



Former Drilling Pit Delineation and Reclamation Plan

**ConocoPhillips
Federal 29 Z 002H
Eddy County, New Mexico
Unit Letter "L", Section 29, Township 20 South, Range 27 East
Latitude 32.5425° North, Longitude 104.3108° West
NMOCD Reference No. NAPP2221331648**

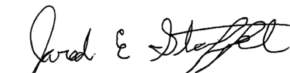
Prepared For:

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Prepared By:

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October 25, 2024



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Project Manager



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INTRODUCTION & BACKGROUND INFORMATION

TRC Environmental Corporation (TRC), on behalf of ConocoPhillips, has prepared this *Revised Remediation Work Plan and Proposed Variance Request* for the Release Site known as the Federal 29 Z 002H (the Site). The legal description of the Site is Unit Letter "L", Section 29, Township 20 South, Range 27 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the Site are N 32.5425°, W 104.3108°. A topographic map is provided as **Figure 1**.

On July 16, 2022, ConocoPhillips (COP) discovered a crude oil release had occurred at the Site. The Release was attributed to a packing blowout. On the discovery date, COP notified the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO) of the Release. The Release was assigned an NMOCD Reference number of NAPP2221331648. On August 01, 2022, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated 1.5 barrels (bbls) of crude oil was released and zero (0) bbls of crude oil was recovered. The crude oil was oversprayed primarily to the west with a minor component to the north and east. The Release affected an area measuring approximately 10,800 square feet (sq. ft.). The C-141 indicated the impacted area was located on and off the location pad. The Site location is depicted in **Figure 1**. **Figure 2** and **Figure 3** reflect the characterization parameters of the Site. The affected area is depicted in **Figure 4**.

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.68 miles east of the site in S29, T20S, R27E and was drilled in 2023. The well has a reported depth to groundwater of 132 feet below ground surface (ft bgs). The screened interval is between 139 and 159 feet bgs. A copy of the associated Point of Diversion Summary report is attached in **Appendix A**.

Based on the inferred depth to groundwater at the Federal 29 Z 002H Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* does not warrant the most stringent closure criteria listed based on depth to groundwater. However, the Federal 29 Z 002H is within 300 feet of a significant watercourse and/or wetland denoted as a riverine on **Figure 2**. Additionally, the Federal 29 Z 002H is located in the 'high karst' area as outlined in Bureau of Land Management (BLM) publicly available Karst Potential Map and is provided as **Figure 3**. Despite the depth to groundwater greater than 100 feet bgs, the NMOCD stance on the regulation of releases at Sites adjacent to flowing or significant watercourses, wetlands, and 'high karst' areas requires that COP utilize the most stringent NMOCD Closure Criteria for Soils Impacted by a Release for the Federal 29 Z 002H as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 100 mg/kg
- Chloride – 600 mg/kg



CHRONOLOGY AND DISCUSSIONS WITH THE NMOCD

July 16, 2022 – The release occurs and is incorrectly reported to NMOCD due to volume (1.5 barrels of crude oil; no produced water).

December 15, 2022 – The Initial Remediation Workplan is submitted to the NMOCD by Carmona Resources. The workplan is provided as **Attachment B**.

March 17, 2023 – The initial Remediation Workplan is approved by the NMOCD.

June 21, 2023 – An extension request is submitted by TRC prior to remediation enactment. The extension request is approved by the NMOCD.

July 13, 2023 – TRC provides a notification to NMOCD that workplan enactment will begin the following week to comply with the required 48-hour confirmation sampling notice.

July 17, 2023 – TRC is onsite for preparation of site remediation and notes ubiquitous elevated chloride concentrations in the former drilling pit area. The area to be remediated appears to be contained within the former drilling pit footprint. TRC is unable to differentiate between elevated chloride concentrations related to the former drilling pit and those caused by the release. Remediation activities are not initiated pending discussion with the NMOCD.

July 25, 2023 – TRC provides a notification to NMOCD via email of comingled former drilling pit footprint and release area footprint. TRC also notes the release was of a non-reportable volume (1.5 bbl crude oil and no produced water) and no TPH or BTEX concentrations exceeded NMOCD standards. TRC requests a meeting with the NMOCD to discuss path forward.

August 2, 2023 – NMOCD, COP, and TRC virtually meet to discuss comingled areas. The NMOCD indicates a variance request will be considered to avoid excavating the entirety of the former drilling pit, but the C-141 cannot be retracted despite the non-reportable release volume as a workplan has already been generated and approved.

August 20, 2023 – A second Remediation Workplan And Variance Request is submitted to NMOCD by TRC. The proposed workplan is to excavate the footprint of the release to four (4) feet bgs. The requested variance is to omit confirmation soil samples to avoid chloride concentrations sourced from the former drilling pit driving excavation extents beyond the spill footprint and previously delineated depths. The second workplan is provided as **Appendix C**.

March 5, 2024 – The NMOCD approves Remediation Workplan conditionally but denies variance request to omit confirmation sampling. The denial of the variance



request would result in the excavation of elevated chloride concentrations in the full former drilling pit footprint.

March 7, 2024 - TRC requests a smaller sampling variance in which confirmation soil samples would be collected but only run for TPH and BTEX. No response from the NMOCD.

April 8, 2024 – TRC re-submits the March 7, 2024 request for a smaller sampling variance. No response from the NMOCD.

April 25, 2024 – TRC requests a meeting to discuss the smaller sampling variance submitted on March 7 and April 8. The NMOCD proposes a virtual meeting on May 21, 2024 meeting based on their availability.

May 21, 2024 – The NMOCD, COP and TRC meet virtually to discuss the denial of the variance requests and potential alternative options to avoid excavating the full extent of the former drilling pit, which is unrelated to the surface release of hydrocarbons. The NMOCD indicates that no variance requests or alternative options will be approved for the site and all chlorides above 600 mg/kg will require removal regardless of source. COP indicates delineation will be required internally to begin an excavation of this scale outside the scope of remediation related to the small overspray release. NMOCD and COP agree that a workplan documenting the delineation of elevated chloride concentrations in the former drilling pit area was an acceptable path forward.

July 6, 2024 – TRC attempts delineation of former drilling pit chlorides with backhoe. Vertical delineation is not achieved in all locations to below 600 mg/kg. In response, TRC begins the NMOSE drilling permit process as required by the NMOSE in borings deeper than 30 feet bgs. Additionally, BLM concurrence for the borings is required.

October 4, 2024 – The NMOSE issues the executed drilling permits.

October 8, 2024 – TRC attempts delineation of former drilling pit chlorides with air rotary rig. Vertical delineation is not achieved in all locations to below 600 mg/kg.

October 22, 2024 – TRC requests an extension to further investigate former drilling pit chlorides as the 2 delineation events had not yet resulted in full vertical delineation in each sampled location. The NMOCD denies the extension request despite an explanation that COP continues to comply with the NMOCD requests. Email communications between the NMOCD and TRC/COP is documented as **Appendix D**.



FORMER DRILLING PIT ASSESSMENT ACTIVITIES

Backhoe Delineation – Field Work

On July 6, 2024, TRC initiated a former drilling pit chloride delineation event utilizing a backhoe.

During the event, five (5) vertical trenches (Pit Trench NW, Pit Trench SW, Pit Trench Center, Pit Trench NE, and Pit Trench SE) were advanced within the former drilling pit footprint to the maximum extent of the backhoe. Soil samples were collected every two (2) feet. Each soil sample was analyzed for chloride concentrations, and surface samples were additionally analyzed for TPH and BTEX concentrations to confirm the surface soils were not affected by hydrocarbons from the release.

Additionally, four (4) lateral soil samples (Lateral-West, Lateral-East, Lateral-North, and Lateral-South) were collected from the 0-1' interval to confirm the lateral extent of the former drilling pit.

Soil sample locations are documented in **Figure 4**.

Backhoe Delineation – Results

One (1) surface soil sample, Pit Trench SW @ 0-1', exhibited a TPH concentration of 118 mg/kg, slightly above the NMOCD standard. The soil sample underlying this soil sample, Pit Trench SW @ 2', was also run for TPH and BTEX to confirm the hydrocarbon exceedances was vertically delineated. Pit Trench SW @ 2' did not exhibit TPH or BTEX concentrations above the laboratory detection limit (RL). Only one of the backhoe trenches, Pit Trench SW, exhibited vertical delineation below 600 mg/kg for chlorides in the deepest sample (12').

Each lateral soil sample exhibited TPH, BTEX, and chloride concentrations below the NMOCD regulatory standard. Lateral delineation of the former drilling pit was achieved to below 600 mg/kg.

Soil sample analytical results are summarized in **Table 1**.

Air Rotary Drilling Rig Delineation – Field Work

Following the July 6, 2024 backhoe delineation event, COP elected to re-attempt to vertically define the extent of elevated chloride concentrations in the former drilling pit utilizing a drilling rig. The potential depth of borings necessitated NMOSE permits, which took time to procure as discussed above.

On October 8, 2024, TRC initiated a former drilling pit chloride delineation event utilizing an air rotary rig. Immediately adjacent to the five (5) trenches within the former drilling pit footprint but outside the backfilled trenches themselves, five (5) soil borings (SB-NW, SB-SW, SB-Center, SB-NE, and SB-SE) were advanced to a total depth of thirty (30) feet bgs. Soil samples were collected from the surface, 1-3, 5', 10', 15', 20', 25', and 30' intervals utilizing a 'pig's foot' sampler. Soil samples were analyzed for chloride concentrations only.



Additionally, two (2) background soil borings were advanced between 50 and 100 feet from the former drilling pit to confirm the Site is not affected by elevated background chloride concentrations. Sampled intervals in the background borings matched the vertical delineation borings.

Soil sample locations are documented in **Figure 4**. Field boring logs are provided as **Appendix E**. The general lithology at the site is silty sand which transitions to a sandy clay, underlain by a red clay rich soils starting between 15 and 20 feet bgs.

Air Rotary Drilling Rig Delineation – Results

Vertical delineation was confirmed in SB-SW in soil samples from 15' to 30' bgs, which corroborated the data collected from the adjacent trench Pit Trench SW during the backhoe delineation event. Additionally, vertical delineation to below 600 mg/kg was achieved at SB-NW in the 30-foot soil sample. However, vertical delineation was not achieved in SB-Center, SB-SE, and SB-NE with bottomhole chloride concentrations of 678 mg/kg, 2,580 mg/kg, and 1,480 mg/kg, respectively.

No background soil samples exhibited chloride concentrations above 600 mg/kg, indicating elevated chloride concentrations are unlikely to be a naturally occurring phenomenon at the site.

PROPOSED RECLAMATION OF THE FORMER DRILLING PIT

The depths of the chloride concentrations above 600 mg/kg and lateral delineation of concentrations to below 600 mg/kg outside the former drilling pit margins further indicates that the chlorides are sourced from the former drilling pit and are not related to the 1.5 barrel hydrocarbon overspray release on July 22, 2022. While COP understands the site is in a sensitive area, the small volume, material released, and lack of hydrocarbon impacts indicate the release is not a risk to the sensitive area. Based on the approximate former drilling pit footprint and chloride concentrations above 600 mg/kg to over 30 feet in multiple borings, excavation of the full pit would require removal of approximately 49,000 ex situ cubic yards. Excavations of such depth are intrinsically less safe and impractical.

COP proposes to excavate the footprint of the former drilling pit to four (4) feet bgs and will reclaim the pit to the NMOCD reclamation standard. The excavation would also remove the single TPH exceedance at the surface from Pit Trench SW, which potentially is related to the overspray release. COP proposes collection of a floor sample to document the elevated chloride concentrations at the base of the excavation and proposes installation of a geosynthetic liner to limit rainwater infiltration. COP proposes collection of sidewall samples on a 200 square foot basis (50 linear feet) as outlined in NMAC 19.15.29. The estimated volume of soil removed will be approximately 5,500 cubic yards, which will be transported to an NMOCD approved disposal facility. The Site will then be backfilled with locally sourced 'like' material to near original grade and reseeded in accordance with BLM requirements.

COP is prepared to begin the activities outlined in this *Former Drilling Pit Delineation and Reclamation Plan* following NMOCD and BLM approval. On completion of reclamation activities, a Reclamation Summary and Closure Report will be prepared detailing field activities.

If you have any questions, or need any additional information, please feel free to contact myself or Ike Tavarez by phone or email.



LIMITATION

TRC has prepared this Former Drilling Pit Delineation and Reclamation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

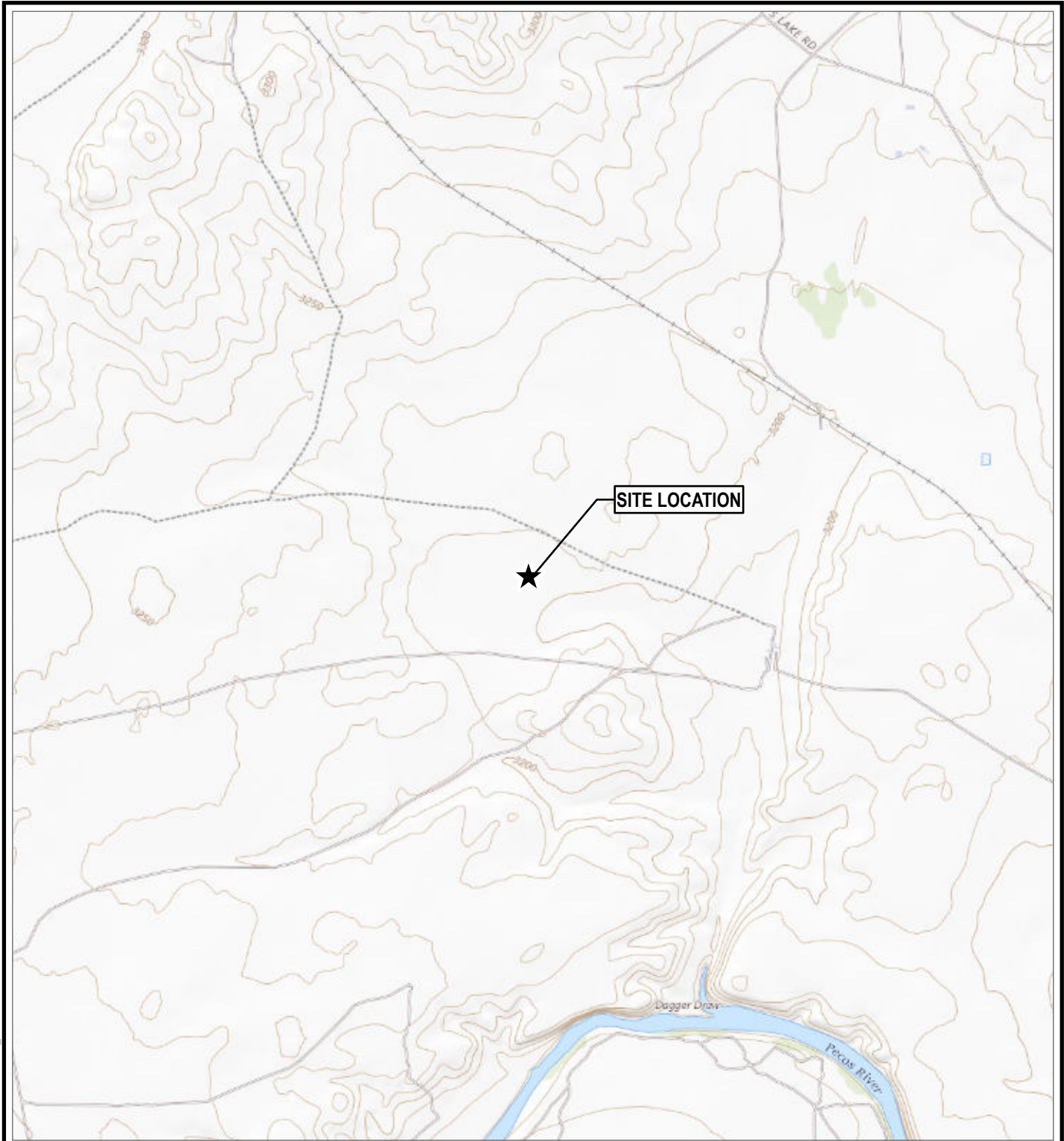
TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of ConocoPhillips. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ConocoPhillips.




