacted by a Release			
Depth below horizontal extents of release to ground water less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Total Chlorides	EPA 300.0 or SM4500 Cl B	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 May 19, 2023, after replacing piping from tanks to the suction side on water transfer pump, a 2" 150 gasket was re-installed in a 3" 150 flange. This allowed a total of 30 barrels produced water to be released into containment and on to the facility pad. Approximately 28.5 barrels (bbls) of produced water was recovered. The initial C-141 was submitted to the NMOCD, can be reviewed under incident number NAPP2313976458. The site location map is presented in Appendix I.

Site Assessment Activities

On June 6, 2023, Cimarex performed an excavation walkthrough with Talon personnel to identify areas of concern. Contaminated area was painted by Talon to identify excavation area. With the approval of Cimarex delineation sampling was deemed unnecessary and composite sampling would be conducted at end of excavation.

Remediation Activities

On June 14, 2023, upon client authorization, Talon mobilized personnel to perform remediation activities. Talon excavated areas that exceeded the Table 1 standards. All soil samples collected were properly packaged in laboratory provided glassware, preserved on ice in the custody of Talon personnel, and the confirmation samples were transported to Cardinal Analytical for analysis of Total Chlorides (SM4500CL-B), Total Petroleum Hydrocarbons (TPH, EPA Method 8015B NM) and Volatile Organics (BTEX, EPA Method 8021B). Sample locations are shown on the attached Figure 1 in Appendix I, and the results of our sampling event are presented below in Table 1 and complete laboratory analytical reports are presented in Appendix V.

Table 1
Site Closure Analytical Data

Sample ID	Sample Date	Depth (BGS)	Benzene mg/kg	BTEX mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Chlorides mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			10 mg/kg	50 mg/kg	DRO + GRO + MRO combined = 100 mg/kg			100 mg/kg	600 mg/kg
C-1	6/14/2023	2'	ND	ND	ND	ND	ND	ND	208
SW-1	6/14/2023	(0-2)'	ND	ND	ND	ND	ND	ND	144
SW-2	6/14/2023	(0-2)'	ND	ND	ND	ND	ND	ND	288
SW-3	6/14/2023	(0-2)'	ND	ND	ND	ND	ND	ND	112
SW-4	6/14/2023	(0-2)'	ND	ND	ND	ND	ND	ND	384

NOTES:

BGS	Below Ground Surface
mg/kg	milligrams per kilogram
C	Confirmation Sample
SW	Sidewall Sample
ND	Analyte Not Detected

Highlighted cells indicate exceedance of NMOCD Table 1 Closure Criteria

Remedial Action Summary

- The impacted areas on location were excavated to depths of two (2) feet bgs. Talon field titrated soil samples for total chlorides to guide the vertical and horizontal extents of the excavation process.
- Pursuant to NMOCD guidance, confirmation soil samples were collected at 200 square foot intervals and analyzed for TPH, BTEX and Total Chlorides to ensure all other areas had reached NMOCD closure criteria.
- The excavated areas on the well pad were backfilled with new caliche, machine compacted, and contoured to match the surrounding location.
- Approximately 60 cubic yards of excavated material was transported to Lea Land Disposal, a NMOCD approved solid waste disposal facility.
- Photographic documentation is provided in Appendix IV.
- Copies of the Final C-141s are presented in Appendix III.

Closure

Based upon the completed remedial actions and confirmation sampling results, on behalf of Cimarex Energy Co., we respectfully request that no further actions be required and the incident closed.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

