

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

State of New Mexico  
Oil Conservation Division

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: _____
<b><u>OCD Only</u></b> Received by: _____ Date: _____

Received by OCD: 3/8/2024 12:00:21 AM Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Average Depth (in.)	On/Off Pad (dropdown)	Soil Spilled-Fluid Saturation (%)	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	45.0	21.0	0.5	Off-Pad v	15.02%	7.01	1.05
Rectangle B	24.0	18.0	0.5	Off-Pad v	15.02%	3.20	0.48
Rectangle C	21.0	15.0	0.5	Off-Pad v	15.02%	2.34	0.35
Rectangle D				v		0.00	
Rectangle E				v		0.00	
Rectangle F				v		0.00	
Rectangle G				v		0.00	
Rectangle H				v		0.00	
Rectangle I				v		0.00	
Rectangle J				v		0.00	
Released to Imaging: 3/8/2024 11:40:21 AM Total Subsurface Volume Released:							1.8849



March 1, 2024

District Supervisor  
Oil Conservation Division, District 1  
1625 North French Drive  
Hobbs, New Mexico 88240

Tami Knight, CHMM  
Environmental Specialist SRD-ECO  
New Mexico State Land Office  
1300 W. Broadway Avenue, Suite A  
Bloomfield, NM 87413  
(505) 670.1639  
[tknight@slo.state.nm.us](mailto:tknight@slo.state.nm.us)

**Re: Closure Request  
Oriole State Com #001 Flowline Release  
ConocoPhillips  
Lea County, New Mexico  
DOR: 9/06/23  
INCIDENT ID: NAPP2326829702  
Landowner: Private Agricultural Lease (Pearce Trust) / State Trust Land**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to evaluate and assess a release that occurred from a flowline associated with the Oriole State Com #001 (API# 30-025-41612). The release footprint is located on State Trust Land in Public Land Survey System (PLSS) Unit Letter M, Section 26, Township 18 South, Range 34 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.713653° -103.538213°, as shown on Figures 1 and 2.

## BACKGROUND

According to information provided, the release was caused by internal corrosion in a fitting resulting in the release of 1.88 barrels (bbls) of produced water in an off-pad pasture area. The spill calculator provided with the C-141 indicates a release extent of approximately 1,692 square feet in area. The release extent was identified based on information provided by ConocoPhillips representatives, a review of photographs from the release area, and a Site visit conducted by Tetra Tech personnel as indicated on Figure 3. This release footprint is located on State Trust Land. The New Mexico Oil Conservation Division (NMOCD) received the C-141 report form for the release on September 25, 2023, and subsequently assigned the release Incident ID NAPP2326829702. A copy of the C-141 is included in Appendix A.

COP plans to remediate this release in accordance with NMOCD regulations within the allotted time frame provided by the NMOCD. This Work Plan is hereby presented to the NMSLO based on correspondence with the Environmental Compliance Office for the remediation and reclamation of the release site.

Tetra Tech

901 West Wall St., Suite 100, Midland, TX 79701

Tel 432.682.4559 Fax 432.682.3946 [www.tetrattech.com](http://www.tetrattech.com)

Closure Request  
March 1, 2024

ConocoPhillips

## LAND OWNERSHIP

According to the NMOCD Oil and Gas Map, the site is located on State Trust Land managed by the NMSLO. A review of the New Mexico State Land Office Land Status Map was completed, and the release site is located within active oil and gas lease L036740002, under EOG Resources Inc. Based on guidance provided by the NMSLO, as the release footprint is located on an active oil and gas lease, and the footprint is wholly located within the boundaries of the active oil and gas lease, no Remediation Right of Entry (ROE) is required at the Site.

Please note ConocoPhillips has a Surface Use Agreement (SUA) in place between the Pearce Trust that has been effective as of February 1, 2014. The Oriole State Com #001 Flowline Release footprint is within the boundaries of the agreement.