DISTRIBUTION

- Copy 1: Mike Bratcher
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Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210
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Bureau of Land Management (BLM)
620 E Greene Street
Carlsbad, NM 88220
- Copy 3: Ike Tavaréz
ConocoPhillips
600 W. Illinois Avenue
Midland, Texas 79701
- Copy4: TRC Environmental Corporation
10 Desta Dr STE 410E
Midland, TX 79705



COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
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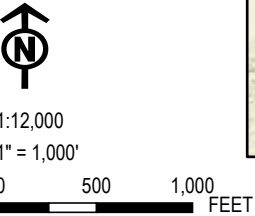
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	CHECKED BY: M. BRYANT	FIGURE 1
	APPROVED BY: M. BRYANT	
DATE: AUGUST 2023		
	 1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
	FILE: FEDERAL 29 Z 002H	


BASE MAP: USGS COLOR ORTHO IMAGERY
DATA SOURCES: TRC



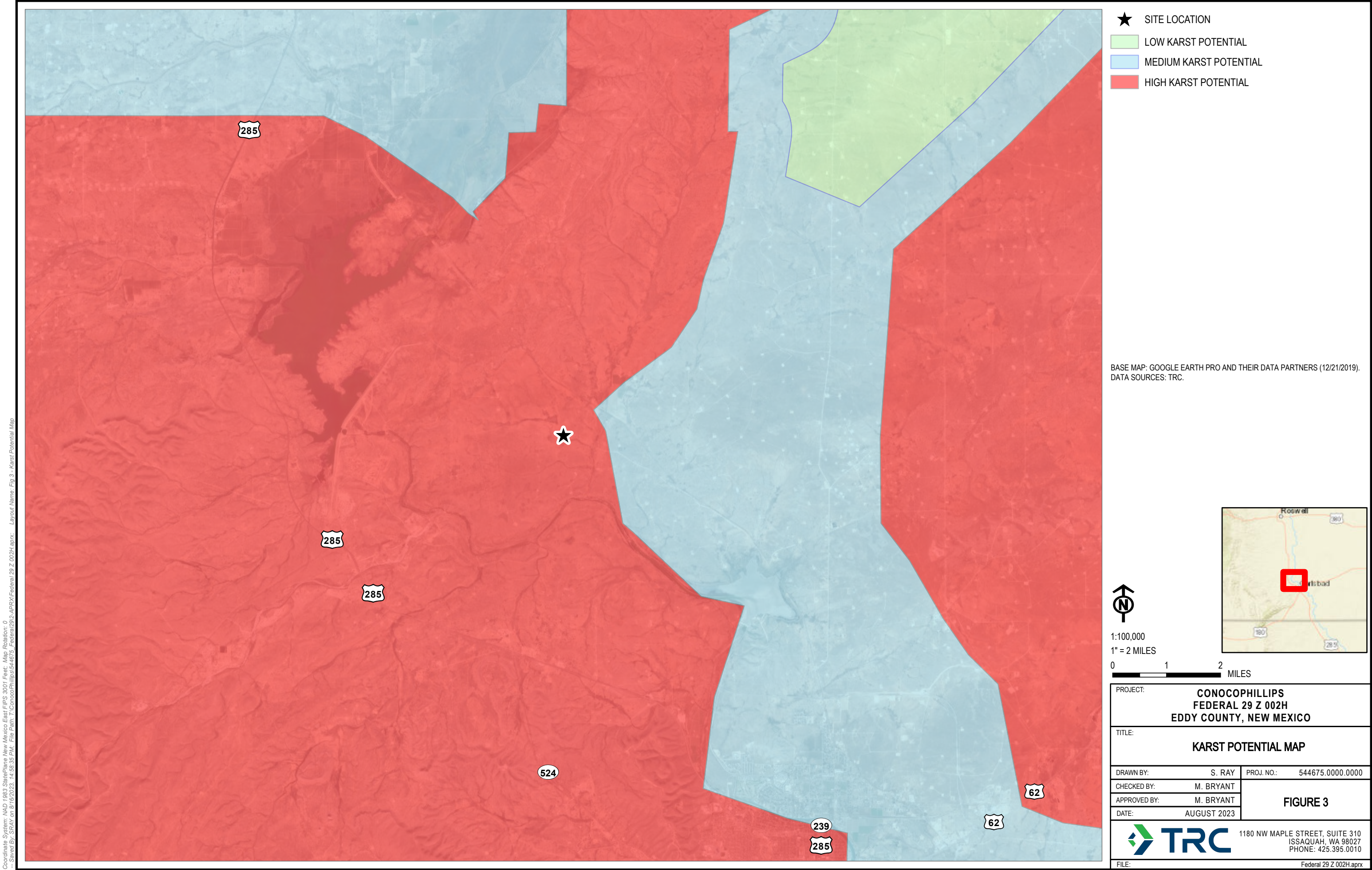
- ⬤ HALF-MILE RADIUS
- ★ SITE LOCATION
- ▨ AREA INSIDE OF 100-YEAR FLOODPLAIN
- RIVERINE

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC, FEMA, NWI.

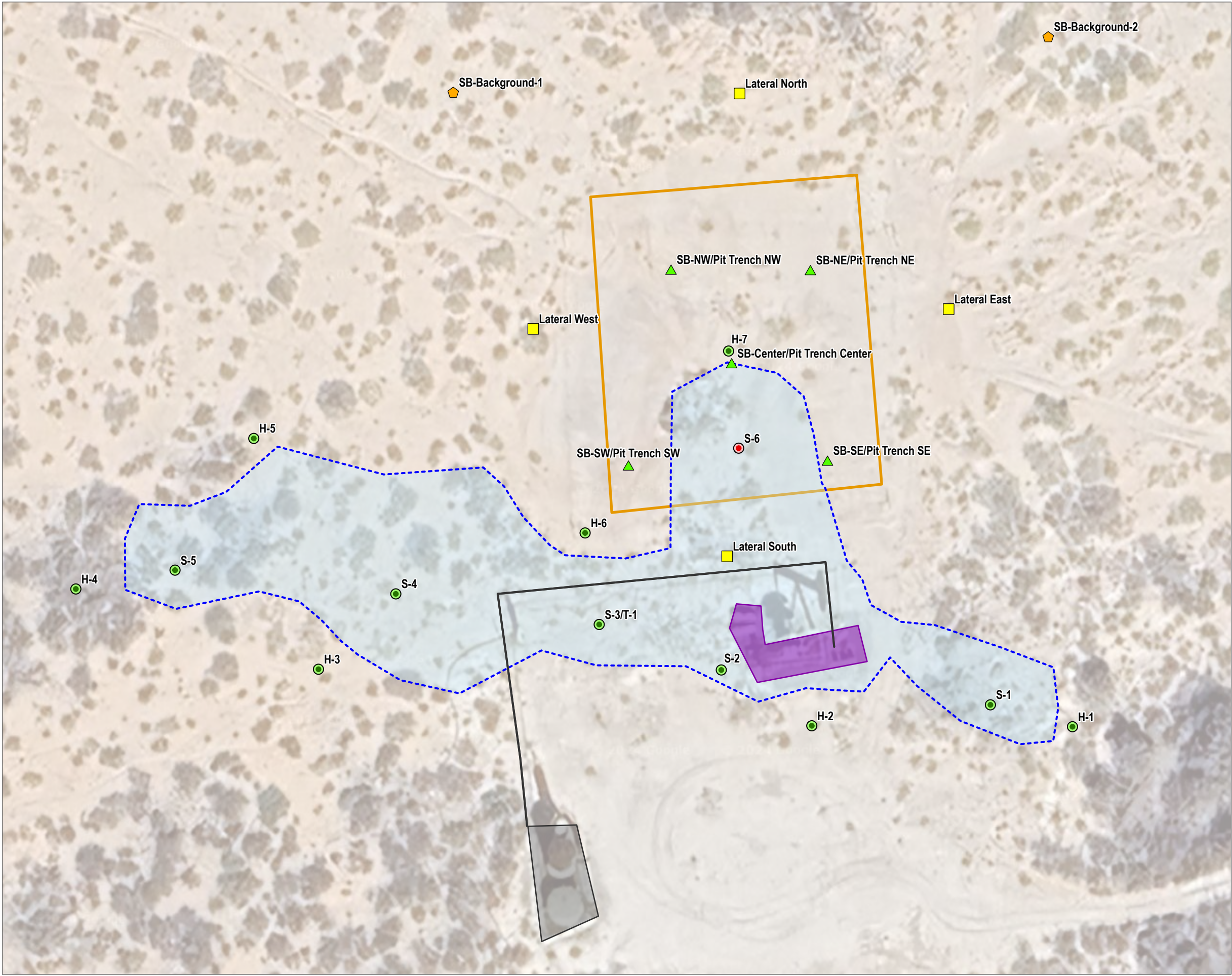


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DRAWN BY:	S. RAY	PROJ. NO.:	544675.0000.0000
CHECKED BY:	M. BRYANT	FIGURE 2	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		
		1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
FILE:		Federal 29 Z 002H.aprx	

Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
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Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
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- PREVIOUS DELINEATION SAMPLE LOCATION BELOW NMOC STANDARDS
- PREVIOUS DELINEATION SAMPLE LOCATION EXCEEDING NMOC STANDARDS
- BACKGROUND SAMPLE LOCATION
- HORIZONTAL PIT DELINEATION SAMPLE LOCATION
- VERTICAL PIT DELINEATION SAMPLE LOCATION
- SURFACE STEEL LINE
- TANK BATTERY
- WELLHEAD AND ASSOCIATED INFRASTRUCTURE
- APPROXIMATE PIT LOCATION
- RELEASE AREA (OVERSPRAY FOOTPRINT)

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC.

NOTES
SAMPLE LOCATIONS AND ANALYTICAL DATA FROM CARMONA RESOURCES WORKPLAN



1:500
1" = 42'




PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		DRILLING PIT ASSESSMENT - SAMPLE LOCATION MAP	
DRAWN BY:	A. CLINE	PROJ. NO.:	544675.0000.0000
CHECKED BY:	B. TRACY	FIGURE 4	
APPROVED BY:	M. BRYANT		
DATE:	OCTOBER 2024		
			
FILE:		Federal 29 Z 002H.aprx	

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Lateral Delineation											
Lateral-East @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	63.0
Lateral-North @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	72.6
Lateral-South @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	108
Lateral-West @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	67.6
Veritcal Delineation											
Pit Trench Center @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	1,340
Pit Trench Center @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	1,520
Pit Trench Center @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	848
Pit Trench Center @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,020
Pit Trench Center @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,450
Pit Trench Center @ 10	6/6/2024	-	-	-	-	-	-	-	-	-	3,590
Pit Trench Center @ 12	6/6/2024	-	-	-	-	-	-	-	-	-	2,970
SB-Center @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	847
SB-Center @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	1,110
SB-Center @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	466
SB-Center @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	1,570
SB-Center @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	1,040
SB-Center @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	883
SB-Center @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	997
SB-Center @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	678

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench NE @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	7,870
Pit Trench NE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	2,440
Pit Trench NE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,600
Pit Trench NE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
Pit Trench NE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,910
Pit Trench NE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	3,930
Pit Trench NE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	1,200
SB-NE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,440
SB-NE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,580
SB-NE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,620
SB-NE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,280
SB-NE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	965
SB-NE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	538
SB-NE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,160
SB-NE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench NW @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	10,300
Pit Trench NW @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	4,570
Pit Trench NW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	4,110
Pit Trench NW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	5,530
Pit Trench NW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	4,740
Pit Trench NW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	7,850
Pit Trench NW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	4,080
SB-NW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	1,870
SB-NW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	3,700
SB-NW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,000
SB-NW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	4,000
SB-NW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	5,060
SB-NW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	1,360
SB-NW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-NW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	571

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench SE @ 0-1'	6/6/2024	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<49.9	<49.9	<49.9	<49.9	1,730
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	5,980
Pit Trench SE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	10,100
Pit Trench SE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,250
Pit Trench SE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,210
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
SB-SE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,230
SB-SE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,950
SB-SE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,760
SB-SE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,820
SB-SE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-SE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	796
SB-SE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	613
SB-SE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench SW @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	118	<50.0	118	3,650
Pit Trench SW @ 2'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	2,550
Pit Trench SW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,170
Pit Trench SW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,660
Pit Trench SW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,150
Pit Trench SW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	1,230
Pit Trench SW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	437
SB-SW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,170
SB-SW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	2,440
SB-SW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,240
SB-SW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,020
SB-SW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	215
SB-SW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	79.2
SB-SW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	78.3
SB-SW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	128

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Background Borings											
Background-1 @ Surface	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 1-3'	10/10/2024	-	-	-	-	-	-	-	-	-	31.3
Background-1 @ 5'	10/10/2024	-	-	-	-	-	-	-	-	-	25.4
Background-1 @ 10'	10/10/2024	-	-	-	-	-	-	-	-	-	<9.90
Background-1 @ 15'	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 20'	10/10/2024	-	-	-	-	-	-	-	-	-	46.2
Background-1 @ 25'	10/10/2024	-	-	-	-	-	-	-	-	-	164
Background-1 @ 30'	10/10/2024	-	-	-	-	-	-	-	-	-	141
Background-2 @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	334
Background-2 @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	241
Background-2 @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	271
Background-2 @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	172
Background-2 @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	50.7
Background-2 @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	13.4
Background-2 @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	14.1
Background-2 @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	7.48

Exceeds NMOCD Standard




Appendix A – Groundwater Database Results

Point of Diversion Summary

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

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
2124F	C 04728 POD1	NE	SW	SE	29	20S	27E	565794.4	3600565.0	

* UTM location was derived from PLSS - see Help

Driller License:	1348	Driller Company:	TAYLOR WATER WELL SERVICE
Driller Name:	CLINTON E TAYLOR		
Drill Start Date:	2023-09-11	Drill Finish Date:	2023-10-10
Log File Date:	2023-10-25	PCW Rcv Date:	
		Source:	Shallow
Pump Type:		Pipe Discharge Size:	
		Estimated Yield:	100
Casing Size:		Depth Well:	159
		Depth Water:	132

Water Bearing Stratifications:

Top	Bottom	Description
132	142	Limestone/Dolomite/Chalk
142	159	Limestone/Dolomite/Chalk

Casing Perforations:

Top	Bottom
139	159

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



Appendix B – Previously Submitted and Conditionally Approved Workplan; Carmona Resources

CARMONA RESOURCES



SITE INFORMATION

Work Plan

Federal 29 Z 002H (07.16.22)

Incident # NAPP2221331648

Eddy County, New Mexico

Unit L Sec 29 T20S R27E

32.5425°, -104.3108°

Crude Oil Release

Point of Release: Packing blowout

Release Date: 07.16.22

Volume Released: 1.5 barrels of Crude Oil

Volume Recovered: 0 barrels of Crude Oil

CARMONA RESOURCES



Prepared for:

Concho Operating, LLC

15 West London Road

Loving, New Mexico 88256

Prepared by:

Carmona Resources, LLC

310 West Wall Street

Suite 415

Midland, Texas 79701

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

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1.0 SITE INFORMATION AND BACKGROUND

2.0 SITE CHARACTERIZATION AND GROUNDWATER

3.0 NMAC REGULATORY CRITERIA

4.0 SITE ASSESSMENT ACTIVITIES

5.0 PROPOSED WORK PLAN

6.0 CONCLUSIONS

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FIGURE 3	SAMPLE LOCATION	FIGURE 4	PROPOSED EXCAVATION

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APPENDIX B	PHOTOS
APPENDIX C	INITIAL C-141 AND REMEDIATION PLAN
APPENDIX D	SITE CHARACTERIZATION AND GROUNDWATER
APPENDIX E	LABORATORY REPORTS



December 15, 2022

Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

**Re: Work Plan
Federal 29 Z 002H (07.16.22)
Concho Operating, LLC
Incident # NAPP2221331648
Site Location: Unit L, S29, T20S, R27E
(Lat 32.5425°, Long -104.3108°)
Eddy County, New Mexico**

Mr. Bratcher:

On behalf of Concho Operating, LLC (COG), Carmona Resources, LLC has prepared this letter to document site activities for the Federal 29 Z 002H (07.16.22). The site is located at 32.5425°, -104.3108° within Unit L, S29, T20S, R27E, in Eddy County, New Mexico (Figures 1 and 2).

1.0 Site information and Background

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on July 16, 2022, from a packing blowout. It resulted in the release of approximately one point five (1.5) barrels of crude oil, and zero (0) barrels were recovered. Refer to Figure 3. The initial C-141 form is attached in Appendix C.

2.0 Site Characterization and Groundwater

The site is located within a high karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.70 miles Southeast of the site in S29, T20S, R27E and was drilled in 1957. The well has a reported depth to groundwater of 83.75' below ground surface (ft bgs). A copy of the associated Point of Diversion Summary report is attached in Appendix D.

3.0 NMAC Regulatory Criteria

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

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride: 600 mg/kg.

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432.813.1992



4.0 Site Assessment Activities

Initial Assessment

On September 20, 2022, Carmona Resources, LLC performed site assessment activities to evaluate soil impacts stemming from the release. A total of six (6) sample points and seven (7) horizontal samples were advanced to depths ranging from the surface to 4.5' bgs inside and surrounding the release area to evaluate the vertical and horizontal extent. See Figure 3 for the soil sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 300.0. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix E.

Vertical delineation was not achieved due to the dense layer encountered. Refer to Table 1.

Horizontal Delineation

The areas of H-1 through H-7 were below the regulatory limits for benzene, total BTEX, TPH, and chloride concentrations. Refer to Table 1.

Trenching

Based on the area having heavy rainfall events, Carmona Resources returned to the location on December 9, 2022, to vertically delineate the area of S-3 and evaluate soil impacts stemming from the release. A total of one (1) trench (T-1) was installed to a total depth from surface to 6.0 ft below the surface. Soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The sample locations are shown in Figure 3.

The area of Trench-1 showed no chloride impact from surface to 6.0 ft below the surface. The rain has significantly helped dilute or migrate the chloride concentrations during the rainfall events. Vertical delineation was achieved. Refer to Table 1.

5.0 Proposed Work Plan

Based on the analytical data and the detected chloride concentrations, Concho proposes to remediate the areas shown in Figure 4 and highlighted (blue) in Table 1.

- The area of S-6 will be excavated to a depth of 4.0' below the surface and backfilled with clean material to grade. Which is on the edge of the reserve pit.
- COG requests to collect composite sidewall samples from the surface to 1' to mitigate digging into and sampling the possible impact from the reserve pit at 4.0'.
- An estimated 875 cubic yards will be removed and hauled to the nearest disposal based on the maximum depth.
- A variance is requested per 19.15.29.14. A NMAC, Five-point composite bottom floor hole, and sidewall samples will be collected every 400 square feet to represent the release area.
- Once the site activities and excavation are complete, the areas will be backfilled with clean material to surface grade. The remediation will be implemented 90 days after the work plan is approved.