Talon/LPE

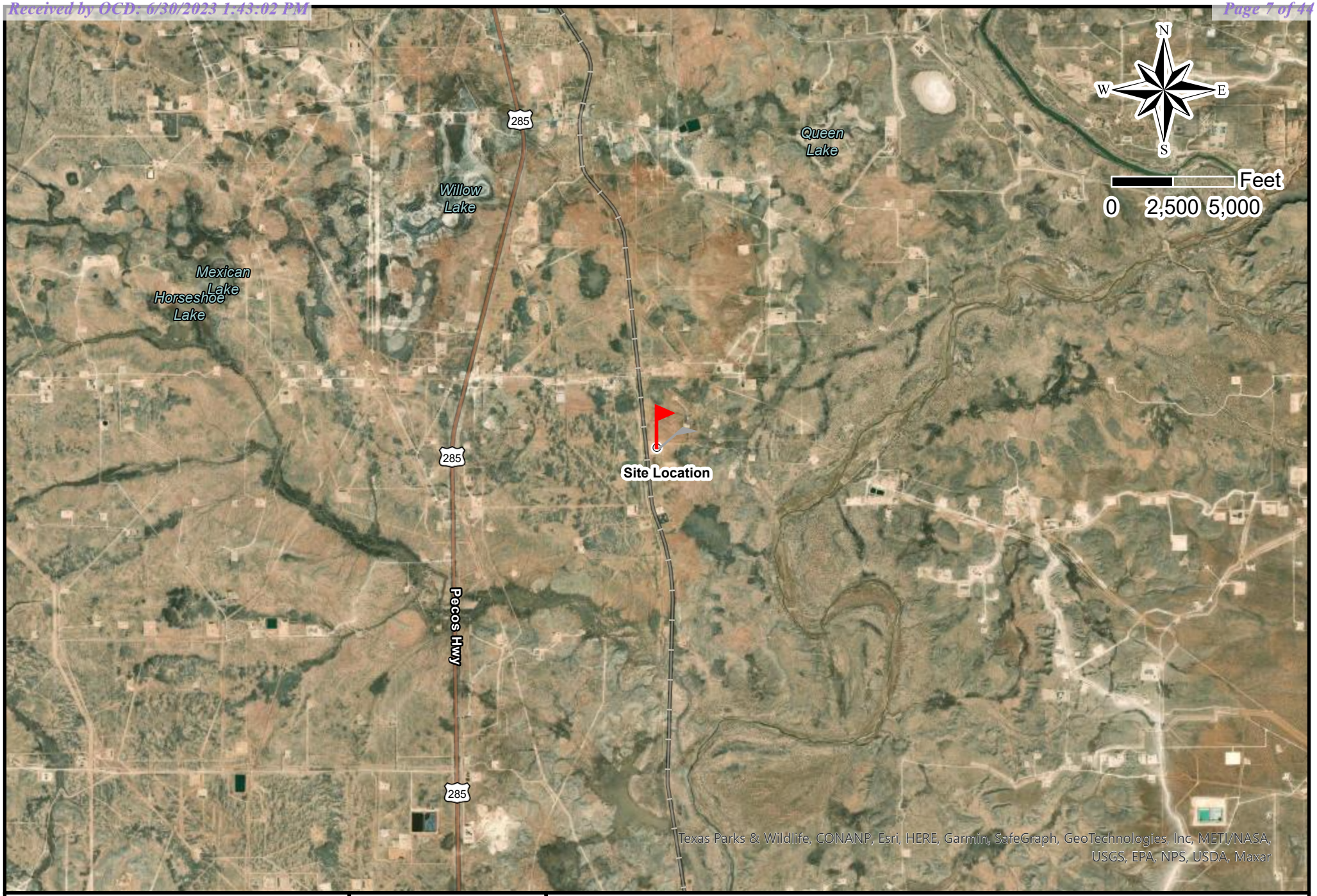
Chad Hensley
Project Manager

Attachments:

Appendix I	Site Maps
Appendix II	Groundwater Data, Soil Survey, FEMA Flood Map
Appendix III	C-141 Forms, NMOCD Correspondence, Liner Inspection
Appendix IV	Photographic Documentation
Appendix V	Laboratory Analytical Reports