## CULTURAL PROPERTIES PROTECTION

Tetra Tech, on behalf of ConocoPhillips, contracted SWCA Environmental Consultants (SWCA) to conduct an Archeological Resources Management Section (ARMS) review in the release area to comply with 19.2.24 NMAC. On September 27, 2023, SWCA completed a literature and file search using the State of New Mexico's New Mexico Cultural Resources Information System online database which included a review of known historic resources, including the built environment, archaeological sites, and State/National Register listed properties.

In the review, SWCA found the area surrounding the site footprint (radius of 500 meters) has been subject to four (4) cultural resource surveys, three (3) of which are qualifying. One previously recorded site with two LA numbers is located within the project area. The project area is entirely located on NMSLO-managed lands within LA 178082 and LA 191722. LA 178082 was last recorded on 7/28/2023 under NMCRIS Activity No. 153645. LA 191722 was last recorded on 7/26/2018 under NMCRIS Activity No. 141048. Both LA numbers are for the Hobbs Air Force Base Auxiliary Field #4, a World War II airstrip composed of concrete runways. Because the spill is within these cultural resource boundaries, SWCA consulted with the NMSLO on 9/21/2023 and confirmed that the completion of an ARMS letter will satisfy the requirements for release remediation.

All remediation work will remain outside of the concrete runways. If cultural materials are identified during ground disturbing activities, work will be stopped and the NMSLO will be contacted. A copy of the ARMS letter is included in Appendix B.

## SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, stream bodies, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

A groundwater well search was performed through the New Mexico Office of the State Engineer (NMOSE) system. There are three active water wells within a ½-mile (800-meter) radius of the Site. According to data from one well located approximately 0.20 miles (319 meters) of the Site, the depth to groundwater is 117 feet below ground surface (bgs). The site characterization data is included as Appendix C.

## REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

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Based on the site characterization and in accordance with Table I of 19.15.29.12 NMAC, the proposed RRALs for the Site are as follows:

Constituent	Site RRALs
Chloride	20,000 mg/kg
TPH (GRO+DRO+ORO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

Additionally, in accordance with the NMOCD guidance Procedures for Implementation of the Spill Rule (19.15.29 NMAC) (September 6, 2019), the following reclamation requirements for surface soils (0-4 ft bgs) outside of active oil and gas operations are as follows:

Constituent	Reclamation Requirements
Chloride	600 mg/kg
TPH (GRO+DRO+ORO)	100 mg/kg

### SITE ASSESSMENT ACTIVITIES

Tetra Tech personnel were onsite to assess the release area on September 29, 2023. Assessment activities included installing seven (7) hand auger borings (AH-1 through AH-7) in the release area to a total depth ranging from 1-1.75 feet below surrounding grade (bgs). Auger refusal was met at roughly 1.75 feet bgs.

Based on the dense subsurface lithology (caprock) beneath the footprint, Tetra Tech remobilized to the site on October 16, 2023, and installed three (3) trenches (T-1 through T-3) using a backhoe to evaluate the vertical extents of the release footprint. Trench T-1 was installed to 5' ft bgs and trenches T-2 and T-3 were installed to 4' ft bgs. Trench and boring locations are shown in Figure 3. Photographic documentation of the Site is included in Appendix D.

Analytical results associated with AH-1 through AH-3 and trench locations T-1 through T-3 exceeded the chloride reclamation requirement of 600 mg/kg in surface soils to 4 feet bgs. All other analytical results from the sampling events were below Site RRALs and reclamation requirements. The release extent is fully delineated, both vertically and horizontally as a result of the soil assessment activities. Results from the September and October 2023 soil sampling events are summarized in Table 1. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix E.

### REMEDIATION WORK PLAN (NMSLO)

It was the intent of ConocoPhillips to remediate this unplanned release within 90 days of its discovery without submitting a remediation plan to the NMOCD. An extension was submitted to the NMOCD and approved, to this end, on December 11, 2023. However, as the release footprint is located on State Trust Lands, Tetra Tech provided a work plan and accompanying notice of the planned remedial activities to the NMSLO Environmental Compliance Office (ECO).