CARMONA RESOURCES



- Impacted soil around the reserve pit, oil and gas equipment, structures, or lines may not be removed during remediation activities due to safety concerns for the onsite personnel. However, COG will excavate the impacted soils to the maximum extent possible.

6.0 Conclusions

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

Sincerely,

Carmona Resources, LLC

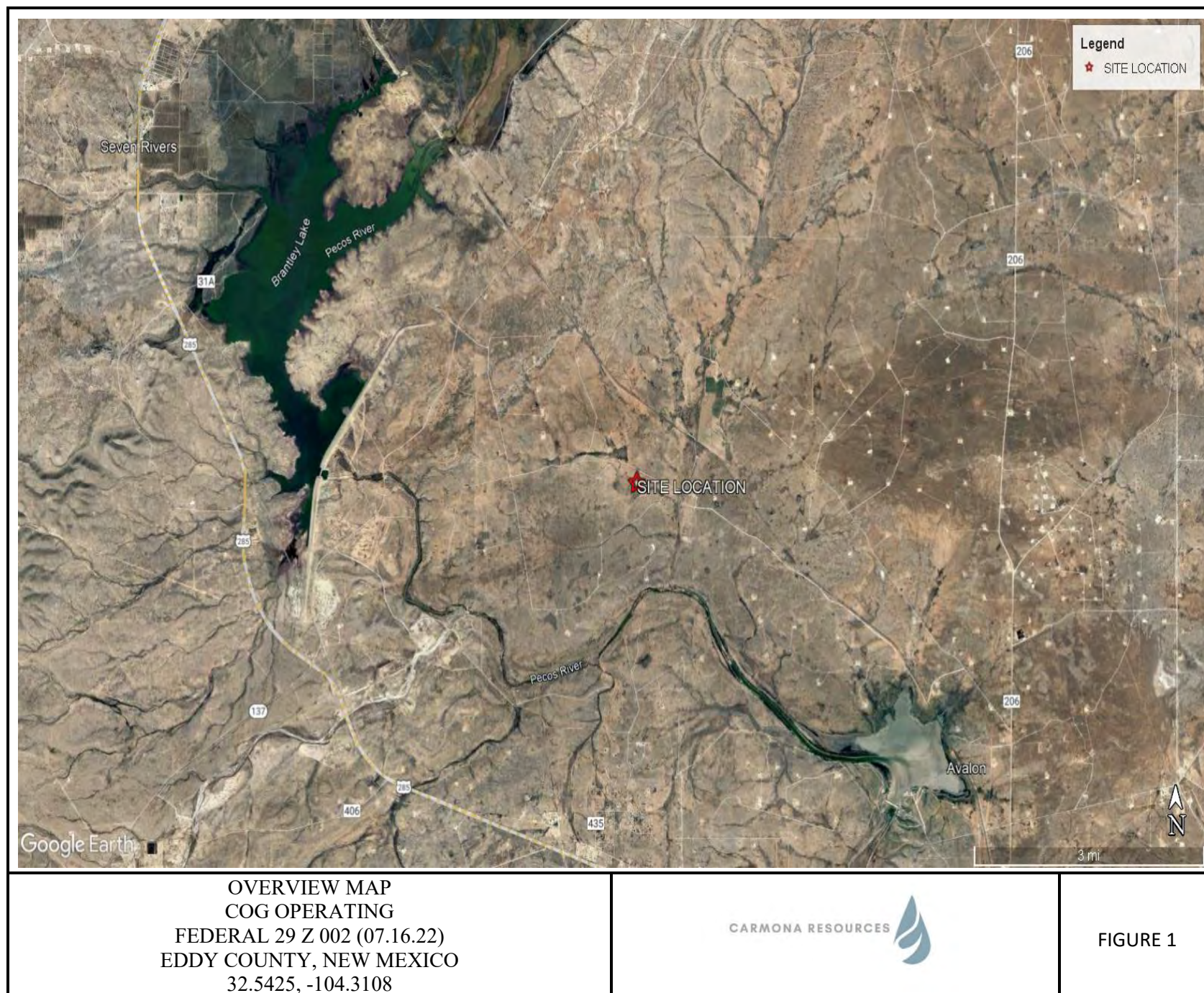
Mike Carmona
Environmental Manager

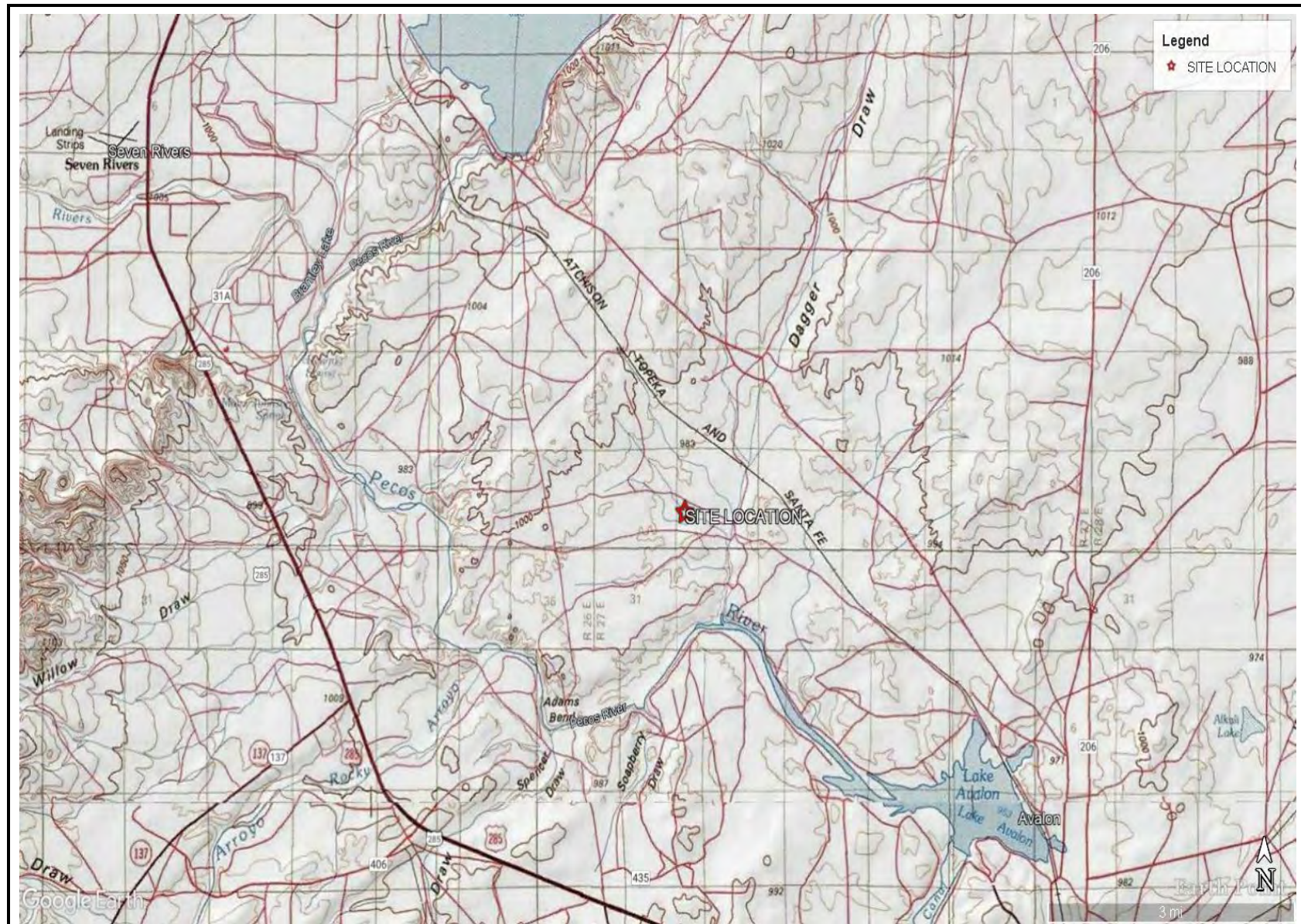
Conner Moehring
Sr. Project Manager

FIGURES

CARMONA RESOURCES



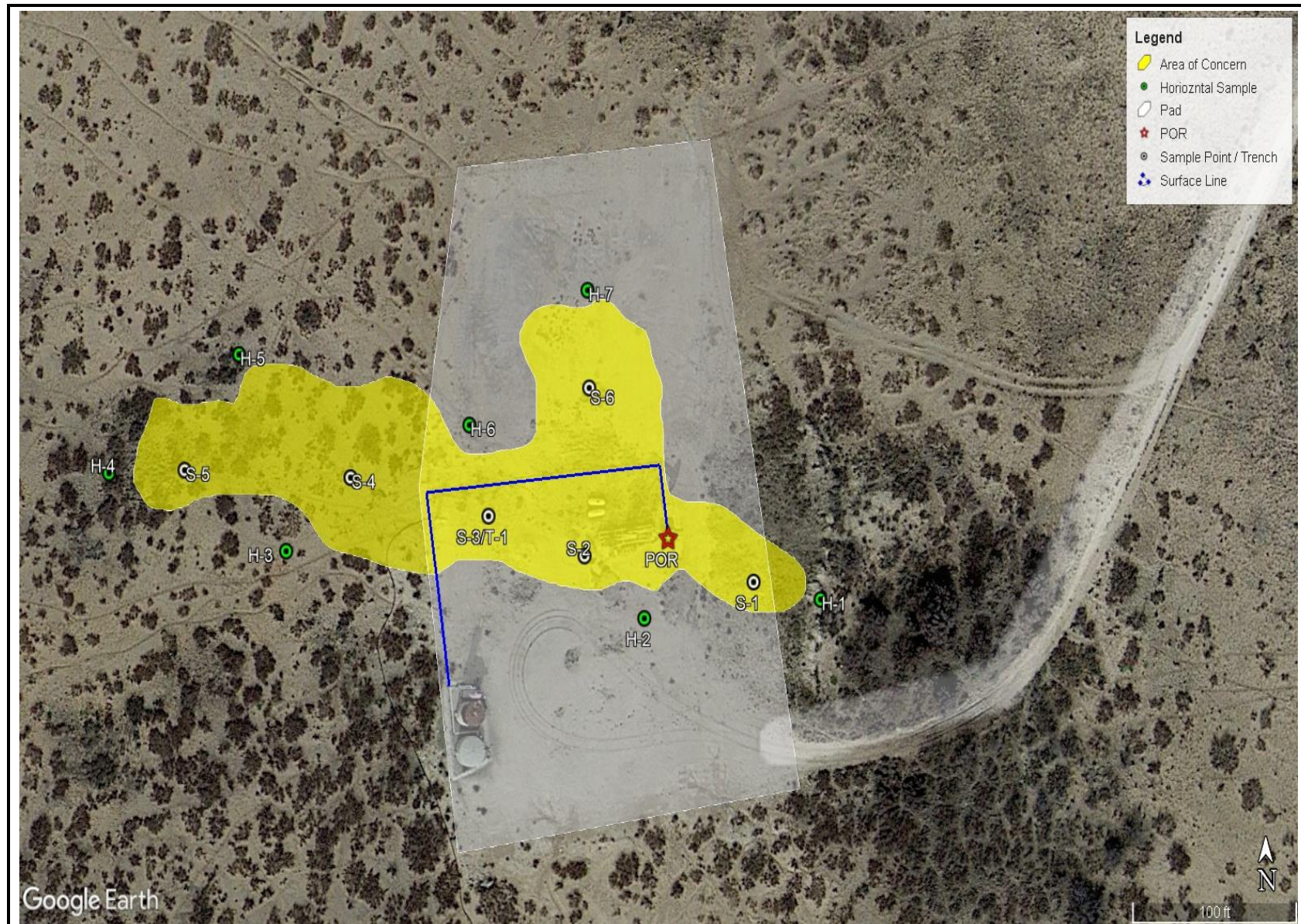




TOPOGRAPHIC MAP
COG OPERATING
FEDERAL 29 Z 002 (07.16.22)
EDDY COUNTY, NEW MEXICO
32.5425, -104.3108



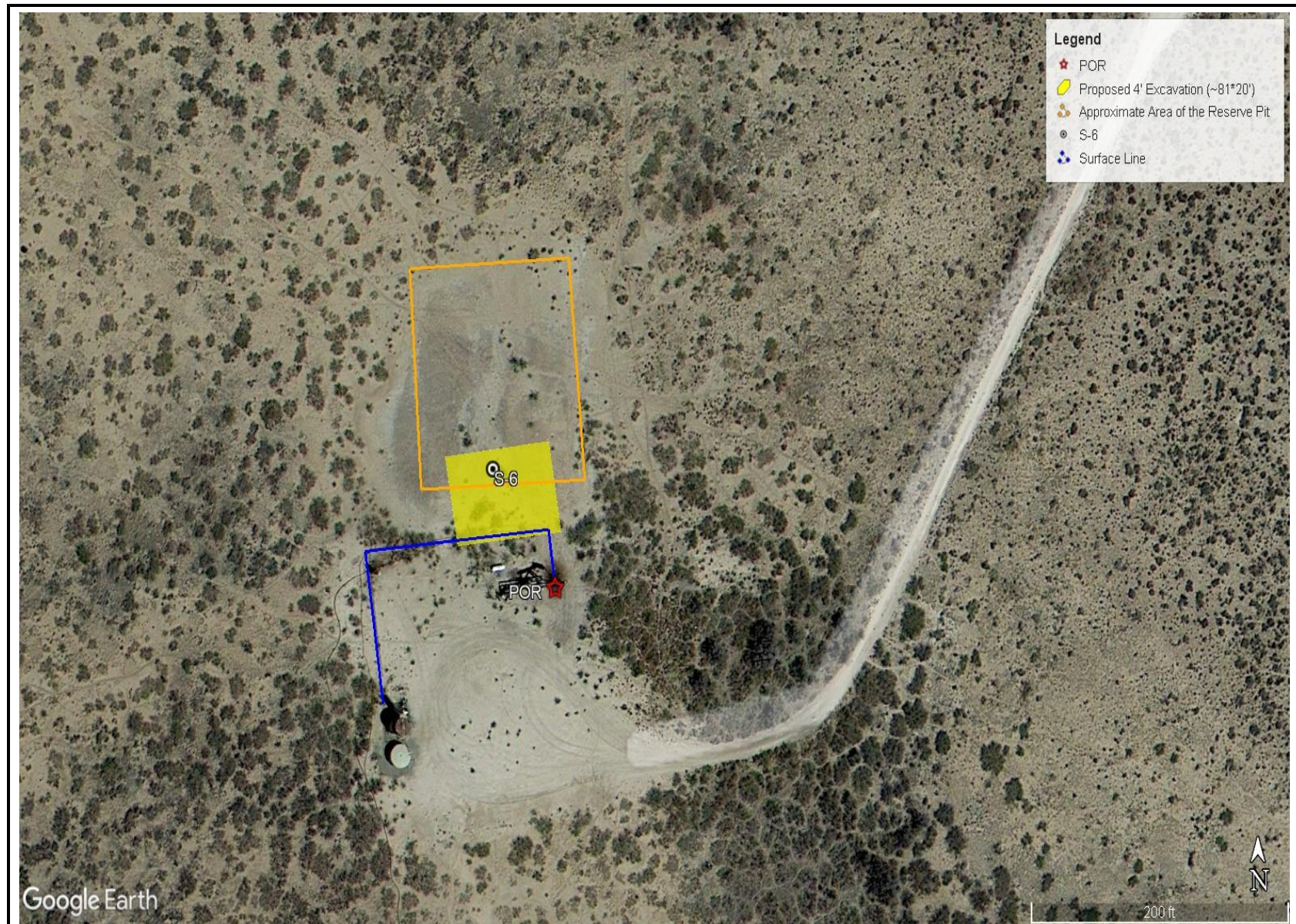
FIGURE 2



SAMPLE LOCATION MAP
COG OPERATING
FEDERAL 29 Z 002 (07.16.22)
EDDY COUNTY, NEW MEXICO
32.5425, -104.3108



FIGURE 3



PROPOSED EXCAVATION DEPTH MAP
COG OPERATING
FEDERAL 29 Z 002 (07.16.22)
EDDY COUNTY, NEW MEXICO
32.5425, -104.3108



FIGURE 4

APPENDIX A

CARMONA RESOURCES



Table 1
COG
Federal 29 Z #2 (07.16.22)
Eddy County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
S-1	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	12.0
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	33.0
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	60.2
S-2	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	12.3
	"	1.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	14.7
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	18.6
	"	2.5	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	14.0
S-3	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	18.3
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	19.6
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	16.6
	"	2.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	815
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	161
	"	3.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,090
	"	4.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	1,560
T-1	12/9/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	34.0
	"	1.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	63.9
	"	2.0	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	344
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	492
	"	4.0	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	228
	"	5.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	85.6
S-4	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	18.3
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	19.6
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	16.6
S-5	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	19.1
	"	1.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	12.6
	"	2.0	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	16.0
S-6	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	3,860
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	2,320
	"	2.0	<50.0	79.1	<50.0	79.1	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	773
	"	2.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	1,630
	"	3.0	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	1,540
	"	3.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,170
	"	4.0	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	291
	"	4.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	293
Regulatory Criteria^A						100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(S) Sample Point

(T) Trench

 Proposed Excavation

Table 1
COG
Federal 29 Z #2 (07.16.22)
Eddy County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
H-1	9/20/2022	0-0.5	<50.0	76.7	<50.0	76.7	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	15.3
H-2	9/20/2022	0-0.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	220
H-3	9/20/2022	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	8.83
H-4	9/20/2022	0-0.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	11.3
H-5	9/20/2022	0-0.5	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	9.39
H-6	9/20/2022	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	8.84
H-7	9/20/2022	0-0.5	<49.8	99.5	<49.8	99.5	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	103
Regulatory Criteria ^A						100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(H) Horizontal

APPENDIX B

CARMONA RESOURCES



PHOTOGRAPHIC LOG

Concho Operating, LLC

Photograph No. 1

Facility: Federal 29 Z 002H (07.16.22)

County: Eddy County, New Mexico

Description:

View South, area of sample point S-1.