Appendix I

Site Maps



TALON LPE

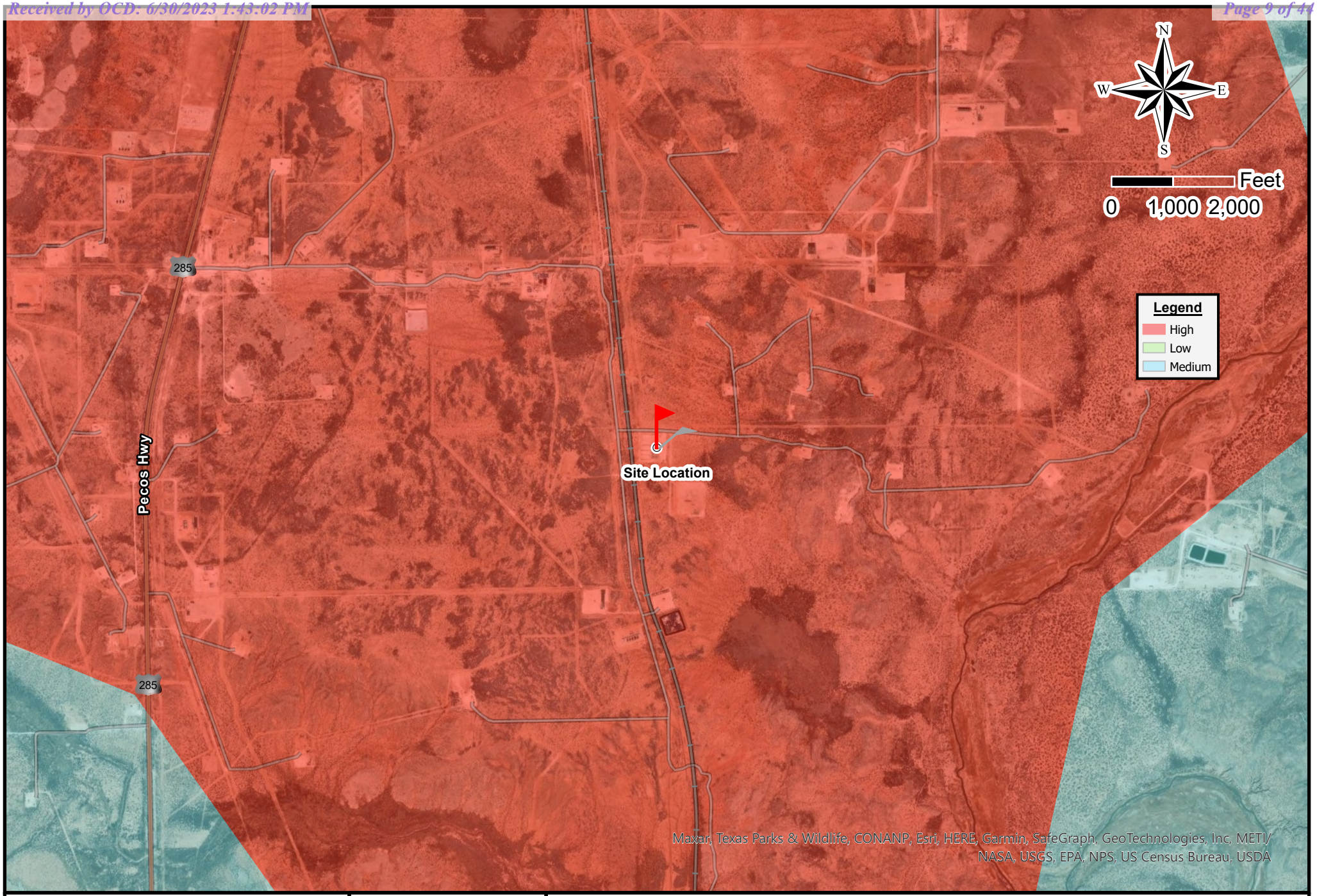
Drafted: 6/26/2023
1 in = 5,000 ft
Drafted By: IJR