Per request, one .pdf file Work Plan (including the written narrative and associated attachments regarding planned remedial activities) was prepared by Tetra Tech on behalf of ConocoPhillips and subsequently submitted to NMSLO in an email dated November 29, 2023. The Work Plan described the results of the release assessment activities performed at the site, described the remedial action, and provided details on site reclamation. The Work Plan was approved via email by Ms. Tami Knight, Environmental Specialist, ECO dated December 18, 2023, with the following language:

*Documentation of proposed remediation actions for the subject release incident was received from your office on November 29, 2023. The NMSLO Environmental Compliance Office (ECO) has reviewed the plan*

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and based on the information provided in the document received from your office, ECO has approved the remediation plan. Please submit the remediation closure report to [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us).

A copy of the NMOCD and NMSLO correspondence is included in Appendix B.

## REMEDATION ACTIVITIES AND CONFIRMATION SAMPLING

On February 13 to 23 2024, Tetra Tech personnel were onsite to remediate the release as proposed in the NMSLO approved Work Plan, including excavation, disposal, and backfill. During release and assessment, a semi-permanent lay flat was located in the footprint, as well as the original 4" poly line. On day one (2/13) two additional lay flat lines and another 4" polyline was discovered to cross the proposed excavation area. Work had to be postponed for two days (2/15 and 2/16) as these lay flats were moved by the respective parties. The third (original) lay flat was not moved from the excavation are as the operator was unwilling to relocate the line.

Impacted soils were excavated within the release footprint to a maximum of 4 feet bgs. The area of boring location AH-3 was excavated to a depth of 3 feet bgs, based on assessment data. The area of boring locations AH-1, AH-2, and trench location T-1 was excavated to 4 feet bgs. On the eastern flank of the layflat, adjacent to the lease road, the depth of impacted soils was confirmed with field soil screening data and then excavated to 1-foot bgs. As described below, a floor confirmation sample (FS-6) was collected in this area to verify the removal of impacts. Areas in close proximity to pressurized lines were hand-dug to the maximum extent practicable. Heavy equipment was not operated within 4 feet of any pressurized lines due to safety concerns. Due to this, there were multiple non-aggressive excavation areas inside of the release area footprint as indicated in Figure 4. Photographs from the excavated areas prior to backfill are provided in Appendix D.

Prior to confirmation sampling, in accordance with Subsection D of 19.15.29.12 NMAC, the NMOCD was notified via the OCD portal on February 9, 2024. Documentation of associated regulatory correspondence is included in Appendix B. Confirmation floor and sidewall samples were collected for laboratory analysis to verify that the impacted materials were properly removed. Each confirmation sample laboratory analytical result was directly compared to the proposed RRALs and/or reclamation requirements to demonstrate compliance.

All of the excavated material was transported offsite for proper disposal. Approximately three hundred (300) cubic yards of material were transported to the Lea Land Landfill Facility in Hobbs, New Mexico. Copies of the waste manifests are included in Appendix F.

Per the conditions of the NMSLO approved Work Plan, confirmation samples were collected such that each discrete sample (sidewall and floor) were representative of no more than 200 square feet of excavated area. A total of six (6) floor sample locations and twelve (12) sidewall sample locations were used during the remedial activities. Confirmation sidewall sample locations were labeled with "SW"-#, confirmation floor sample locations were labeled with "FS"-#. Multiple initial confirmation sampling analytical results exceeded the Site RRALs for chloride. The areas of excavation associated with the exceedances were expanded horizontally or deepened. Once impacted soil was presumed to have been removed from the remediated areas in the vicinity of these samples, iterative confirmation samples were collected to encompass the original sample locations that triggered removal (nomenclature defined in Table 2) post-additional excavation. All final confirmation sample results were below the respective RRALs for chloride, BTEX, and TPH. The results of the February 2024 confirmation sampling events are summarized in Table 2. Laboratory analytical data is included in Appendix E. Excavated areas, depths and confirmation sample locations are shown in Figure 4.