Photograph No. 2

Facility: Federal 29 Z 002H (07.16.22)

County: Eddy County, New Mexico

Description:

View West, areas of sample points S-2 and S-3.



Photograph No. 3

Facility: Federal 29 Z 002H (07.16.22)

County: Eddy County, New Mexico

Description:

View West, areas of sample points S-4 and S-5.



PHOTOGRAPHIC LOG**Concho Operating, LLC****Photograph No. 4****Facility:** Federal 29 Z 002H (07.16.22)**County:** Eddy County, New Mexico**Description:**

View Northeast, area of sample point S-6.

**Photograph No. 5****Facility:** Federal 29 Z 002H (07.16.22)**County:** Eddy County, New Mexico**Description:**

View East, area of S-3 (Trench-1).



APPENDIX C

CARMONA RESOURCES



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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name _____	Title: _____
Signature: <u>Patricia Espinoza</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: _____

L48 Spill Volume Estimate Form									
Facility Name & Number:		Federal 29 Z #2							
Asset Area:		DBWN							
Release Discovery Date & Time:		7.15.22							
Release Type:		Oil Mixture							
Provide any known details about the event:		Packing Blow out							
Spill Calculation - Subsurface Spill - Rectangle									
Was the release on pad or off-pad?				See reference table below					
Has it rained at least a half inch in the last 24 hours?				See reference table below					
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	180.0	60.0	0.10	10.50%	16.020	1.682	50.00%	0.841	0.841
Rectangle B					0.000	0.000	50.00%	0.000	0.000
Rectangle C					0.000	0.000		0.000	0.000
Rectangle D					0.000	0.000		0.000	0.000
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Rectangle J					0.000	0.000		0.000	0.000
Total Volume Release:						1.682		0.841	0.841

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

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

CONDITIONS

Action 130057

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 130057
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	8/1/2022

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

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

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

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

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

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: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

APPENDIX D

CARMONA RESOURCES



NEAREST WATER WELL

COG OPERATING

Legend

- 0.50 Mile Radius
- 0.70 Miles
- 1.55 Miles
- 1.61 Miles
- 1.81 Miles
- Federal 29 Z #2
- NMSEO Water Well
- USGS Water Well



HIGH KARST

COG OPERATING

Legend

-  Federal 29 Z #2
-  High
-  Medium

Brantley Lake State Park

Federal 29 Z #2

Pecos



1 mi



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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00419	C	CUB	ED	3	3	4	19	20S	27E	563904	3601904*	1391	1813		
RA 03979		RA	ED	1	1	3	21	20S	27E	566306	3602539*	2309	190		
RA 10049		RA	ED	4	3	1	21	20S	27E	566506	3602744*	2595	200		
RA 04764		RA	ED		3	1	21	20S	27E	566407	3602845*	2608	171	150	21
RA 05857		RA	ED	2	2	2	20	20S	27E	566104	3603346*	2861			
C 01182	C	ED		1	1	4	36	20S	26E	562296	3599260*	2921	150	135	15
RA 07841	RA	ED		1	1	21	20S	27E	566408	3603251*	2936	200	140	60	

Average Depth to Water: **141 feet**

Minimum Depth: **135 feet**

Maximum Depth: **150 feet**

Record Count: 7

UTM NAD83 Radius Search (in meters):

Easting (X): 564769.94

Northing (Y): 3600814.18

Radius: 4000

*UTM location was derived from PLSS - see Help

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

7/29/22 9:48 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
New Mexico

GO

Click to hideNews Bulletins

- Explore the NEW [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for New Mexico

Click to hide state-specific text

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 323229104175401

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 323229104175401 20S.27E.29.441131

Eddy County, New Mexico
Latitude 32°32'29", Longitude 104°17'54" NAD27
Land-surface elevation 3,199 feet above NAVD88
The depth of the well is 125 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1948-10-06			D 62610		3121.75	NGVD29	1		Z	
1948-10-06			D 62611		3123.30	NAVD88	1		Z	
1948-10-06			D 72019	75.70			1		Z	
1953-03-05			D 62610		3118.79	NGVD29	P		Z	
1953-03-05			D 62611		3120.34	NAVD88	P		Z	
1953-03-05			D 72019	78.66			P		Z	
1953-03-12	21:23 UTC		m 62610		3118.42	NGVD29	P		S	USGS
1953-03-12	21:23 UTC		m 62611		3119.97	NAVD88	P		S	USGS
1953-03-12	21:23 UTC		m 72019	79.03			P		S	USGS
1953-04-03			D 62610		3117.75	NGVD29	1		Z	
1953-04-03			D 62611		3119.30	NAVD88	1		Z	
1953-04-03			D 72019	79.70			1		Z	
1953-06-12			D 62610		3115.87	NGVD29	1		Z	
1953-06-12			D 62611		3117.42	NAVD88	1		Z	

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1953-06-12			D 72019	81.58			1	Z		
1953-07-02			D 62610		3115.00	NGVD29	1	Z		
1953-07-02			D 62611		3116.55	NAVD88	1	Z		
1953-07-02			D 72019	82.45			1	Z		
1953-07-17			D 62610		3114.58	NGVD29	1	Z		
1953-07-17			D 62611		3116.13	NAVD88	1	Z		
1953-07-17			D 72019	82.87			1	Z		
1953-08-10			D 62610		3113.91	NGVD29	1	Z		
1953-08-10			D 62611		3115.46	NAVD88	1	Z		
1953-08-10			D 72019	83.54			1	Z		
1953-09-19			D 62610		3114.23	NGVD29	1	Z		
1953-09-19			D 62611		3115.78	NAVD88	1	Z		
1953-09-19			D 72019	83.22			1	Z		
1953-10-31			D 62610		3114.57	NGVD29	1	Z		
1953-10-31			D 62611		3116.12	NAVD88	1	Z		
1953-10-31			D 72019	82.88			1	Z		
1953-11-20			D 62610		3114.65	NGVD29	1	Z		
1953-11-20			D 62611		3116.20	NAVD88	1	Z		
1953-11-20			D 72019	82.80			1	Z		
1953-12-08			D 62610		3114.77	NGVD29	1	Z		
1953-12-08			D 62611		3116.32	NAVD88	1	Z		
1953-12-08			D 72019	82.68			1	Z		
1954-01-18			D 62610		3116.74	NGVD29	1	Z		
1954-01-18			D 62611		3118.29	NAVD88	1	Z		
1954-01-18			D 72019	80.71			1	Z		
1954-03-15			D 62610		3117.63	NGVD29	1	Z		
1954-03-15			D 62611		3119.18	NAVD88	1	Z		
1954-03-15			D 72019	79.82			1	Z		
1954-04-09			D 62610		3116.99	NGVD29	1	Z		
1954-04-09			D 62611		3118.54	NAVD88	1	Z		
1954-04-09			D 72019	80.46			1	Z		
1954-05-28			D 62610		3115.62	NGVD29	1	Z		
1954-05-28			D 62611		3117.17	NAVD88	1	Z		
1954-05-28			D 72019	81.83			1	Z		
1954-06-25			D 62610		3115.07	NGVD29	1	Z		
1954-06-25			D 62611		3116.62	NAVD88	1	Z		
1954-06-25			D 72019	82.38			1	Z		
1954-07-30			D 62610		3113.51	NGVD29	1	Z		
1954-07-30			D 62611		3115.06	NAVD88	1	Z		
1954-07-30			D 72019	83.94			1	Z		
1954-09-28			D 62610		3113.06	NGVD29	1	Z		
1954-09-28			D 62611		3114.61	NAVD88	1	Z		
1954-09-28			D 72019	84.39			1	Z		
1954-10-18			D 62610		3113.87	NGVD29	1	Z		
1954-10-18			D 62611		3115.42	NAVD88	1	Z		
1954-10-18			D 72019	83.58			1	Z		
1954-11-30			D 62610		3116.92	NGVD29	1	Z		
1954-11-30			D 62611		3118.47	NAVD88	1	Z		
1954-11-30			D 72019	80.53			1	Z		
1954-12-31			D 62610		3118.45	NGVD29	1	Z		

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1954-12-31			D	62611	3120.00	NAVD88	1	Z		
1954-12-31			D	72019	79.00		1	Z		
1955-01-28			D	62610	3119.38	NGVD29	1	Z		
1955-01-28			D	62611	3120.93	NAVD88	1	Z		
1955-01-28			D	72019	78.07		1	Z		
1955-02-25			D	62610	3119.01	NGVD29	1	Z		
1955-02-25			D	62611	3120.56	NAVD88	1	Z		
1955-02-25			D	72019	78.44		1	Z		
1955-03-12			D	62610	3118.42	NGVD29	1	Z		
1955-03-12			D	62611	3119.97	NAVD88	1	Z		
1955-03-12			D	72019	79.03		1	Z		
1955-03-25			D	62610	3117.95	NGVD29	1	Z		
1955-03-25			D	62611	3119.50	NAVD88	1	Z		
1955-03-25			D	72019	79.50		1	Z		
1955-04-26			D	62610	3117.50	NGVD29	1	Z		
1955-04-26			D	62611	3119.05	NAVD88	1	Z		
1955-04-26			D	72019	79.95		1	Z		
1955-05-24			D	62610	3116.45	NGVD29	1	Z		
1955-05-24			D	62611	3118.00	NAVD88	1	Z		
1955-05-24			D	72019	81.00		1	Z		
1955-06-17			D	62610	3115.42	NGVD29	1	Z		
1955-06-17			D	62611	3116.97	NAVD88	1	Z		
1955-06-17			D	72019	82.03		1	Z		
1955-07-26			D	62610	3113.76	NGVD29	1	Z		
1955-07-26			D	62611	3115.31	NAVD88	1	Z		
1955-07-26			D	72019	83.69		1	Z		
1955-08-30			D	62610	3114.73	NGVD29	1	Z		
1955-08-30			D	62611	3116.28	NAVD88	1	Z		
1955-08-30			D	72019	82.72		1	Z		
1955-09-22			D	62610	3115.31	NGVD29	1	Z		
1955-09-22			D	62611	3116.86	NAVD88	1	Z		
1955-09-22			D	72019	82.14		1	Z		
1955-10-19			D	62610	3117.12	NGVD29	1	Z		
1955-10-19			D	62611	3118.67	NAVD88	1	Z		
1955-10-19			D	72019	80.33		1	Z		
1955-11-23			D	62610	3120.38	NGVD29	1	Z		
1955-11-23			D	62611	3121.93	NAVD88	1	Z		
1955-11-23			D	72019	77.07		1	Z		
1955-12-28			D	62610	3122.85	NGVD29	1	Z		
1955-12-28			D	62611	3124.40	NAVD88	1	Z		
1955-12-28			D	72019	74.60		1	Z		
1956-01-28			D	62610	3123.08	NGVD29	1	Z		
1956-01-28			D	62611	3124.63	NAVD88	1	Z		
1956-01-28			D	72019	74.37		1	Z		
1957-01-24			D	62610	3113.70	NGVD29	P	Z		
1957-01-24			D	62611	3115.25	NAVD88	P	Z		
1957-01-24			D	72019	83.75		P	Z		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Eddy County, New Mexico
Latitude 32°33'36", Longitude 104°17'35" NAD27
Land-surface elevation 3,222 feet above NAVD88
The depth of the well is 190 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
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Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1961-01-03			D 62610		3109.46	NGVD29	1		Z	
1961-01-03			D 62611		3111.02	NAVD88	1		Z	
1961-01-03			D 72019	110.98			1		Z	
1963-09-04			D 62610		3100.29	NGVD29	1		Z	
1963-09-04			D 62611		3101.85	NAVD88	1		Z	
1963-09-04			D 72019	120.15			1		Z	
1984-02-28			D 62610		3108.53	NGVD29	1		Z	
1984-02-28			D 62611		3110.09	NAVD88	1		Z	
1984-02-28			D 72019	111.91			1		Z	
1989-02-14			D 62610		3110.41	NGVD29	1		Z	
1989-02-14			D 62611		3111.97	NAVD88	1		Z	
1989-02-14			D 72019	110.03			1		Z	
1993-02-10			D 62610		3108.55	NGVD29	1		S	
1993-02-10			D 62611		3110.11	NAVD88	1		S	

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1993-02-10			D	72019	111.89		1	S		
1994-02-11			D	62610	3105.41	NGVD29	1	S		
1994-02-11			D	62611	3106.97	NAVD88	1	S		
1994-02-11			D	72019	115.03		1	S		
1999-01-28			D	62610	3105.12	NGVD29	1	S	USGS	
1999-01-28			D	62611	3106.68	NAVD88	1	S	USGS	
1999-01-28			D	72019	115.32		1	S	USGS	
2015-01-12	20:45 UTC		m	62610	3108.31	NGVD29	1	S	NM001	
2015-01-12	20:45 UTC		m	62611	3109.87	NAVD88	1	S	NM001	
2015-01-12	20:45 UTC		m	72019	112.13		1	S	NM001	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
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Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	NM001	New Mexico State Engineers Office
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)	
		(quarters are smallest to largest)				X	Y
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng
	RA 04764	3	1	21	20S	27E	566407 3602845*
Driller License: 28		Driller Company: SMITH, A.F.					
Driller Name: SMITH, A.F.							
Drill Start Date: 02/01/1963		Drill Finish Date: 02/02/1963		Plug Date:			
Log File Date: 02/21/1963		PCW Rev Date:		Source: Shallow			
Pump Type:		Pipe Discharge Size:		Estimated Yield:			
Casing Size:		Depth Well: 171 feet		Depth Water: 150 feet			

*UTM location was derived from PLSS - see Help

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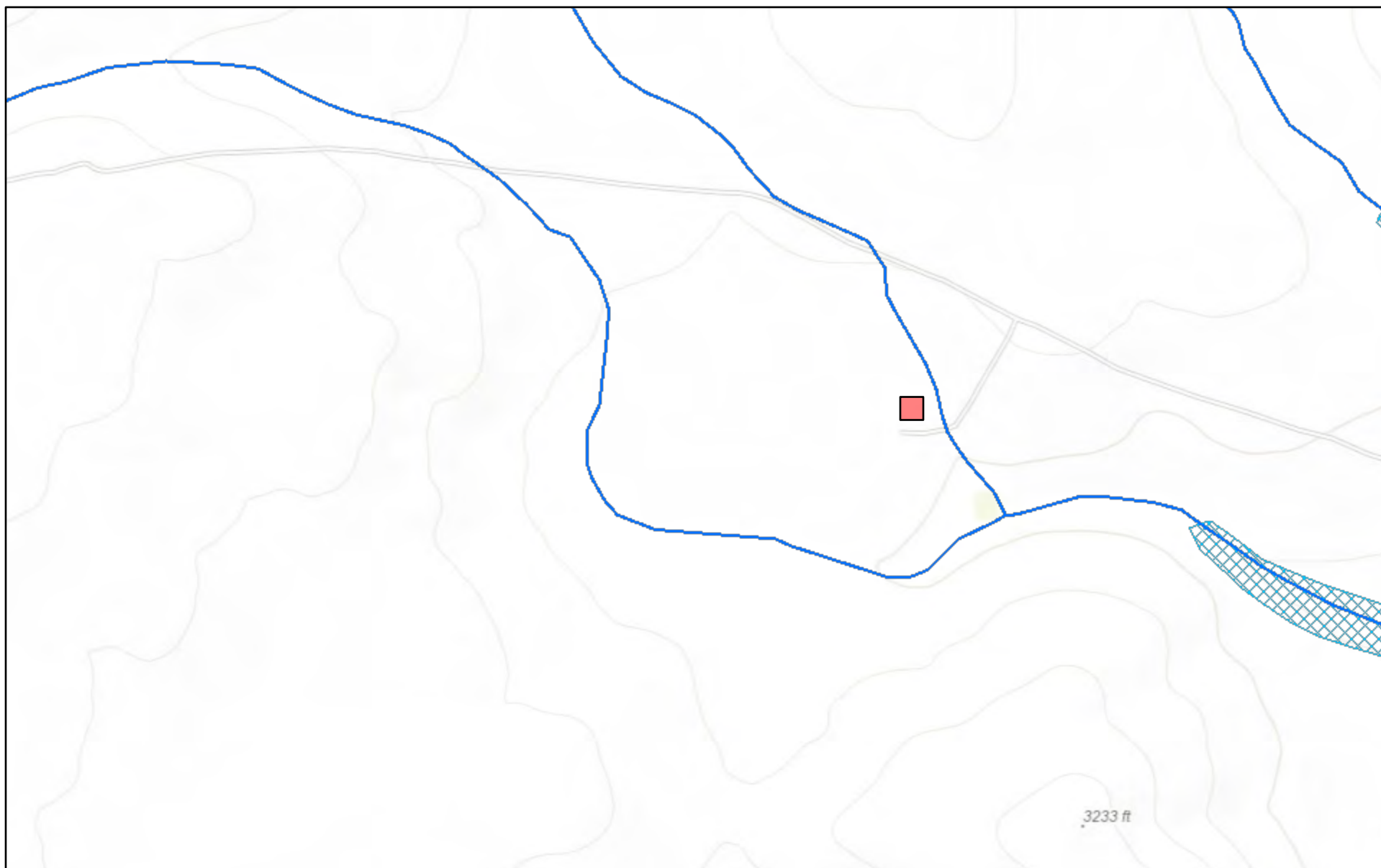
Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)						(quarters are smallest to largest)		(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y		
C	01182	1	1	4	36	20S	26E	562296	3599260*		
x											
Driller License:		30		Driller Company:		BARRON, EMMETT					
Driller Name:		BARRON, EMMETT									
Drill Start Date:		04/06/1964		Drill Finish Date:		04/10/1964		Plug Date:			
Log File Date:		05/01/1964		PCW Rcv Date:				Source:		Shallow	
Pump Type:				Pipe Discharge Size:				Estimated Yield:			
Casing Size:		7.00		Depth Well:		150 feet		Depth Water:		135 feet	
x											
Water Bearing Stratifications:				Top	Bottom	Description					
				140	150	Limestone/Dolomite/Chalk					
x											