Cimarex Energy Co.
Riverbend Federal Com 12-13 CTB
Eddy County, NM
Location Map

TALON LPE

Drafted: 6/26/2023
1 in = 50 ft
Drafted By: IJR

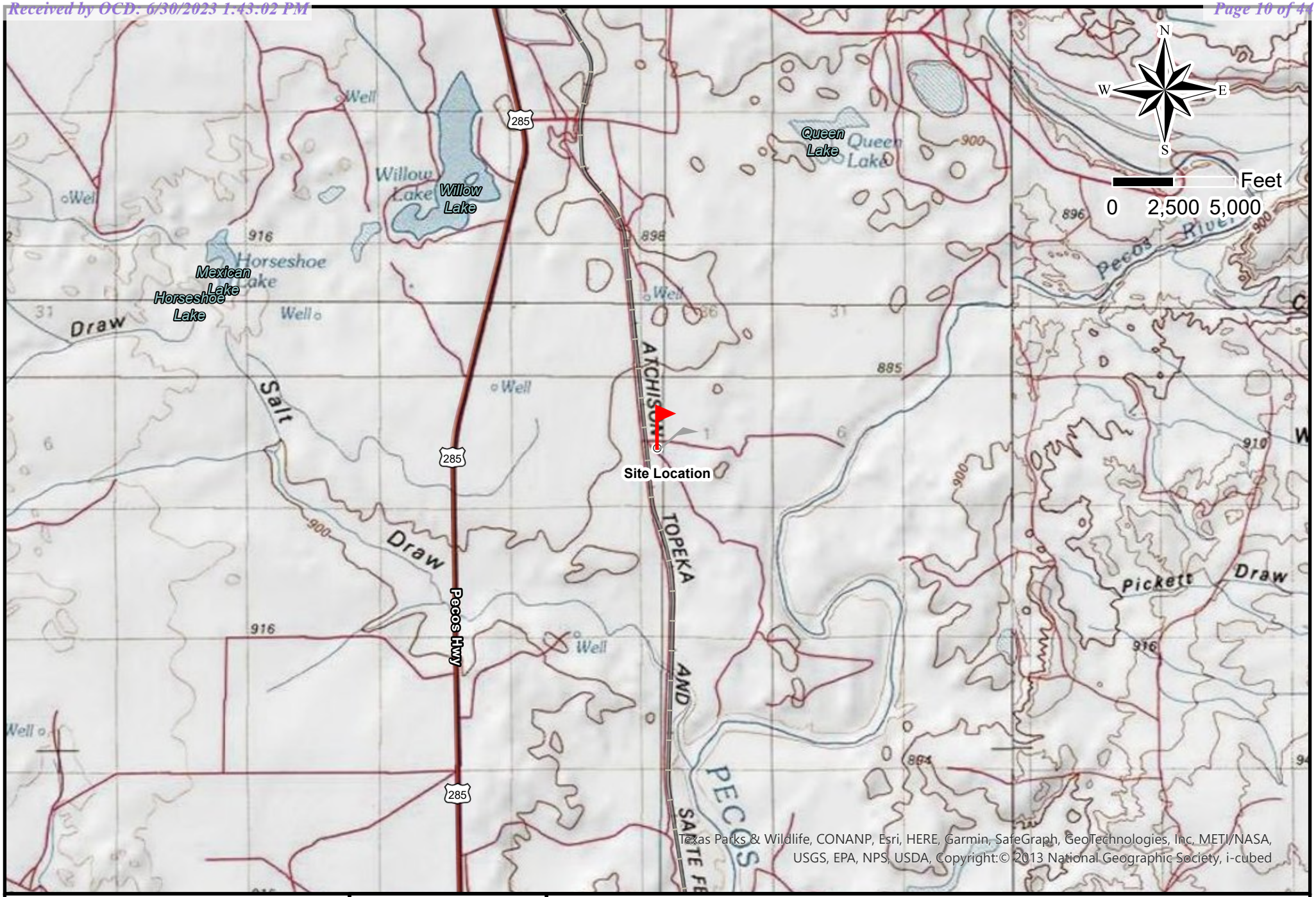
Cimarex Energy Co.
Riverbend Federal Com 12-13 CTB
Eddy County, NM
Confirmation Map



TALON LPE

Drafted: 6/26/2023
1 in = 2,000 ft
Drafted By: IJR

Cimarex Energy Co.
Riverbend Federal Com 12-13 CTB
Eddy County, NM
Karst Map



TALON LPE

Drafted: 6/26/2023
1 in = 5,000 ft
Drafted By: IJR

Cimarex Energy Co.
Riverbend Federal Com 12-13 CTB
Eddy County, NM
Topographic Map

Appendix II

Groundwater Data

Soil Survey

FEMA Flood Map

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01880		C	ED	3	3	2	06	25S	29E	592161	3558605*	85	40	45
C 04493 POD1		CUB	ED	4	4	4	06	25S	29E	592760	3557765	57	39	18

Average Depth to Water: **39 feet**

Minimum Depth: **39 feet**

Maximum Depth: **40 feet**

Record Count: 2

PLSS Search:

Section(s): 06 **Township:** 25S **Range:** 29E

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

6/20/23 4:27 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Eddy Area, New Mexico

June 20, 2023

Custom Soil Resource Report
Soil Map

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 18, Sep 8, 2022

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EC	Ector stony loam, 0 to 9 percent slopes	1.4	0.5%
RG	Reeves-Gypsum land complex, 0 to 3 percent slopes	33.7	11.6%
RS	Russler loam, 1 to 3 percent slopes	251.6	86.3%
UG	Upton gravelly loam, 0 to 9 percent slopes	4.9	1.7%
Totals for Area of Interest		**291.6**	**100.0%**