## SITE RECLAMATION AND MONITORING PLAN

In summary, in accordance with 19.15.29.13 NMAC, all areas disturbed by the remediation have been reclaimed. Reclaimed areas are indicated in Figure 4. Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within

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appropriate holding times by Cardinal. The soil samples were analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B.

In accordance with 19.15.29.12 NMAC, the reclaimed area contains non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by SM4500Cl-B in the upper 4' feet. One (1) representative 5-point composite sample was collected from the backfill material used for the reclamation of the project site. Soil backfill composite sampling results are summarized in Table 3. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. Photographs from the backfilled areas showing that the area is back, as nearly as practical, to the original condition are provided in Appendix D. The photographs include pictures of the top layer, which is one foot of suitable material to establish vegetation at the site.

Once acceptable confirmation sample results were received, the excavation was backfilled with clean material to pre-release grade. The backfilled areas in the pasture were seeded to aid in revegetation. Based on the soils of the site (predominantly KU - Kimbrough-Lea complex), the NMSLO Coarse Sites (CS) Seed Mixture was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture was spread by hand-held broadcaster and raked.

Site inspections will be performed annually to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The NMSLO seed mixture details in corresponding pounds per live seed per acre are included in Appendix G.

**CONCLUSION**

As noted, ConocoPhillips elected to remediate the release and submit a closure report within 90 days of discovery of the release, per Subsection B of 19.15.29.12 NMAC; however, Tetra Tech and ConocoPhillips experienced a delay in activities. The incident was extended with NMOCD, and the report was submitted within 180 days.

ConocoPhillips respectfully requests closure of the release based on the confirmation sampling results and remediation activities performed. The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the soil assessment results or the completed remedial and reclamation activities for the Site, please call me at (512) 338-2861.

Sincerely,  
**Tetra Tech, Inc.**



Lisbeth Chavira  
Project Geoscientist



Christian M. Llull, P.G.  
Program Manager

cc:  
Mr. Jacob Laird, GPBU – ConocoPhillips  
Ms. Tami Knight, NMSLO ECO

Closure Request  
March 1, 2024

ConocoPhillips

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Site Assessment
- Figure 4 – Remediation Extents and Confirmation Sampling