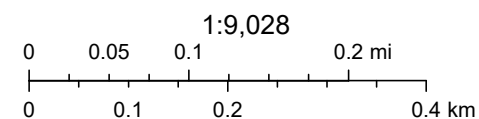
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New Mexico NFHL Data



July 29, 2022



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

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Appendix C – Previously Submitted and Conditionally Approved Workplan; TRC



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PROPOSED VARIANCE REQUEST

ConocoPhillips
Federal 29 Z 002H
Eddy County, New Mexico
Unit Letter "L", Section 29, Township 20 South, Range 27 East
Latitude 32.5425° North, Longitude 104.3108° West
NMOCD Reference No. NAPP2221331648

Prepared For:

ConocoPhillips
600 W Illinois Avenue
Midland, Texas 79701

Prepared By:

TRC Environmental Corporation
10 Desta Drive, Suite 130E
Midland, Texas 79705

September 2023

Misti Bryant
Misti Bryant
Staff Geologist

Jared E. Stoffel
Jared E. Stoffel, PG
Project Manager



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Figure 2 – Sample Locations and Proposed Excavation

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APPENDICES

Appendix A – Revised Release Notification and Corrective Action (Form C-141)

Appendix B – Site Characterization Summary

Appendix C – Previously Submitted and Approved Workplan

Appendix D – Photographic Documentation



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INTRODUCTION & SITE BACKGROUND

TRC Environmental Corporation (TRC), on behalf of ConocoPhillips, has prepared this *Proposed Variance Request* for the Release Site known as the Federal 29 Z 002H (the Site). The legal description of the Site is Unit Letter "L", Section 29, Township 20 South, Range 27 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the Site are N 32.5425°, W 104.3108°. **Figure 1** is a topographic map of the Site.

SITE BACKGROUND

On July 16, 2022, ConocoPhillips (COP) discovered a crude oil release had occurred at the Site. The Release was attributed to a packing blowout. On the discovery date, COP notified the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO) of the Release. The Release was assigned an NMOCD Reference number of NAPP2221331648. On August 01, 2022, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated 1.5 barrels (bbls) of crude oil was released and zero (0) bbls of crude oil was recovered. The Release affected an area measuring approximately 10,800 square feet (sq. ft.). The C-141 indicated the impacted area was located on and off the location pad. A copy of the submitted Form C-141 for the Release is provided in **Appendix A**. The Site location is depicted in **Figure 1**. **Appendix B** document the characterization parameters of the Site. The affected area is depicted in **Figure 2**.

REGULATORY FRAMEWORK

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.70 miles Southeast of the site in S29, T20S, R27E and was drilled in 1957. The well has a reported depth to groundwater of 83.75 feet below ground surface (ft bgs). A copy of the associated Point of Diversion Summary report is attached in **Appendix B**.

Based on the inferred depth to groundwater at the Federal 29 Z 002H Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* may not warrant the most stringent closure criteria listed, due to the lack of definitive depth to groundwater data. However, the Federal 29 Z 002H is within 300 feet of a significant watercourse and/or wetland denoted as a riverine in **Appendix B**. Additionally, the Federal 29 Z 002H is located in the 'high karst' area as outlined in Bureau of Land Management (BLM) publicly available Karst Potential Map and is provided in **Appendix B**. The NMOCD stance on the regulation of releases at Sites adjacent to flowing or significant watercourses, wetlands, and 'high karst' areas requires that COP utilize the most stringent NMOCD Closure Criteria for Soils Impacted by a Release for the Federal 29 Z 002H as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 100 mg/kg
- Chloride – 600 mg/kg



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SOIL INVESTIGATION SUMMARY AND PREVIOUSLY SUBMITTED AND APPROVED WORKPLAN

On September 20, 2022, Carmona Resources, LLC (Carmona Resources) performed site assessment activities to evaluate soil impacts stemming from the release. A total of six (6) sample points and seven (7) horizontal samples were advanced to depths ranging from the surface to 4.5 ft bgs inside and surrounding the release area to evaluate the vertical and horizontal extent. See **Figure 2** for the soil sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 300.0. Vertical delineation was not achieved due to the dense layer encountered. Horizontal delineation was achieved. Soil sample locations H-1 through H-7 exhibited concentrations below the regulatory limits for benzene, total BTEX, TPH, and chloride. **Table 1** includes the tabulated data provided by Carmona Resources for convenience.

Due to the heavy rainfall events and lack of complete vertical delineation, Carmona Resources returned to the Site on December 9, 2022, to vertically delineate the area of S-3 and evaluate soil impacts stemming from the release. One (1) trench (T-1) was installed to a total depth from surface to 6.0 ft below ground surface. Soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. The area of Trench-1 showed no chloride concentrations above NMOCD guidelines from surface to 6.0 ft below ground surface. The rain appears to have diluted or migrated the elevated chloride concentrations during the rainfall events.

Based on delineation data, the previously submitted and approved workplan proposed excavating the area represented by sample location S-6 to a depth of approximately 4 ft bgs, with confirmation samples on a 400 sq. ft. basis to confirm removal. The previously submitted and approved workplan is included as **Appendix C**.

The workplan was submitted to the NMOCD on December 15, 2022. The NMOCD approved the workplan on March 17, 2023 with the following conditional response:

The Remediation Plan is Conditionally Approved. This release is in a high karst area and will need to be remediated to the strictest closure criteria of <50' depth to groundwater from Table 1 of the spill rule. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. The variance for 400 ft² confirmation samples is approved. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Any contaminants left in place will need to be fully delineated and require a facility deconstruction to qualify for a deferral. Please remove contaminants with alternative methods around oil/gas equipment. The work will need to occur in 90 days after the work plan has been approved.



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PROPOSED VARIANCE REQUEST FOR APPROVED REMEDIATION WORKPLAN

On June 21, 2023, TRC requested an extension on the behalf of COP to confirm Site conditions prior to initiating remediation activities. The NMOCD granted the extension to September 21, 2023.

On July 13, 2023, TRC notified the NMOCD of the intent to begin remediation on July 17th. TRC completed the pre-remediation Site kickoff on July 17th, at which time no hydrocarbon surface staining was noted in the area to be remediated – soil sample location S-6. The initial workplan assumed S-6 was at the edge of the former reserve pit footprint, but an attempt to confirm prior to initiating remediation indicated S-6 was within the former reserve pit footprint. TRC attempted to determine the lateral extents of chloride concentrations associated with soil sample location S-6, and initial field screen data showed elevated chloride concentrations across the former reserve pit area. Elevated chloride concentrations in this area appear to be related to the former reserve pit rather than the Release. Photographic documentation is provided as **Appendix D**.

TRC did not begin the remediation due to the former reserve pit findings. COP and TRC reviewed all the data and noted the Release was a non-reportable (less than 5 bbl of fluid) overspray release of crude oil only. The overspray mechanism typically limits soil impacts to surface only and there were no produced water fluids reported. The elevated chloride concentrations to approximately 3.5 ft bgs are unlikely to be resultant of this non-reportable volume overspray crude oil release. Additionally, no soil samples submitted were affected above NMOCD guidelines for benzene, BTEX, or TPH. The lack of elevated hydrocarbon concentrations across the Site corroborates this interpretation. Prior to initiating remediation according to the approved workplan, COP requested a meeting with the NMOCD with the findings of non-reportable status and elevated chloride concentrations associated with the former reserve pit to clarify the path forward.

COP, TRC, and the NMOCD met virtually on August 2, 2023 to discuss the findings at the Site. During the meeting, the NMOCD indicated that despite the release volume of less than 5 bbls, the C-141 could not be retracted. Additionally, despite the lack of produced water from the Release, the elevated chloride concentrations associated with soil sample location S-6 must be addressed. However, a variance may be requested to the sampling requirements to avoid excavating the entirety of the former reserve pit area.

In response to the meeting on August 2, 2023, COP proposes to excavate the footprint of the overspray release in the area represented by soil sample S-6 to a depth of four (4) ft bgs, which based on the delineation data provided in the formerly approved workplan will remove the documented elevated chloride concentrations above NMOCD guidelines associated with soil sample location S-6. COP would like to respectfully request a variance under NMAC 19.15.29 to the requirement for confirmation sampling for the Release site and will limit the excavation to the indicated footprint and the prescribed four (4) foot depth. COP requests that no floor or sidewall samples be required, as the indicated footprint and four (4) foot depth will remove far more soil than was affected by an overspray release of crude oil only. The estimated volume of soil removed will be approximately 1,050 cubic yards, which will be transported to an NMOCD approved disposal facility. The Site will then be backfilled with locally sourced 'like' material to near original grade.



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COP is prepared to begin the activities outlined in this *Proposed Variance Request* following NMOCD and BLM approval. On completion of remediation activities, a Remediation Summary and Closure Report will be prepared detailing field activities.

If you have any questions, or need any additional information, please feel free to contact myself or Ike Tavaréz by phone or email.

LIMITATION

TRC has prepared this Proposed Variance Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of ConocoPhillips. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ConocoPhillips.

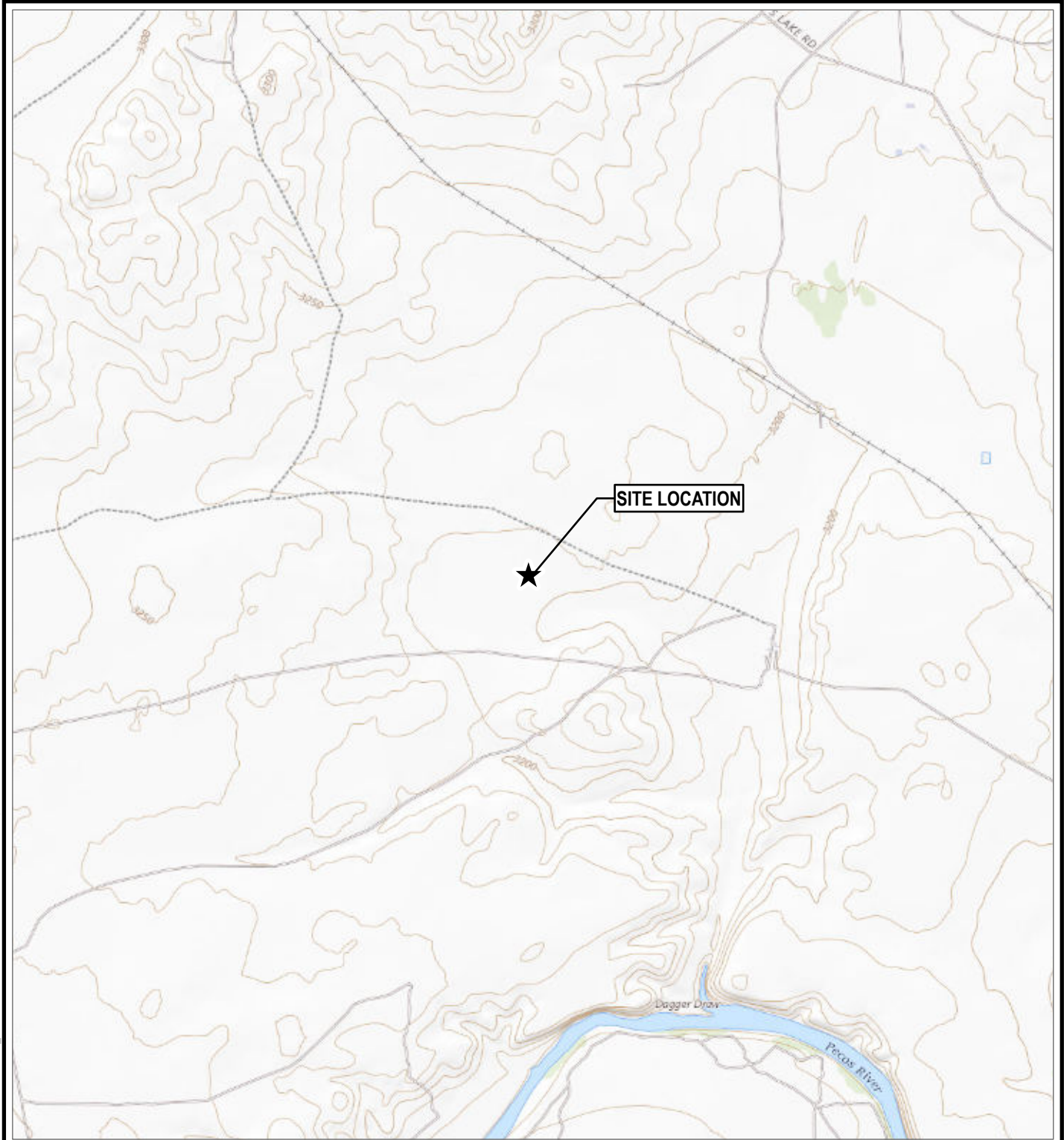


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620 E. Greene Street
Carlsbad, NM 88220
- Copy 3: Ike Tavaréz
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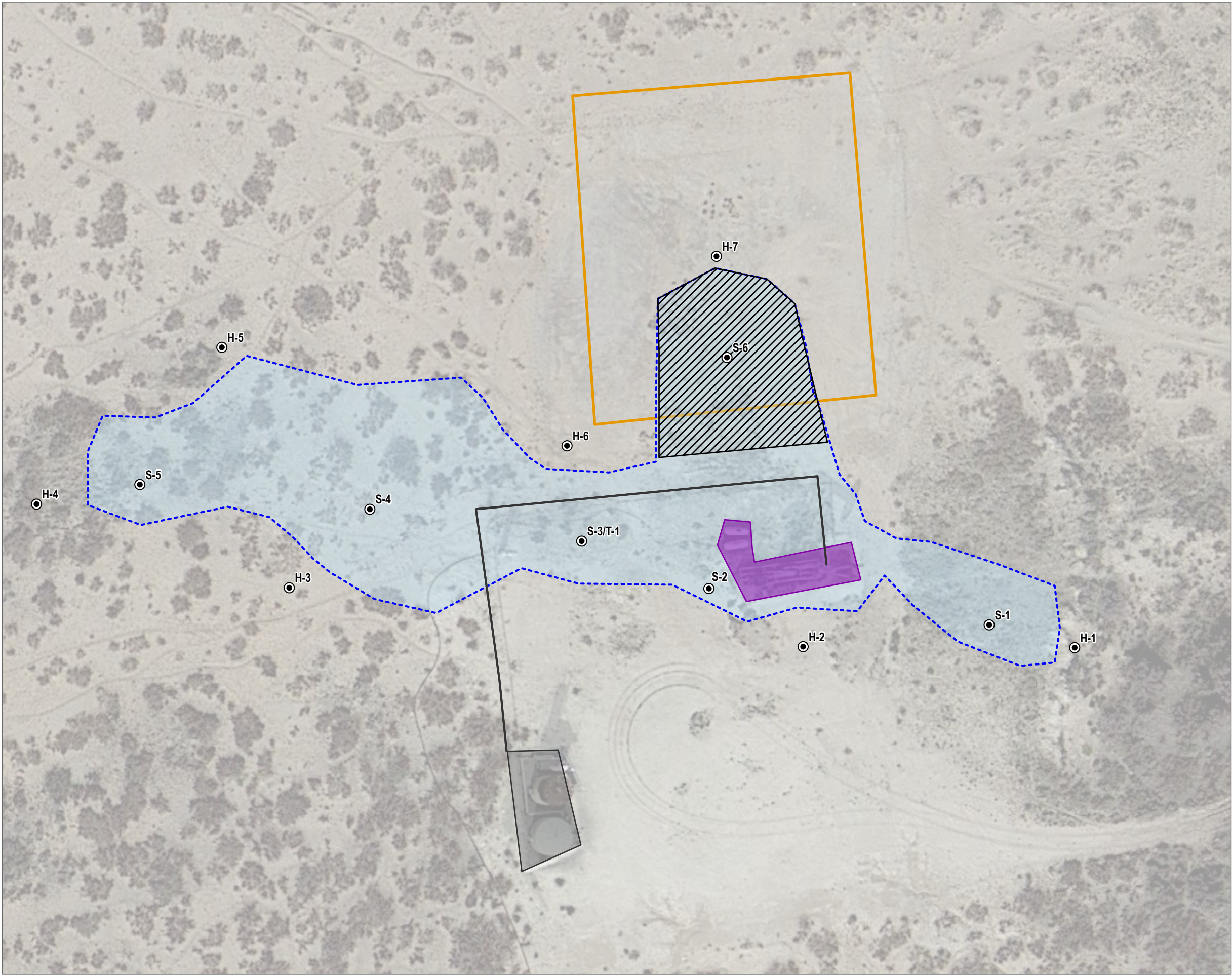


COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
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	TITLE: TOPOGRAPHIC MAP	
	DRAWN BY: S. RAY	PROJ. NO.: 544675.0000.0000
	CHECKED BY: M. BRYANT	FIGURE 1
	APPROVED BY: M. BRYANT	
DATE: AUGUST 2023		
	 1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
	FILE: FEDERAL 29 Z 002H	

BASE MAP: USGS COLOR ORTHO IMAGERY
DATA SOURCES: TRC

Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
-- Saved By: ACLINE on 8/24/2023 08:15:46 AM, File Path: T:\H-PROJECTS\Conocophillips\544675_Federal29Z_002H.aprx, Layout Name: Fig 4 - Sample Location Map



- DELINEATION SAMPLE LOCATION
- SURFACE STEEL LINE
- PIT LOCATION
- ▨ PROPOSED 4' EXCAVATION
- RELEASE AREA
- TANK BATTERY
- WELLHEAD AND ASSOCIATED INFRASTRUCTURE

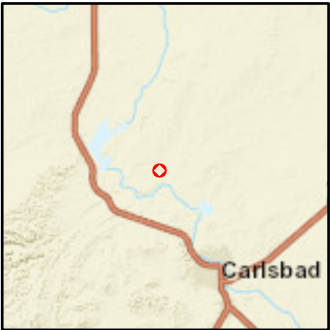
BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC.