Map Unit Descriptions

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

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

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

Eddy Area, New Mexico

EC—Ector stony loam, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w4b
Elevation: 3,300 to 4,800 feet
Mean annual precipitation: 10 to 18 inches
Mean annual air temperature: 58 to 62 degrees F
Frost-free period: 195 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Ector and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ector

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 6 inches: very cobbly loam
H2 - 6 to 60 inches: bedrock

Properties and qualities

Slope: 0 to 9 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 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: 60 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 0.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R042CY158NM - Very Shallow
Hydric soil rating: No

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)

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

RS—Russler loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5j
Elevation: 1,250 to 5,300 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 200 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

Russler and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Russler

Setting

Landform: Plains, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

H1 - 0 to 11 inches: loam
H2 - 11 to 45 inches: clay loam
H3 - 45 to 60 inches: gypsiferous material

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 60 inches to paralithic bedrock
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: 15 percent
Gypsum, maximum content: 40 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Minor Components

Cottonwood

Percent of map unit: 1 percent
Ecological site: R070BC033NM - Salty Bottomland
Hydric soil rating: No

Reeves

Percent of map unit: 1 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Reagan

Percent of map unit: 1 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

UG—Upton gravelly loam, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w64
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 15 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 96 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Upton

Setting

Landform: Ridges, fans
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 13 inches: gravelly loam
H3 - 13 to 21 inches: cemented
H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 0 to 9 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 75 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

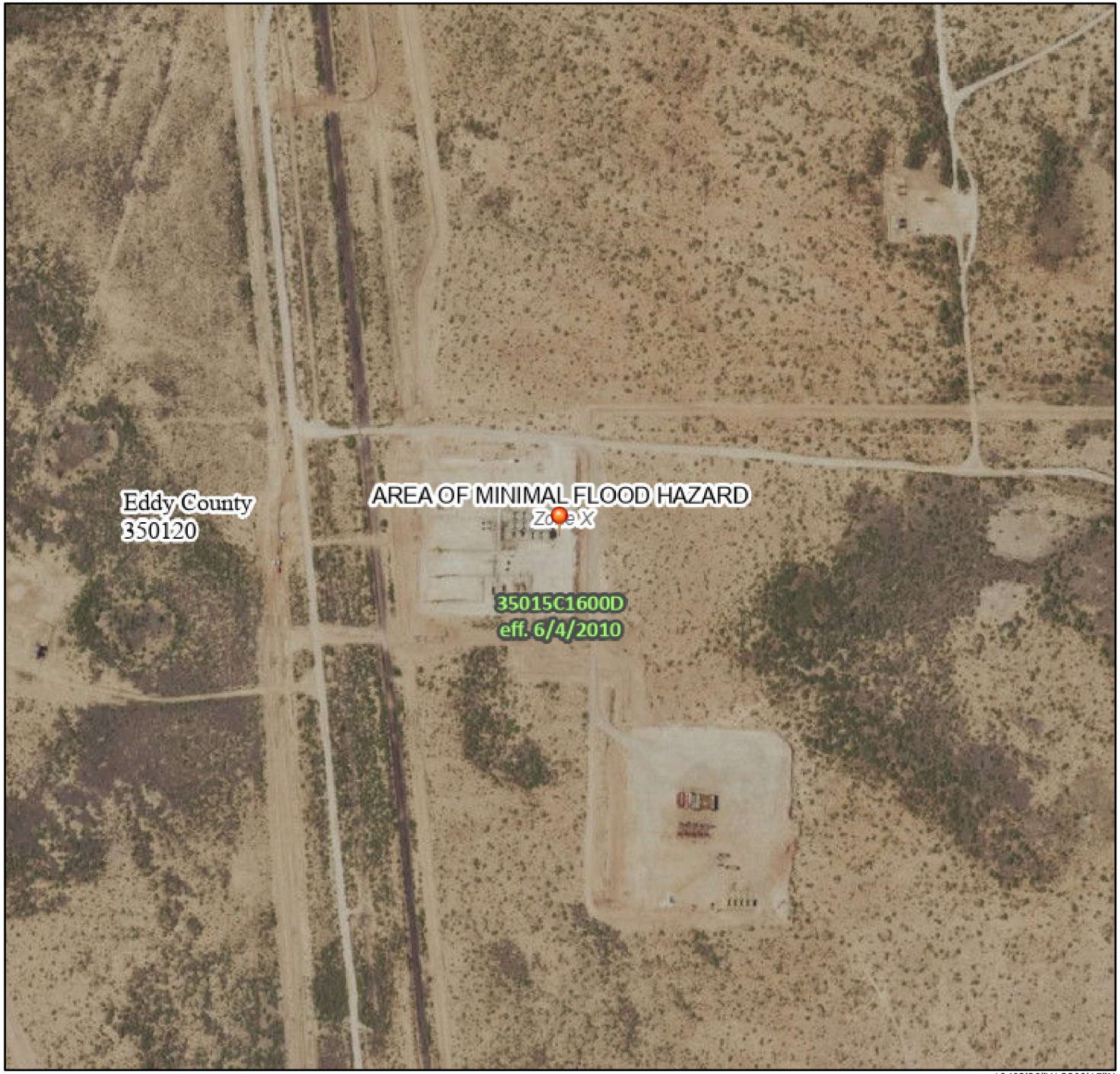
Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R070BC025NM - Shallow