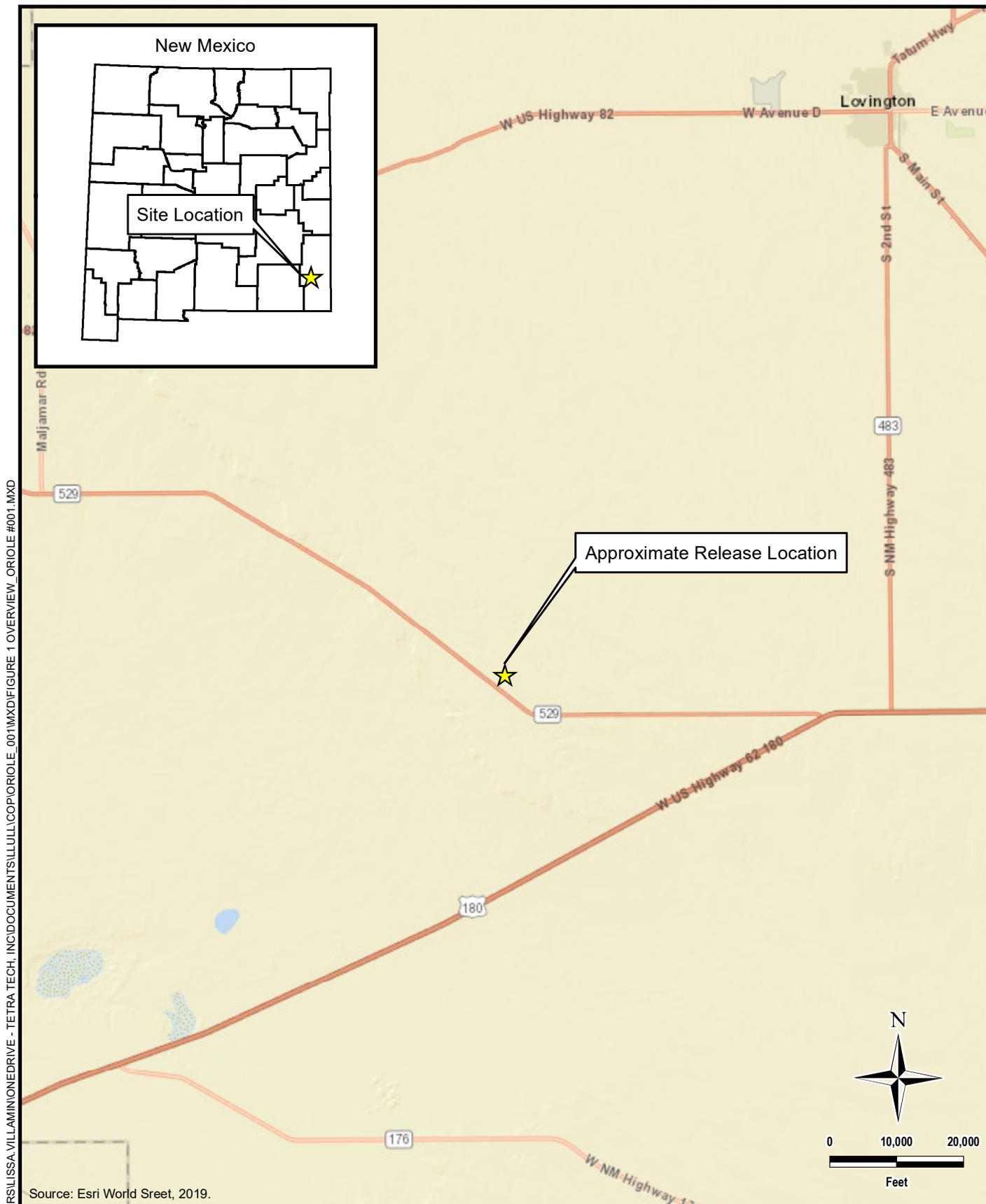
### Tables:

- Table 1 – Summary of Analytical Results – Soil Assessment 2023
- Table 2 – Summary of Analytical Results – Soil Remediation 2024
- Table 3 – Summary of Analytical Results – Soil Backfill

### Appendices:

- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence
- Appendix C – Site Characterization Data
- Appendix D – Photographic Documentation
- Appendix E – Analytical Data
- Appendix F – Waste Manifest
- Appendix G – Seed Mix Details