NOTES
SAMPLE LOCATIONS AND ANALYTICAL DATA FROM CARMONA RESOURCES
WORKPLAN



1:480
1" = 40'

0 25 50
FEET



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		SAMPLE LOCATIONS AND PROPOSED EXCAVATION MAP	
DRAWN BY:	A. CLINE	PROJ. NO.:	544675.0000.0000
CHECKED BY:	B. TRACY	FIGURE 2	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		
			
FILE:		Federal 29 Z 002H.aprx	

Federal 29 Z 002H
Table 1 - Summary of Carmona Resources Analytical Data

SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	Proposed Soil Status	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Xylenes, Total (mg/Kg)	Total BTEX (mg/Kg)	Gasoline Range Organics (GRO)-C6-C10 (mg/Kg)	Diesel Range Organics (Over C10-C28) (mg/Kg)	Oil Range Organics (Over C28-C36) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
NMOCD Standards	-	-		5	-	-	-	50	-	-	-	100	600
Veritcal Delineation													
S-1 (0-1')	1'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	12.0
S-1 (1.5')	1.5	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	33.0
S-1 (2')	2'	9/20/22	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	60.2
S-2 (0-1')	1'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	12.3
S-2 (1.5')	1.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	14.7
S-2 (2')	2'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	18.6
S-2 (2.5')	2.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.8	<49.8	<49.8	<49.8	14.0
S-3 (0-1')	1'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	43.1
S-3 (1.5')	1.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	59.7
S-3 (2')	2'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	170
S-3 (2.5')	2.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	815
S-3 (3')	3'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	161
S-3 (3.5')	3.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	1,090
S-3 (4')	4'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	1,560
S-4 (0-1')	1'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	18.3
S-4 (1.5')	1.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	19.6
S-4 (2')	2'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	16.6
S-5 (0-1')	1'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	19.1
S-5 (1.5')	1.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	12.6
S-5 (2')	2'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	16.0
S-6 (0-1')	1'	9/20/22	Excavate	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	3,860
S-6 (1.5')	1.5'	9/20/22	Excavate	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	2,320
S-6 (2')	2'	9/20/22	Excavate	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	773
S-6 (2.5')	2.5'	9/20/22	Excavate	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	1,630

Table 1 - Summary of Carmona Resources Analytical Data

SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	Proposed Soil Status	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Xylenes, Total (mg/Kg)	Total BTEX (mg/Kg)	Gasoline Range Organics (GRO)-C6-C10 (mg/Kg)	Diesel Range Organics (Over C10-C28) (mg/Kg)	Oil Range Organics (Over C28-C36) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
NMOCD Standards	-	-		5	-	-	-	50	-	-	-	100	600
S-6 (3')	3'	9/20/22	Excavate	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	1,540
S-6 (3.5')	3.5'	9/20/22	Excavate	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	1,170
S-6 (4')	4'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	<49.8	<49.8	<49.8	291
S-6 (4.5)	4.5	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	293
T-1 (0-1')	1'	12/9/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	34.0
T-1 (1.5')	1.5'	12/9/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	63.9
T-1 (2')	2'	12/9/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	344
T-1 (3')	3'	12/9/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	492
T-1 (4')	4'	12/9/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.8	<49.8	<49.8	<49.8	228
T-1 (5')	5'	12/9/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	85.6
T-1 (6')	6'	12/9/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	177
Horizontal Delineation													
H-1 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	15.3
H-2 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	220
H-3 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	8.83
H-4 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	11.3
H-5 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.8	<49.8	<49.8	<49.8	9.39
H-6 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	8.84
H-7 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	99.5	<49.8	99.5	103

Definitions

X

Analyte analytical result exceeds NMOCD regulatory guideline.

X

Analyte detected above the detection limit at a concentration equal to X.

<x

Analyte not detected at detection limit equal to x.

--

Abbreviations

mg/Kg

Milligrams per Kilogram

TPH

Total Petroleum Hydrocarbon

BTEX

Benzene, Toluene, Ethylbenzene, and Xylenes

NMOCD

New Mexico Oil Conservation District



10 Desta Dr., Suite 150E
Midland, TX 79705

T 432.520.7720
TRCcompanies.com

Appendix A – Release Notification and Corrective Action (Form C-141)

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: _____ Title: _____
Signature: Ake Tavaraz Date: 9/20/2023
email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

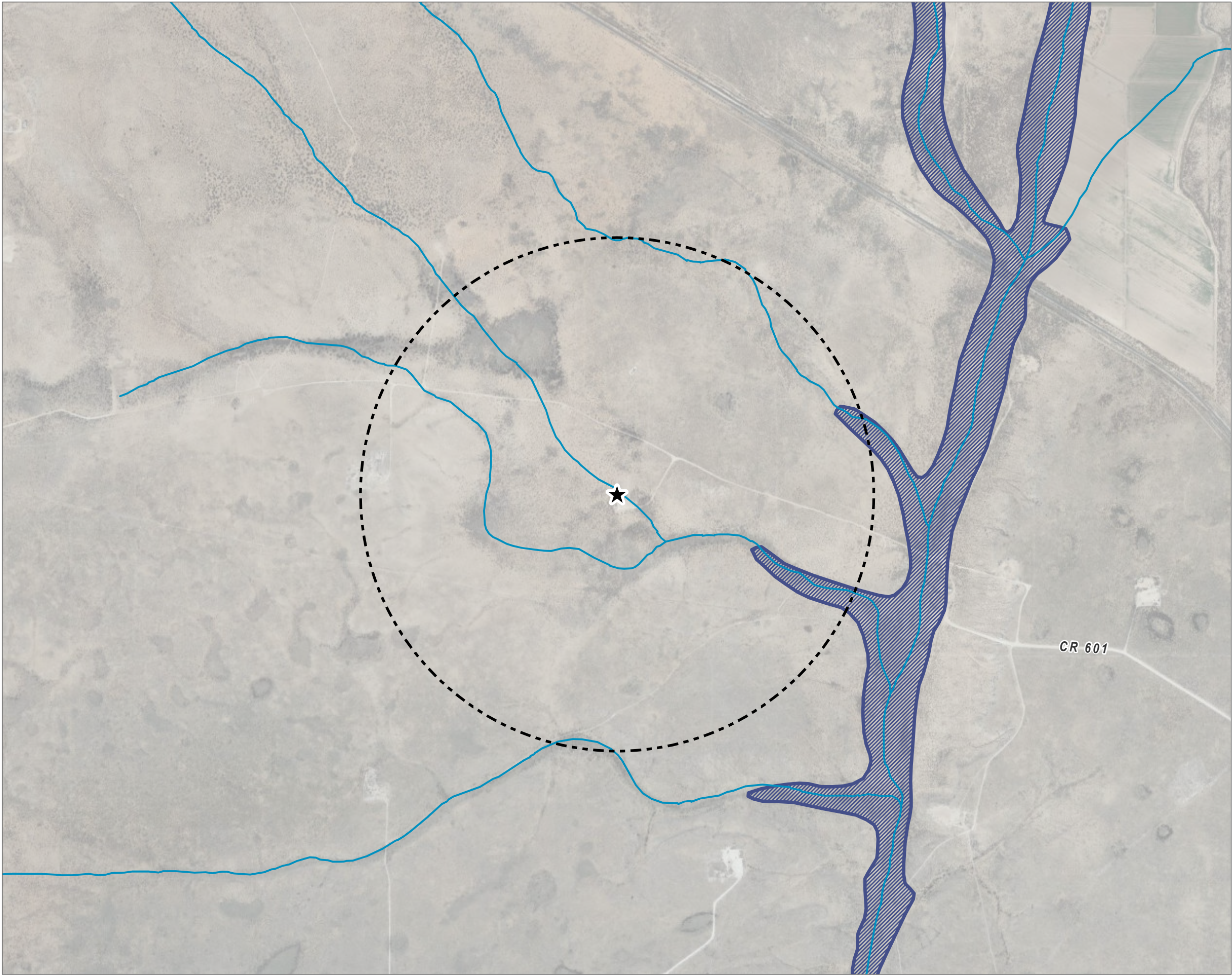
Signature: _____ Date: _____



10 Desta Dr., Suite 150E
Midland, TX 79705

T 432.520.7720
TRCcompanies.com

Appendix B – Site Characterization Summary



- HALF-MILE RADIUS
- SITE LOCATION
- AREA INSIDE OF 100-YEAR FLOODPLAIN
- RIVERINE

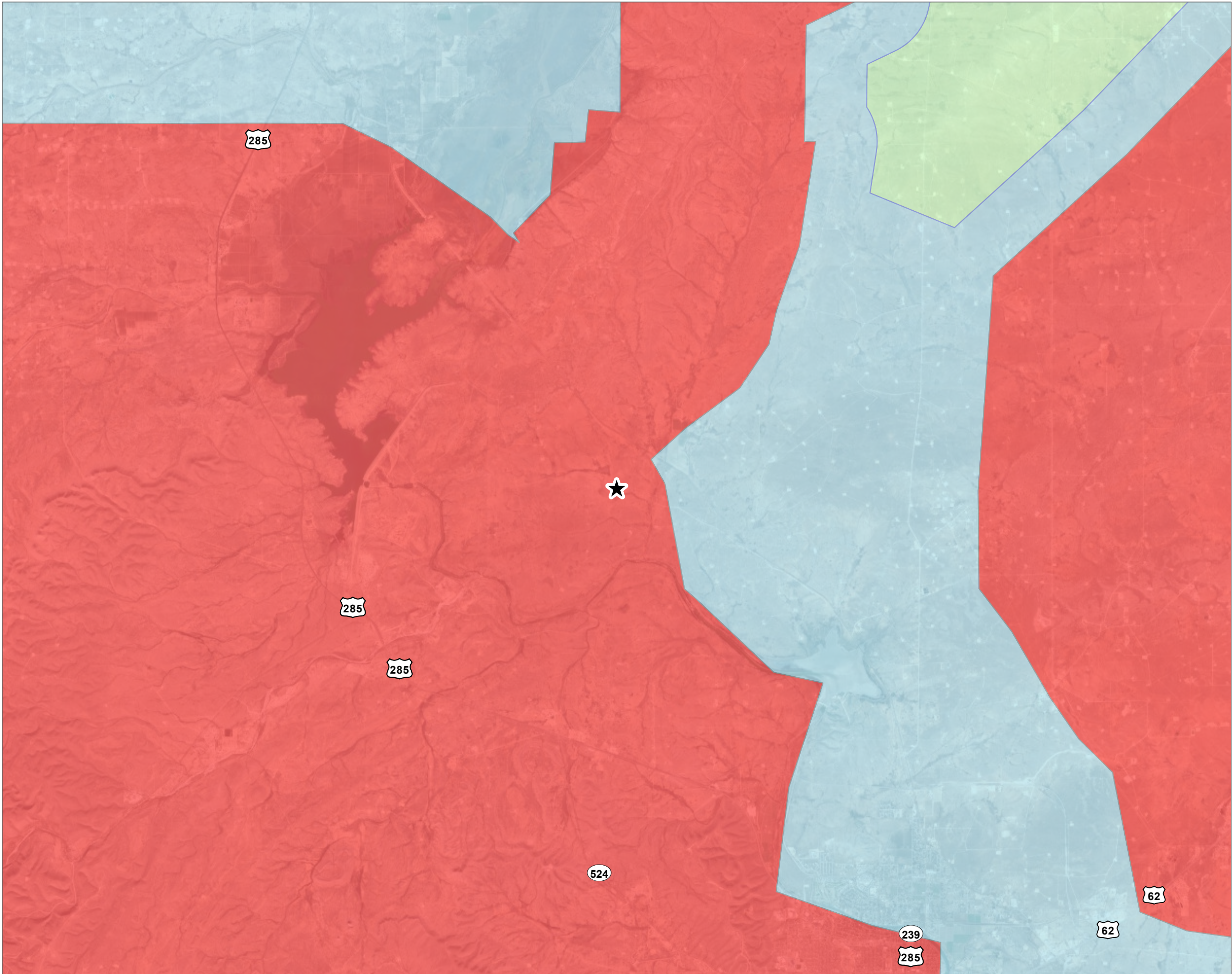
BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC, FEMA, NWI.



1:12,000
1" = 1,000'
0 500 1,000
FEET



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		AERIAL MAP	
DRAWN BY:	S. RAY	PROJ. NO.:	544675.0000.0000
CHECKED BY:	M. BRYANT	APPENDIX B MAP A	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		
		1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
FILE:		Federal 29 Z 002H.aprx	




- ★ SITE LOCATION
- LOW KARST POTENTIAL
- MEDIUM KARST POTENTIAL
- HIGH KARST POTENTIAL

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC.



1:100,000
1" = 2 MILES
0 1 2 MILES



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		KARST POTENTIAL MAP	
DRAWN BY:	S. RAY	PROJ. NO.:	544675.0000.0000
CHECKED BY:	M. BRYANT	APPENDIX B MAP B	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		
		1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
FILE:		Federal 29 Z 002H.aprx	

Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet; Map Rotation: 0
-- Saved By: SRAY on 8/16/2023, 4:58:35 PM; File Path: T:\ConocoPhillips\544675_Federal29Z002H.aprx; Layout Name: Fig 3 - Karst Potential 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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00419	C	CUB	ED	3	3	4	19	20S	27E	563904	3601904*	1391	1813		
RA 03979		RA	ED	1	1	3	21	20S	27E	566306	3602539*	2309	190		
RA 10049		RA	ED	4	3	1	21	20S	27E	566506	3602744*	2595	200		
RA 04764		RA	ED		3	1	21	20S	27E	566407	3602845*	2608	171	150	21
RA 05857		RA	ED	2	2	2	20	20S	27E	566104	3603346*	2861			
C 01182	C	ED		1	1	4	36	20S	26E	562296	3599260*	2921	150	135	15
RA 07841		RA	ED		1	1	21	20S	27E	566408	3603251*	2936	200	140	60

Average Depth to Water: **141 feet**

Minimum Depth: **135 feet**

Maximum Depth: **150 feet**

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 564769.94

Northing (Y): 3600814.18

Radius: 4000

*UTM location was derived from PLSS - see Help

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

7/29/22 9:48 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
New Mexico

GO

Click to hideNews Bulletins

- Explore the NEW [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for New Mexico

Click to hide state-specific text

! Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 323229104175401

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 323229104175401 20S.27E.29.441131

Eddy County, New Mexico
Latitude 32°32'29", Longitude 104°17'54" NAD27
Land-surface elevation 3,199 feet above NAVD88
The depth of the well is 125 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1948-10-06			D 62610		3121.75	NGVD29	1		Z	
1948-10-06			D 62611		3123.30	NAVD88	1		Z	
1948-10-06			D 72019	75.70			1		Z	
1953-03-05			D 62610		3118.79	NGVD29	P		Z	
1953-03-05			D 62611		3120.34	NAVD88	P		Z	
1953-03-05			D 72019	78.66			P		Z	
1953-03-12	21:23 UTC		m 62610		3118.42	NGVD29	P		S	USGS
1953-03-12	21:23 UTC		m 62611		3119.97	NAVD88	P		S	USGS
1953-03-12	21:23 UTC		m 72019	79.03			P		S	USGS
1953-04-03			D 62610		3117.75	NGVD29	1		Z	
1953-04-03			D 62611		3119.30	NAVD88	1		Z	
1953-04-03			D 72019	79.70			1		Z	
1953-06-12			D 62610		3115.87	NGVD29	1		Z	
1953-06-12			D 62611		3117.42	NAVD88	1		Z	