National Flood Hazard Layer FIRMette

FEMA

104°3'6"W 32°9'45"N



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

1:6,000

104°2'29"W 32°9'15"N

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 / 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
- 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 6/20/2023 at 6:23 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

C-141 Forms

NMOCD Correspondence

Liner Inspection

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	nAPP2313976458
District RP	
Facility ID	fAPP2123545971
Application ID	

Release Notification

Responsible Party

Responsible Party: Cimarex Energy Co.	OGRID: 215099
Contact Name: Laci Luig	Contact Telephone: (432) 571-7800
Contact email: laci.luig@coterra.com	Incident # *(assigned by OCD)* nAPP2313976458
Contact mailing address: 600 N Marienfeld Street, Ste. 600 Midland, TX 79701	

Location of Release Source

Latitude 32.15837 Longitude -104.04652

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Riverbend Federal Com 12-13	Site Type: Battery
Date Release Discovered: 5/19/2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
L	1	25S	28E	Eddy

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 30	Volume Recovered (bbls) 28.5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Human Error
The cause of the spill is due to Human Error. After replacing piping from tanks to the suction side on water transfer pump, a 2" 150 gasket was re-installed in a 3" 150 flange. This allowed a total of 30 barrels produced water to be released into containment and on to the facility pad. All fluids remained on the pad. A vac truck recovered a total of 28.5 barrels from containment and the pad. The containment will be washed and impacted material will be scheduled for remediation in the coming weeks. Spilled: 30 barrels water (28 barrels inside containment + 2 barrels on well pad) Recovered: 28.5 barrels (28 barrels inside containment + 0.5 barrels from well pad)

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2313976458
District RP	
Facility ID	fAPP2123545971
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Total amount released is greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By: Laci Luig To: OCD Enviro, BLM By: Email	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Laci Luig Title: ESH Specialist

Signature: Laci Luig Date: 5/19/2023

email: laci.luig@coterra.com Telephone: (432) 208-3035

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2313976458
District RP	
Facility ID	fAPP2123545971
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?	40 (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

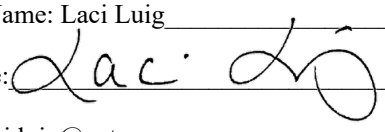
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2313976458
District RP	
Facility ID	fAPP2123545971
Application ID	

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

Printed Name: Laci Luig Title: ESH Specialist

Signature:  Date: 6/30/2023

email: laci.luig@coterra.com Telephone: (432) 208-3035

OCD Only

Received by: Shelly Wells Date: 6/30/2023

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2313976458
District RP	
Facility ID	fAPP2123545971
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Laci Luig Title: ESH Specialist

Signature: Laci Luig Date: 6/30/2023

email: laci.luig@coterra.com Telephone: (432) 208-3035

OCD Only

Received by: Shelly Wells Date: 6/30/2023

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: Date:

Printed Name: Title:

Ashton Thielke

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Monday, June 12, 2023 5:34 PM
To: Ashton Thielke
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD
Subject: RE: [EXTERNAL] nAPP2313976458 - Riverbend Federal Com 12-13 Battery - Confirmation Sampling Notification

Ashton,

Please be aware that notification requirements are **two business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

JH

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Ashton Thielke <Ashton.Thielke@coterra.com>
Sent: Monday, June 12, 2023 9:19 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Laci Luig <Laci.Luig@coterra.com>
Subject: [EXTERNAL] nAPP2313976458 - Riverbend Federal Com 12-13 Battery - Confirmation Sampling Notification

Good morning,

This email serves as notification for confirmation sampling on the Riverbend Federal Com 12-13 Battery. Excavation and confirmation sampling is scheduled to begin as early as 13:00 (MST)

Wednesday, June 14th, weather and soil conditions permitting. Talon LPE will be onsite to collect the confirmation samples.