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1953-06-12			D 72019	81.58			1	Z		
1953-07-02			D 62610		3115.00	NGVD29	1	Z		
1953-07-02			D 62611		3116.55	NAVD88	1	Z		
1953-07-02			D 72019	82.45			1	Z		
1953-07-17			D 62610		3114.58	NGVD29	1	Z		
1953-07-17			D 62611		3116.13	NAVD88	1	Z		
1953-07-17			D 72019	82.87			1	Z		
1953-08-10			D 62610		3113.91	NGVD29	1	Z		
1953-08-10			D 62611		3115.46	NAVD88	1	Z		
1953-08-10			D 72019	83.54			1	Z		
1953-09-19			D 62610		3114.23	NGVD29	1	Z		
1953-09-19			D 62611		3115.78	NAVD88	1	Z		
1953-09-19			D 72019	83.22			1	Z		
1953-10-31			D 62610		3114.57	NGVD29	1	Z		
1953-10-31			D 62611		3116.12	NAVD88	1	Z		
1953-10-31			D 72019	82.88			1	Z		
1953-11-20			D 62610		3114.65	NGVD29	1	Z		
1953-11-20			D 62611		3116.20	NAVD88	1	Z		
1953-11-20			D 72019	82.80			1	Z		
1953-12-08			D 62610		3114.77	NGVD29	1	Z		
1953-12-08			D 62611		3116.32	NAVD88	1	Z		
1953-12-08			D 72019	82.68			1	Z		
1954-01-18			D 62610		3116.74	NGVD29	1	Z		
1954-01-18			D 62611		3118.29	NAVD88	1	Z		
1954-01-18			D 72019	80.71			1	Z		
1954-03-15			D 62610		3117.63	NGVD29	1	Z		
1954-03-15			D 62611		3119.18	NAVD88	1	Z		
1954-03-15			D 72019	79.82			1	Z		
1954-04-09			D 62610		3116.99	NGVD29	1	Z		
1954-04-09			D 62611		3118.54	NAVD88	1	Z		
1954-04-09			D 72019	80.46			1	Z		
1954-05-28			D 62610		3115.62	NGVD29	1	Z		
1954-05-28			D 62611		3117.17	NAVD88	1	Z		
1954-05-28			D 72019	81.83			1	Z		
1954-06-25			D 62610		3115.07	NGVD29	1	Z		
1954-06-25			D 62611		3116.62	NAVD88	1	Z		
1954-06-25			D 72019	82.38			1	Z		
1954-07-30			D 62610		3113.51	NGVD29	1	Z		
1954-07-30			D 62611		3115.06	NAVD88	1	Z		
1954-07-30			D 72019	83.94			1	Z		
1954-09-28			D 62610		3113.06	NGVD29	1	Z		
1954-09-28			D 62611		3114.61	NAVD88	1	Z		
1954-09-28			D 72019	84.39			1	Z		
1954-10-18			D 62610		3113.87	NGVD29	1	Z		
1954-10-18			D 62611		3115.42	NAVD88	1	Z		
1954-10-18			D 72019	83.58			1	Z		
1954-11-30			D 62610		3116.92	NGVD29	1	Z		
1954-11-30			D 62611		3118.47	NAVD88	1	Z		
1954-11-30			D 72019	80.53			1	Z		
1954-12-31			D 62610		3118.45	NGVD29	1	Z		

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1954-12-31			D	62611	3120.00	NAVD88	1	Z		
1954-12-31			D	72019	79.00		1	Z		
1955-01-28			D	62610	3119.38	NGVD29	1	Z		
1955-01-28			D	62611	3120.93	NAVD88	1	Z		
1955-01-28			D	72019	78.07		1	Z		
1955-02-25			D	62610	3119.01	NGVD29	1	Z		
1955-02-25			D	62611	3120.56	NAVD88	1	Z		
1955-02-25			D	72019	78.44		1	Z		
1955-03-12			D	62610	3118.42	NGVD29	1	Z		
1955-03-12			D	62611	3119.97	NAVD88	1	Z		
1955-03-12			D	72019	79.03		1	Z		
1955-03-25			D	62610	3117.95	NGVD29	1	Z		
1955-03-25			D	62611	3119.50	NAVD88	1	Z		
1955-03-25			D	72019	79.50		1	Z		
1955-04-26			D	62610	3117.50	NGVD29	1	Z		
1955-04-26			D	62611	3119.05	NAVD88	1	Z		
1955-04-26			D	72019	79.95		1	Z		
1955-05-24			D	62610	3116.45	NGVD29	1	Z		
1955-05-24			D	62611	3118.00	NAVD88	1	Z		
1955-05-24			D	72019	81.00		1	Z		
1955-06-17			D	62610	3115.42	NGVD29	1	Z		
1955-06-17			D	62611	3116.97	NAVD88	1	Z		
1955-06-17			D	72019	82.03		1	Z		
1955-07-26			D	62610	3113.76	NGVD29	1	Z		
1955-07-26			D	62611	3115.31	NAVD88	1	Z		
1955-07-26			D	72019	83.69		1	Z		
1955-08-30			D	62610	3114.73	NGVD29	1	Z		
1955-08-30			D	62611	3116.28	NAVD88	1	Z		
1955-08-30			D	72019	82.72		1	Z		
1955-09-22			D	62610	3115.31	NGVD29	1	Z		
1955-09-22			D	62611	3116.86	NAVD88	1	Z		
1955-09-22			D	72019	82.14		1	Z		
1955-10-19			D	62610	3117.12	NGVD29	1	Z		
1955-10-19			D	62611	3118.67	NAVD88	1	Z		
1955-10-19			D	72019	80.33		1	Z		
1955-11-23			D	62610	3120.38	NGVD29	1	Z		
1955-11-23			D	62611	3121.93	NAVD88	1	Z		
1955-11-23			D	72019	77.07		1	Z		
1955-12-28			D	62610	3122.85	NGVD29	1	Z		
1955-12-28			D	62611	3124.40	NAVD88	1	Z		
1955-12-28			D	72019	74.60		1	Z		
1956-01-28			D	62610	3123.08	NGVD29	1	Z		
1956-01-28			D	62611	3124.63	NAVD88	1	Z		
1956-01-28			D	72019	74.37		1	Z		
1957-01-24			D	62610	3113.70	NGVD29	P	Z		
1957-01-24			D	62611	3115.25	NAVD88	P	Z		
1957-01-24			D	72019	83.75		P	Z		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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0.33 0.28 nadww02



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USGS 323336104173501 20S.27E.21.31112

Eddy County, New Mexico
Latitude 32°33'36", Longitude 104°17'35" NAD27
Land-surface elevation 3,222 feet above NAVD88
The depth of the well is 190 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
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Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1961-01-03			D 62610		3109.46	NGVD29	1		Z	
1961-01-03			D 62611		3111.02	NAVD88	1		Z	
1961-01-03			D 72019	110.98			1		Z	
1963-09-04			D 62610		3100.29	NGVD29	1		Z	
1963-09-04			D 62611		3101.85	NAVD88	1		Z	
1963-09-04			D 72019	120.15			1		Z	
1984-02-28			D 62610		3108.53	NGVD29	1		Z	
1984-02-28			D 62611		3110.09	NAVD88	1		Z	
1984-02-28			D 72019	111.91			1		Z	
1989-02-14			D 62610		3110.41	NGVD29	1		Z	
1989-02-14			D 62611		3111.97	NAVD88	1		Z	
1989-02-14			D 72019	110.03			1		Z	
1993-02-10			D 62610		3108.55	NGVD29	1		S	
1993-02-10			D 62611		3110.11	NAVD88	1		S	

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1993-02-10			D	72019	111.89		1	S		
1994-02-11			D	62610	3105.41	NGVD29	1	S		
1994-02-11			D	62611	3106.97	NAVD88	1	S		
1994-02-11			D	72019	115.03		1	S		
1999-01-28			D	62610	3105.12	NGVD29	1	S	USGS	
1999-01-28			D	62611	3106.68	NAVD88	1	S	USGS	
1999-01-28			D	72019	115.32		1	S	USGS	
2015-01-12	20:45 UTC		m	62610	3108.31	NGVD29	1	S	NM001	
2015-01-12	20:45 UTC		m	62611	3109.87	NAVD88	1	S	NM001	
2015-01-12	20:45 UTC		m	72019	112.13		1	S	NM001	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
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Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	NM001	New Mexico State Engineers Office
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for New Mexico: Water Levels

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0.28 0.24 nadww02



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)	
		(quarters are smallest to largest)				X	Y
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng
	RA 04764	3	1	21	20S	27E	566407 3602845*
Driller License: 28		Driller Company: SMITH, A.F.					
Driller Name: SMITH, A.F.							
Drill Start Date: 02/01/1963		Drill Finish Date: 02/02/1963		Plug Date:			
Log File Date: 02/21/1963		PCW Rev Date:		Source: Shallow			
Pump Type:		Pipe Discharge Size:		Estimated Yield:			
Casing Size:		Depth Well: 171 feet		Depth Water: 150 feet			

*UTM location was derived from PLSS - see Help

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


7/29/22 9:52 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
	C 01182	1	1	4	36	20S	26E	562296	3599260* 
x									
Driller License:	30	Driller Company:				BARRON, EMMETT			
Driller Name:	BARRON, EMMETT								
Drill Start Date:	04/06/1964	Drill Finish Date:				04/10/1964		Plug Date:	
Log File Date:	05/01/1964	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	
Casing Size:	7.00	Depth Well:				150 feet		Depth Water:	135 feet
x									
Water Bearing Stratifications:					Top	Bottom	Description		
					140	150	Limestone/Dolomite/Chalk		

*UTM location was derived from PLSS - see Help

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



10 Desta Dr., Suite 150E
Midland, TX 79705

T 432.520.7720
TRCcompanies.com

Appendix D – Photographic Documentation

Federal 29 Z 002H

Photographic Documentation

Photograph No. 1

Date:
7/25/2022

Direction:
South

Description:
Relase area.



Photograph No. 2

Date:
7/25/2022

Direction:
West

Description:
Release area.



Federal 29 Z 002H

Photographic Documentation

Photograph No. 3

Date:
6/5/2023

Direction:
Northwest

Description:
Release area.



Photograph No. 4

Date:
6/14/2023

Direction:
Northeast

Description:
Release area.





Appendix D – NMOCD Correspondence Log

From: [Bratcher, Michael, EMNRD](#)
To: [Stoffel, Jared](#); [Rodgers, Scott, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648
Date: Tuesday, October 22, 2024 4:26:44 PM
Attachments: [image001.png](#)

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

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Jared et al.,

Due to the site being in a sensitive area, the release is over two years old with only one extension request during that time period, we are obligated, for consistency, to not approve an extension at this time. OCD appreciates the cooperation COP has shown on this one and would ask for that cooperation to continue. If this one got approved, someone down the line would point it out to us when we deny their request. That is where the consistency comes in to play. Hope you understand.

Thank you,

Mike Bratcher

Incident Supervisor
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave | Artesia, NM 88210
(575) 626-0857 |
mike.bratcher@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd>

-
-

From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, October 22, 2024 11:07 AM
To: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

Scott –

Thank you for taking my phone call this morning. As discussed, we met with you, Mike and Robert regarding this incident on May 21, 2024 to determine a path forward, as this was a non-reportable volume overspray release on top of a historical drilling pit. The conclusion of that meeting was that the OCD will require COP to address the chlorides in the pit area. Following the meeting, a path forward was determined internally and because our borings were going to be advanced beyond 30 feet bgs, we had to submit permits through the NMOSE. As this is on

Federal land, we had to get landowner approval through the sundry notice. After all of the proper approvals and permits were in place, we received our permits on October 4, 2024. We have actively been pushing this project forward since our meeting. Would you please reconsider our extension, as we are assessing the pit as requested in the meeting and have been held up by the front side paperwork between the BLM and NMOSE? I am available at your convenience to discuss – thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Tuesday, October 22, 2024 11:05 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

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Good Morning Jared,

Date of discovery for this release is listed as 7/16/2022. A 90-day extension was approved 6/21/2023 until 9/21/2023. The last submittal was rejected 3/15/2024. COP to date, has not kept up with extension requests and over two years have passed since the date of discovery. The site is situated in a High Karst area. Your current request for an extension is denied. No extensions will be approved for this incident.

Thank you,
Scott

Scott Rodgers • Environmental Specialist – Adv.
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov

<http://www.emnrd.nm.gov/ocd>



From: Stoffel, Jared <JStoffel@trccompanies.com>

Sent: Monday, October 21, 2024 3:05 PM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>

Cc: Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>

Subject: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

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Mike, Robert, and Scott-

I would like to request a 90-day extension for the assessment at the Federal 29 Z 002H site – we are currently conducting further assessment of the Site as discussed in our meeting and were delayed by BLM and OSE approvals. Please let us know if you would approve an extension for us to finish our additional assessment and submit a revised workplan. Thank you.

Jared Stoffel, P.G.
Project Manager



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From: [Stoffel, Jared](#)
To: [Rodgers, Scott, EMNRD](#); [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648
Date: Thursday, May 16, 2024 4:33:00 PM
Attachments: [image001.png](#)

Scott – thank you very much. I have sent you all a Teams invite for 1:30 MST (2:30 CST) next Tuesday. Please let me know if anyone didn't receive it. Have a good afternoon!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
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From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Thursday, May 16, 2024 4:08 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

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Good Afternoon Jared,
We would like to propose a meeting time for Tuesday 5/21 @ 1:30.

Thank you,
Scott

Scott Rodgers • Environmental Specialist – Adv.
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Thursday, April 25, 2024 2:11 PM
To: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>
Subject: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

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All,

I would like to propose a meeting between the NMOCD (Mike Bratcher, Robert Hamlet, and Scott Rodgers), COP (Ike Tavaréz) and TRC (Jared Stoffel) to discuss the Federal 29 Z 002H release site, NMOCD Reference number NAPP2221331648. The items of discussion center around the closed drilling pit adjacent to the release point. A brief summary of the Release is below:

- The release is a non-reportable volume (1.5 barrels of crude oil).
- There was no produced water released, only crude oil.
- The release mechanism was a packing blowout which resulted in an overspray of a large area, approximately 10,800 square feet.
- COP submitted a C-141 to the NMOCD. The site was assessed, and work plan submitted to the NMOCD. Upon further review, the release was noted to be of non-reportable volume, COP attempted to retract C-141 from the system. The NMOCD declined and discussed several options to COP (variances) which would provide a path forward for remediation but prevent additional excavation driven only by chlorides present from the closed reserve pit. The meeting occurred on August 2, 2023 between the OCD (Mike Bratcher and Robert Hamlet), COP (Ike Tavaréz), and TRC (Jared Stoffel). The OCD recommended the submission of a workplan with the proposed variance through the NMOCD portal.
- TPH and BTEX constituents were below the most stringent regulatory guidelines in each submitted soil sample.
- Chloride concentrations exceeded only in areas S-3 and S-6 (the pit area). S-3 appeared anomalous, so trench TT-1 was installed in the same location, and the chloride exceedances were not duplicated. S-6 appears in the area of the pit which is not well vegetated. Field screen results indicate elevated chloride concentrations throughout the pit footprint. S-6 was delineated vertically to below 600 mg/kg at 4 feet bgs.

Site characteristics:

- Depth to groundwater is unknown, but the nearest well (approximately 0.70 miles

southeast) indicates groundwater at approximately 83 feet bgs.

- 'High Karst' area
- Within 300 feet of a 'riverine' identified in the national wetlands inventory.

Discussion points:

- While we understand that the closure criteria modifiers of high karst and near a riverine dictate the most stringent regulatory guidelines, the chlorides are not related to the Release as evident by material released (crude oil only), release mechanism (overspray of the surface only), and release volume (1.5 barrels over an area of 10,800 square feet). There are no documented exceedances at the surface or any other interval of TPH or Benzene related to crude oil. Elevated chlorides appear isolated to the approximate drilling pit footprint.
- COP met with OCD in August of 2023, at which time the OCD indicated a variance may be utilized to avoid digging up the entirety of the pit. COP proposed to excavate 1,050 cubic yards (the entire spill footprint in the area represented by sample point S-6 to 4 feet bgs) and omit confirmation sampling which likely will drive excavation laterally beyond the spill footprint to the boundaries of the pit area. The proposed 4 feet greatly exceeded the depth of hydrocarbon impact in this area and will allow for better re-vegetation of this section of the former pit area. The NMOCD approved the excavation but denied the sampling variance which would omit all confirmation samples.
- A follow up email to the NMOCD requesting a smaller variance in which the requisite confirmation samples be collected and analyzed for TPH and BTEX only was verbally denied by the NMOCD.
- COP would like to propose to excavate to 4 feet bgs within the spill footprint, which would remove the chloride concentrations documented in the investigation phase of the project and upon backfill with imported clean fill will provide a good root zone for reclamation. Sidewall samples would be collected and analyzed for TPH and BTEX. Once the analytical results from the sidewalls indicate all hydrocarbon affected soil has been removed, COP proposes installation of a polyvinyl or geosynthetic liner at four feet bgs through the extent of the excavation to prevent rainwater from mobilizing any additional chloride concentrations at depth related to the pit from mobilizing. Floor confirmation samples at the base of the excavation would not be collected due to the installation of the liner.

Please let us know when would be agreeable for a meeting and I would be happy to send out a Teams meeting (unless you have a different preferred format for the meeting). Thank you very much.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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From: Stoffel, Jared**Sent:** Monday, April 8, 2024 11:56 AM**To:** scott.rodgers@emnrd.nm.gov**Cc:** mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>**Subject:** FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

Scott,

Thank you for discussing the alternative sampling plan with me last week. I wanted to follow up that conversation with a request for a meeting with you, Mike, and Robert to discuss how to move forward with the Site. Our last meeting was with Mike and Robert, and the recommended variance request route did not get approved. We wanted to see what our other options are, as the release footprint overlapped with the adjacent pit. Please let me know what timing would be convenient for you all and I'd like to submit a Teams meeting for us all to discuss, if possible. I appreciate your help on this – thanks!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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From: Stoffel, Jared**Sent:** Thursday, March 7, 2024 3:40 PM**To:** scott.rodgers@emnrd.nm.gov**Cc:** Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>**Subject:** Follow Up Request for Alternative Sampling Plan - nAPP2221331648

Scott,

Thank you for discussing the Site with me again yesterday. I've attached the conditional approval response for project reference. In discussing the next step forward for the Site, we were curious if you would consider a different alternative sampling plan.

COP would like to follow up with a reduced variance request in which confirmation soil samples be collected on the 200 square foot basis outlined in NMAC 19.15.29. However, COP would like to propose that the soil samples be collected and analyzed for TPH and BTEX only for this hydrocarbon only overspray release. As no produced water was released, COP respectfully requests omission of chlorides as a constituent of concern as the elevated chlorides are associated with the adjacent pit and not with the Release. COP will excavate the upper four feet in the footprint as proposed in the workplan to remove all previously documented elevated chloride concentrations above the most stringent NMOCD standard. The confirmation samples analyzed for TPH and BTEX would document the removal of the hydrocarbons associated with the Release to confirm the protection of freshwater, public health, and the environment from the hydrocarbons released.

Please let us know if this route would be acceptable to the NMOCD. I am available at your convenience to discuss if this would be helpful. Thank you very much for your consideration.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
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From: OCDOnline@state.nm.us
To: [Stoffel, Jared](#)
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 298904
Date: Tuesday, March 5, 2024 11:56:04 AM

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ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

To whom it may concern (c/o Jared Stoffel for COG OPERATING LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2221331648, with the following conditions:

- **This remediation plan is conditionally approved. The variance request to forgo confirmation sampling is denied. An alternative sampling plan would require a proposed sampling grid map and sampling statistics showing equal or better protection of fresh water, public health and the environment. The demonstration should show that depth to groundwater and karst are not an issue. Also, that it's not within a 100-year floodplain.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Scott Rodgers
Environmental Specialist - A
505-469-1830
scott.rodgers@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

From: [Stoffel, Jared](#)
To: [Hamlet, Robert, EMNRD](#)
Cc: [Bratcher, Michael, EMNRD](#); [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H
Date: Wednesday, January 3, 2024 8:34:00 AM
Attachments: [image001.png](#)

Thank you for the clarification, Robert – we won't resubmit in the future. Have a good morning!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, January 3, 2024 8:20 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

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Jared,

The report only needs to be uploaded once. Once the remediation plan is submitted, the report goes into a cue and is assigned and reviewed in the order it is received. I can't give you an exact date on when it will be reviewed. The OCD is reviewing reports as quickly as possible. Once the report is reviewed, you will receive a notification.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, January 2, 2024 1:35 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: FW: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert –

I wanted to follow up with you on the workplan for the Federal 29 Z 002H (NAPP2221331648) and let you know that we re-submitted today through the portal (attached is the PO and receipt). Please let me know if this was the correct way to address a workplan that has been in the portal for longer than 60 days, and/or if you have any questions or concerns. Thank you very much!

Jared Stoffel, P.G.
Project Manager



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From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, November 28, 2023 4:36 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert -

I wanted to follow up with you on the workplan submitted to the NMOCD portal on 9/20/23 and re-submit to you since it has been more than 60 days since submittal. Please let me know if you have any questions or concerns on this one, and if I need to do anything further on the portal side after 60 days. Thanks!

Jared Stoffel, P.G.
Project Manager

505 E Huntland Dr STE 250 Austin, TX 78752



F: 512 329 8750 | C: 432 238 3003

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From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, July 26, 2023 8:25 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

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Jared,

You might set up a Teams Call for Wednesday August 2nd at 10:00 a.m. Mountain Time if that works for everyone. Invite Mike Bratcher and myself to the meeting and we can have a quick discussion on the site. Thanks

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, July 25, 2023 3:42 PM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert, Jocelyn, and Mike,

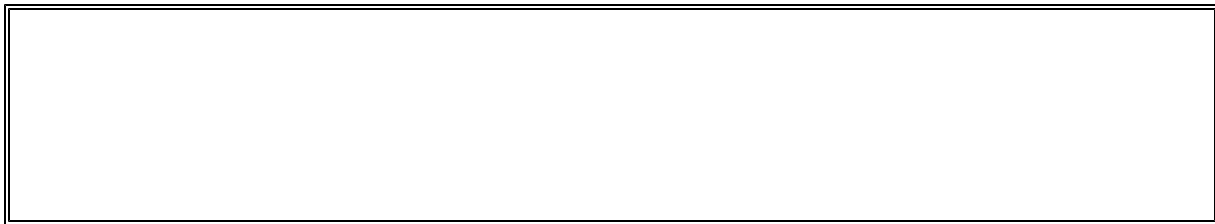
During the set-up to begin the remedial action plan at the site, TRC performed historical review and site reconnaissance. These activities uncovered the elevated chloride concentrations to be addressed in the approved remediation workplan are related to (and seemingly limited to) the former reserve pit at the Site. Additionally, the review indicated that the release was a non-reportable volume of crude oil (1.5 bbls of crude oil – no produced water reported). We would like to discuss the next steps for this remediation, as the plan as proposed will likely result in the excavation of the entirety of a reserve pit rather than as a remedial action to remove soil affected from the release of crude oil. Would you have time to discuss this issue with us? Thank you very much!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
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From: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Sent: Thursday, July 13, 2023 2:27 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H



Jared,

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: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Thursday, July 13, 2023 9:50 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

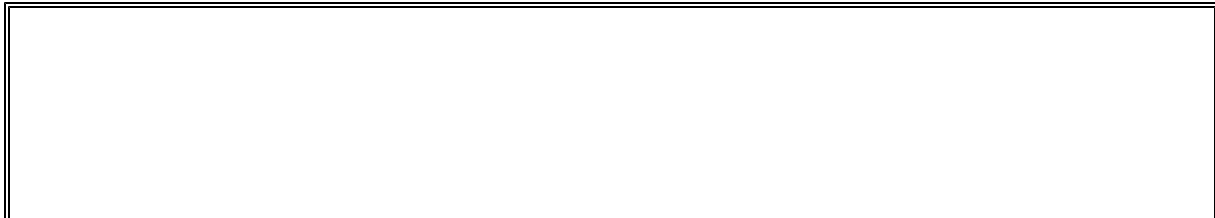
Robert – we will begin remediation at the Federal 29 Z 002H (NAPP2221331648) on Monday, July 17th, 2023. Final confirmation soil samples will be collected as the excavation progresses. The expected duration of the project is 1 week. Please let me know if you have any questions or concerns. Thank you very much!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
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From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 21, 2023 2:26 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H



RE: Incident #NAPP2221331648

Jared,

Your request for an extension to **September 21st, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced

Environmental Bureau

EMNRD - Oil Conservation Division

506 W. Texas Ave. | Artesia, NM 88210

575.909.0302 | robert.hamlet@state.nm.us

<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>

Sent: Wednesday, June 21, 2023 10:56 AM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>

Subject: [EXTERNAL] Extension Request - Federal 29 Z 002H

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

Mr. Hamlet,

TRC, on behalf of COP, would like to request a 90-day extension for the Federal 29 Z 002H remediation project (NAPP2221331648). We are scheduled to start the remedial excavation in early to mid-July, and the 90 days would allow us time following remediation to complete the report prior to the deadline. Please let us know if this is acceptable to you – thank you very much!

Jared Stoffel, P.G.

Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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Appendix E – Field Boring Logs

PAGE 1 OF 1

LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-NW	
PROJECT NUMBER: 544675		LOCATION: 32.54324, -104.31055	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		SURFACE ELEV.:	
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		80%	15		Surface	Silty, Sand, Poor grade gravel Loam	Om
		85%	15		2.5'	Silty, Sandy, Poor grade gravel Caliche	Om
		85%	15		5.0'	Sandy, Clay, Poor Grade Gravel	Recl/Bin, Cl
		95%	15		7.5'		
		100%	10		10.0'	Clay, Sand, Coarse Clay,	ML Recl
		100%	10		15'	Clay, Sand, Poor grade gravel	CL Recl
		90%	10		1.0'		
					1.5'		
					20.0'	-30ft Recl Sand - fine-medium	Recl - ML

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/14/24

REVISED 06/2011

CHECKED

DATE

PAGE 1 OF 1

LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-NE	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54323, -104.31024	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		49/10			Surface	Silty Loam w/ Poorly Graded Gravel	Brown-Gray GL/BP
		50/50			2.5'	Sandy fine grain w/ Silt	Red.
		45/10/45			5.0'	Poorly graded gravel w/ Sand / Silty	tan bc
		25/25			10.0'	Poorly grade gravel, Clay, Coarse	Mh/Bm
		100			15'	Red Sand	M2
		210/10/50			20.0'	30 ft Poor Shale gravel-clay-Red sand	CL

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/14/24

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LOG OF SOIL BORING

PAGE 1 OF 1

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-SE	
PROJECT NUMBER: 544675		LOCATION: 32.54308, -104.31029	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		SURFACE ELEV.:	
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		40/60			Surface	Gravel - Poor Grade Colored Sandy Silt Loam	GW/BP Van
		40/60			2.5 3.0	Sandy - Poor grade Gravel Silt	GW/BP Van
					5.0	Sandy - Poor Grade Gravel	Reel
		40/55			10.0	Poorly Graded Gravel - Sandy Silt	Van - fl
		20/30			15	Red Clay - Sand - Gravelly	C1 - Reel
		100			20.0	30 ft Red Clay - Sand	m2

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/24/24

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PAGE 1 OF 1



LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-SW	
PROJECT NUMBER: 544675		LOCATION: 32.54310, -104.31053	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		SURFACE ELEV.:	
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		80/10/0			Surface	Loamy - Poor Grade Gravel w/ Sand	60/10P Pink Gray
		90/10			2.5		
		90/10			5.0	Sandy w/ Poor grade Gravel	Red 5m/sc
					7.5	Poorsy Graded Gravel w/ Sand	
		90/10			10.0	Clay - Sand - Gravelly	Red CL
		90/10			15	Gravelly Clay - Poor Grade	Red
					1.0		
					1.5		
		100			20.0	Sandy - fine grade 130ft Clay	Red ml

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10-14-24

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PAGE 1 OF 1

LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation	SOIL BORING ID: SB-S-Lateral	
PROJECT NUMBER: 544675	LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons	32.54299, -104.31033	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM	N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough	DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		30 70			Surface	Gravelly Loam Poorly Graded Gravel w/ Silty Loam	Gm/GC tan
					2.5		
					3ft	Sandy - Poorly graded gravel Silty Loam	Gm/Gm tan - Red
					5.0	"	"
					7.5		
		100	100		10.0	Gravelly Clay	ML
					15	"	
					1.0		
					1.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

Rebecca Pons 10/14/24
 SIGNED DATE

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DATE

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PAGE 1 OF 1

LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-E-Lateral	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54311, -104.31007	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		95/5			Surface	Silty Sandy	tan - very fine
					3.0		
					5.0	Sandy - Poorly graded gravel	GC
					7.5		
		95/5			10.0	Clay, Sand, Poorly Graded Sand	Real - CL
		95/5			15	Sand - Silt	Real - ML
					17.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons 10/14/24
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PAGE 1 OF 1

LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-N-Lateral	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54352, -104.31027	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		95%			Surface	Silty Sand - Rough Gravel Gravel	Rem 6m
		95%			2.5		
		95%			5.0	Silty Sand - Rough Gravel	Rem 8m
					7.5		
					10.0	Sandy Silt - Fine grain	ML Rem Real
		20%			15	Gravelly Clay	Rem
					1.0		
					1.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/11/24

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PAGE 1 OF 1



LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation	SOIL BORING ID: SB-Background 1	
PROJECT NUMBER: 544675	LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons	32.54324, -104.31069	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM	N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough	DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		95%			Surface	Silty Sand - Poor grade gravel	tan
		95%			2.5'	Silty Sand - Poor grade gravel	BW/BP
					3.0'	fine grain	
					5.0'	fine grain sand - Silt	BW-BP
						Caliche Poor grade gravel	tan.
					7.5'		
		95%			10.0'	Silt - Sand Poor grade gravel	
					15'	Red Silty Sand	
		100					
					20'	11	
		100					
		95%			2.5'	Poor Grade Gravel clay	Red
						Silty Sand	
					30'	11	Red

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

Rebecca Pons
SIGNED

10/14/24
DATE

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PAGE 1 OF 1

LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SBW-Lateral	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54324, -104.31069	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		29 3/5			Surface	GW poorly graded gravel w/ silt sandy	Yan
		100			3' 25"	Silt Sand	
		56 4/5			5.0	GW poorly graded gravel w/ fine sand	Yan / Red
		95 1/2			10.0	clayey gravel w/ sand	Red / brown
		95 1/2			15	Sandy silt w/ clay	Red
					1.0		
					1.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/14/24

CHECKED

DATE

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PAGE 1 OF 1

LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-Background 2	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54343, -104.30981	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-9-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-9-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		85/10/5			Surface	6m-6L Poorly Graded Gravel with Silt/Clay & Sand	Reddish-Tan
		75/5/10			1-30"	Silty Sand Poorly Graded Gravel Caliche	
					2.5		
					5.0	LL	
					7.5		
		85/10/5			10.0	Silt-Sand Poorly Graded Gravel	LL
		90/5/5			15	Poorly Graded Gravel w/ Silt-Sand	
		35/5/60			20	Silt, Clay w/ Poorly Graded Gravel	Red-Brown
		40/5/5			25	Poorly Graded Gravel with Sand Silt, Clay	
					30.0	Silty Sand	LL

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/14/24

CHECKED

DATE

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PAGE 1 OF 2

LOG OF SOIL BORING

PROJECT NAME: <u>Feed E. Detention</u>		SOIL BORING ID: <u>SB-Center</u>	
PROJECT NUMBER: <u>544675</u>		LOCATION: <u>32.54319, -104.31031</u>	SHEET <u>1</u> OF <u>2</u>
LOGGED BY: <u>Rebecca Pons</u>		SURFACE ELEV.: <u></u>	
PROJECT LOCATION: <u>Edley County, NM</u>		N: <u></u> E: <u></u>	DATE STARTED: <u>10-9-24</u>
DRILLED BY: <u>Lane</u>	DRILLER NAME: <u>Scarbrough</u>		DATE COMPLETED: <u>10-9-24</u>

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		75			0	well poorly graded gravel and sand	fine silty
		90			2.5	well poorly graded gravel and sand	
		125			10	silt or clay w/ gravel	Red clay
		10/90			20.0	ML sandy silt w/ heavily clay	Reddish Brown

DRILLING METHOD <u>Split-Spoon</u>
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE: <u>NA</u>			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED RPons DATE 10-14-24

CHECKED

DATE

REVISED 06/2011

PAGE 2 OF 2

LOG OF SOIL BORING

PROJECT NAME: <u>Feed & Distribution</u>		SOIL BORING ID:	
PROJECT NUMBER: <u>544675</u>		LOCATION:	SHEET <u>1</u> OF <u>2</u>
LOGGED BY: <u>Dubois Pons</u>		SURFACE ELEV.:	
PROJECT LOCATION: <u>Emery County</u>		N: E:	DATE STARTED: <u>10-9-24</u>
DRILLED BY: <u>Lane</u>	DRILLER NAME: <u>W/ SLABOROUGH</u>		DATE COMPLETED: <u>10-9-24</u>

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		90			25	Gravelly Clay - with Fines	Red-Brown
		100			30	Clay	
					7.5		
					10.0		
					12.5		
					15.0		
					17.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED P. Pons 10-14-24
 DATE
 REVISED 06/2011

CHECKED

DATE

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

QUESTIONS

Action 396431

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 396431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2221331648
Incident Name	NAPP2221331648 FEDERAL 29 Z 002H @ 0
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2203544127] Federal Z RB

Location of Release Source	
Please answer all the questions in this group.	
Site Name	FEDERAL 29 Z 002H
Date Release Discovered	07/16/2022
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure Other (Specify) Crude Oil Released: 2 BBL Recovered: 0 BBL Lost: 2 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 396431

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
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	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	packing blow out - release on and off pad

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

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

I hereby agree and sign off to the above statement	Name: Jared Stoffel Title: Scientist Email: jstoffel@trccompanies.com Date: 10/28/2024
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QUESTIONS, Page 3

Action 396431

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 396431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS**Site Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 100 and 200 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

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

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

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

Chloride (EPA 300.0 or SM4500 Cl B)	10300
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	118
GRO+DRO (EPA SW-846 Method 8015M)	118
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

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

On what estimated date will the remediation commence	12/01/2024
On what date will (or did) the final sampling or liner inspection occur	12/04/2024
On what date will (or was) the remediation complete(d)	12/20/2024
What is the estimated surface area (in square feet) that will be reclaimed	37500
What is the estimated volume (in cubic yards) that will be reclaimed	5500
What is the estimated surface area (in square feet) that will be remediated	37500
What is the estimated volume (in cubic yards) that will be remediated	5500

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

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

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QUESTIONS, Page 4

Action 396431

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 396431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
OR which OCD approved well (API) will be used for off-site disposal	<i>Not answered.</i>
OR is the off-site disposal site, to be used, out-of-state	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Jared Stoffel Title: Scientist Email: jstoffel@trccompanies.com Date: 10/28/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 396431

QUESTIONS (continued)

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	Action Number: 396431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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Action 396431

QUESTIONS (continued)

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	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 396431

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 396431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	The Remediation Plan is approved with the following conditions. 1.OCD will require that the former pit area to be excavated to the maximum extent practicable, installation of a barrier may then be considered. 2. Confirmation sidewall and floor samples will be required. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Confirmation samples should be collected every 200 ft2.	1/27/2025