Coordinates: 32.15837, -104.04652

Thank you,

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.

Liner Integrity Certification

The following serves to verify that the affected liner has been inspected and found to be in serviceable condition in accordance with 19.15.29.11 A.(5)(a)(i-ii) of the New Mexico Administrative Code.

Facility ID: fAPP2123545971

Date: 6/14/2023

Incident ID(s): NAPP2313976458

☑ Responsible Party has visually inspected the liner.

☑ Liner remains intact and was able to contain the leak in question.

☑ At least two business days' notice was given to the appropriate division district office before conducting the liner inspection.

☑ Photographs illustrating liner integrity are included.

Notes:

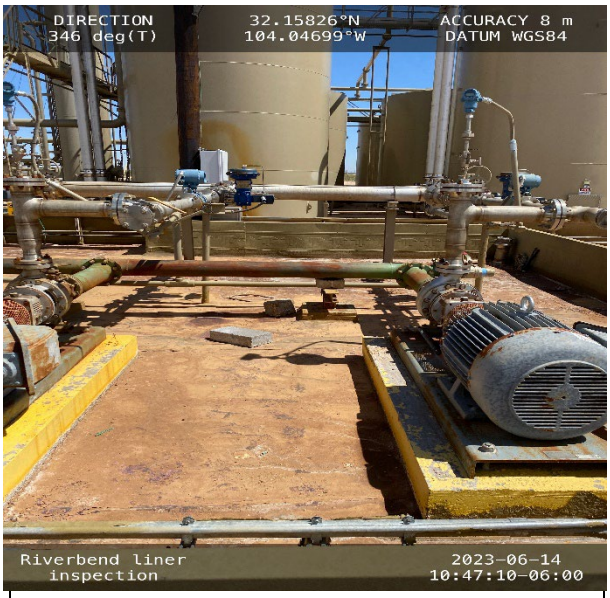
I, Nathan Rose, hereby certify liner integrity.

Appendix IV

Photographic Documentation

Photograph No.1 Description:

Centrifugal Pump Containment, Liner Inspection.



Photograph No.2 Description:

Centrifugal Pump Containment, Liner Inspection.

Photograph No.3 Description:

Centrifugal Pump Containment, Liner Inspection.

Photograph No.4 Description:

Centrifugal Pump Containment, Liner Inspection.

Photograph No.5 Description:

Centrifugal Pump Containment, Liner Inspection.

Photograph No.6 Description:

Excavation of Over Spray Area.

Photograph No.7 Description:

Excavation of Over Spray Area.

Photograph No.8 Description:

Excavation of Over Spray Area.

Appendix V

Laboratory Analytical Reports

CARDINAL Laboratories

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

June 19, 2023

CHAD HENSLEY

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: RIVERBEND FEDERAL

Enclosed are the results of analyses for samples received by the laboratory on 06/15/23 11:25.

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:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/15/2023	Sampling Date:	06/14/2023
Reported:	06/19/2023	Sampling Type:	Soil
Project Name:	RIVERBEND FEDERAL	Sampling Condition:	Cool & Intact
Project Number:	701162.122.01	Sample Received By:	Tamara Oldaker
Project Location:	COTERRA - EDDY CO NM		

Sample ID: SW - 1 2' (H233085-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	7.84	
Toluene*	<0.050	0.050	06/17/2023	ND	2.30	115	2.00	5.53	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.32	116	2.00	4.26	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	7.09	118	6.00	2.80	
Total BTEX	<0.300	0.300	06/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *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	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	<10.0	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	<10.0	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane *80.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.4 %* *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:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/15/2023	Sampling Date:	06/14/2023
Reported:	06/19/2023	Sampling Type:	Soil
Project Name:	RIVERBEND FEDERAL	Sampling Condition:	Cool & Intact
Project Number:	701162.122.01	Sample Received By:	Tamara Oldaker
Project Location:	COTERRA - EDDY CO NM		

Sample ID: SW - 2 2' (H233085-02)

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	06/17/2023	ND	2.36	118	2.00	7.84	
Toluene*	<0.050	0.050	06/17/2023	ND	2.30	115	2.00	5.53	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.32	116	2.00	4.26	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	7.09	118	6.00	2.80	
Total BTEX	<0.300	0.300	06/17/2023	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	**288**	16.0	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	<10.0	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	<10.0	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane *83.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *97.4 %* *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:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/15/2023	Sampling Date:	06/14/2023
Reported:	06/19/2023	Sampling Type:	Soil
Project Name:	RIVERBEND FEDERAL	Sampling Condition:	Cool & Intact
Project Number:	701162.122.01	Sample Received By:	Tamara Oldaker
Project Location:	COTERRA - EDDY CO NM		

Sample ID: SW - 3 2' (H233085-03)

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	06/17/2023	ND	2.36	118	2.00	7.84	
Toluene*	<0.050	0.050	06/17/2023	ND	2.30	115	2.00	5.53	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.32	116	2.00	4.26	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	7.09	118	6.00	2.80	
Total BTEX	<0.300	0.300	06/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *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	**112**	16.0	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	<10.0	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	<10.0	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *121 %* *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:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/15/2023	Sampling Date:	06/14/2023
Reported:	06/19/2023	Sampling Type:	Soil
Project Name:	RIVERBEND FEDERAL	Sampling Condition:	Cool & Intact
Project Number:	701162.122.01	Sample Received By:	Tamara Oldaker
Project Location:	COTERRA - EDDY CO NM		

Sample ID: SW - 4 2' (H233085-04)

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	06/17/2023	ND	2.36	118	2.00	7.84	
Toluene*	<0.050	0.050	06/17/2023	ND	2.30	115	2.00	5.53	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.32	116	2.00	4.26	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	7.09	118	6.00	2.80	
Total BTEX	<0.300	0.300	06/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *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	**384**	16.0	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	<10.0	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	<10.0	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane *80.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.4 %* *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:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/15/2023	Sampling Date:	06/14/2023
Reported:	06/19/2023	Sampling Type:	Soil
Project Name:	RIVERBEND FEDERAL	Sampling Condition:	Cool & Intact
Project Number:	701162.122.01	Sample Received By:	Tamara Oldaker
Project Location:	COTERRA - EDDY CO NM		

Sample ID: C - 1 2' (H233085-05)

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	06/17/2023	ND	2.36	118	2.00	7.84	
Toluene*	<0.050	0.050	06/17/2023	ND	2.30	115	2.00	5.53	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.32	116	2.00	4.26	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	7.09	118	6.00	2.80	
Total BTEX	<0.300	0.300	06/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *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	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	<10.0	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	<10.0	10.0	06/17/2023	ND					

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

Surrogate: 1-Chlorooctadecane *99.4 %* *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

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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: Talon LPE	**BILL TO**
Project Manager: C. Hensley	P.O. #:
Address: 408 W. Texas Ave	Company: Cotterra
City: Artesia State: NM Zip: 88210	Attn: L. Luig
Phone #: 575.746.8768 Fax #:	Address:
Project #: 701162.122.01 Project Owner: Cotterra	City:
Project Name: River Bend Federal	State: Zip:
Project Location: Eddy County	Phone #:
Sampler Name: N. Rose	Fax #:

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL	BTEX	TPH
H233085																		
1	SW-1	2'	C	1			X					X		6-14-23	1110	X	X	X
2	SW-2		C	1			X					X			1140	X	X	X
3	SW-3		C	1			X					X			1123	X	X	X
4	SW-4		C	1			X					X			1252	X	X	X
5	C-1		C	1			X					X			1440	X	X	X

Relinquished By:	Date: 6-15-23	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1125		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One)	#113	Sample Condition: Cool ☑ Yes ☐ No / Intact ☑ Yes ☐ No	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	5.9°c / 5.3°c		

+ Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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

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

CONDITIONS

Operator:	OGRID:
CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	215099
	Action Number: 234982
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2313976458 RIVERBEND FEDERAL COM 12-13 BATTERY, thank you. This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation including pictures of the contoured backfilled excavation surface and a thorough discussion on reseeding mixture, vegetation ratio, timelines, etc.., will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	12/26/2023