# **FIGURES**

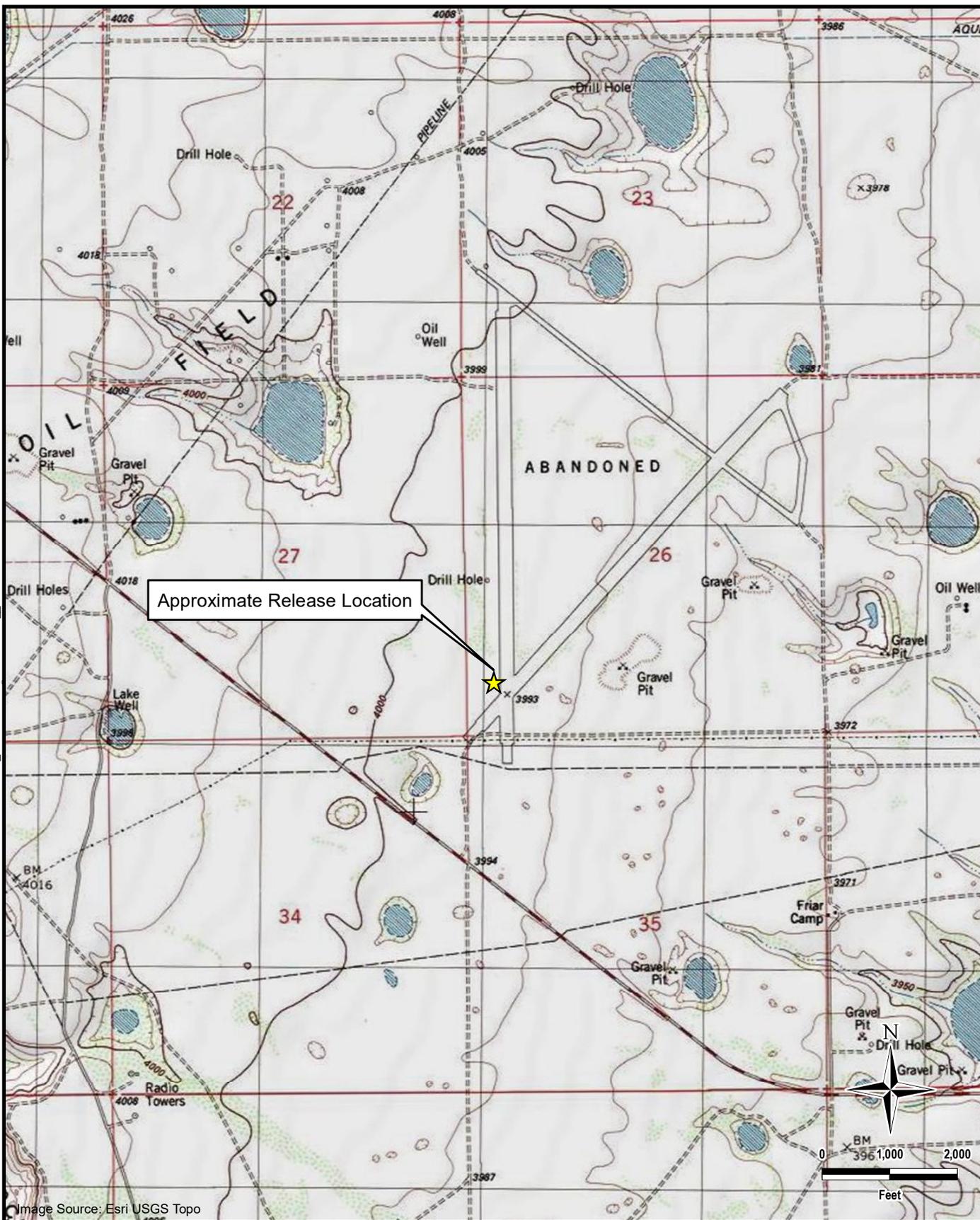


DOCUMENT PATH: C:\USERS\LISSA.VILLAMINIONEDRIVE - TETRA TECH\INCIDOCUMENTS\ILLULL\COPIOROLE\_001\MXD\FIGURE 1 OVERVIEW\_ORIOLE #001.MXD

Source: Esri World Sreet, 2019.

 <b>TETRA TECH</b> www.tetratech.com 901 West Wall Street, Suite 100 Midland, Texas 79701 Phone: (432) 682-4559 Fax: (432) 682-3946	<b>CONOCOPHILLIPS</b> NAPP2326829702 LEA COUNTY, NEW MEXICO (32.713647°, -103.538222°)	PROJECT NO.: 212C-MD-03236 DATE: OCTOBER 03, 2023 DESIGNED BY: LMV
	<b>ORIOLE STATE COM #001 FLOWLINE RELEASE OVERVIEW MAP</b>	
	Figure No. <b>1</b>	

DOCUMENT PATH: C:\USERS\LISSA.VILLAMINONEDRIVE - TETRA TECH\INCIDENTS\ILLULLI\COPYORIOLE\_001\MXD\FIGURE 2 TOPO\_ORIOLE #001.MXD



Approximate Release Location

**Tt TETRA TECH**  
 www.tetrattech.com  
 901 West Wall Street, Suite 100  
 Midland, Texas 79701  
 Phone: (432) 682-4559  
 Fax: (432) 682-3946

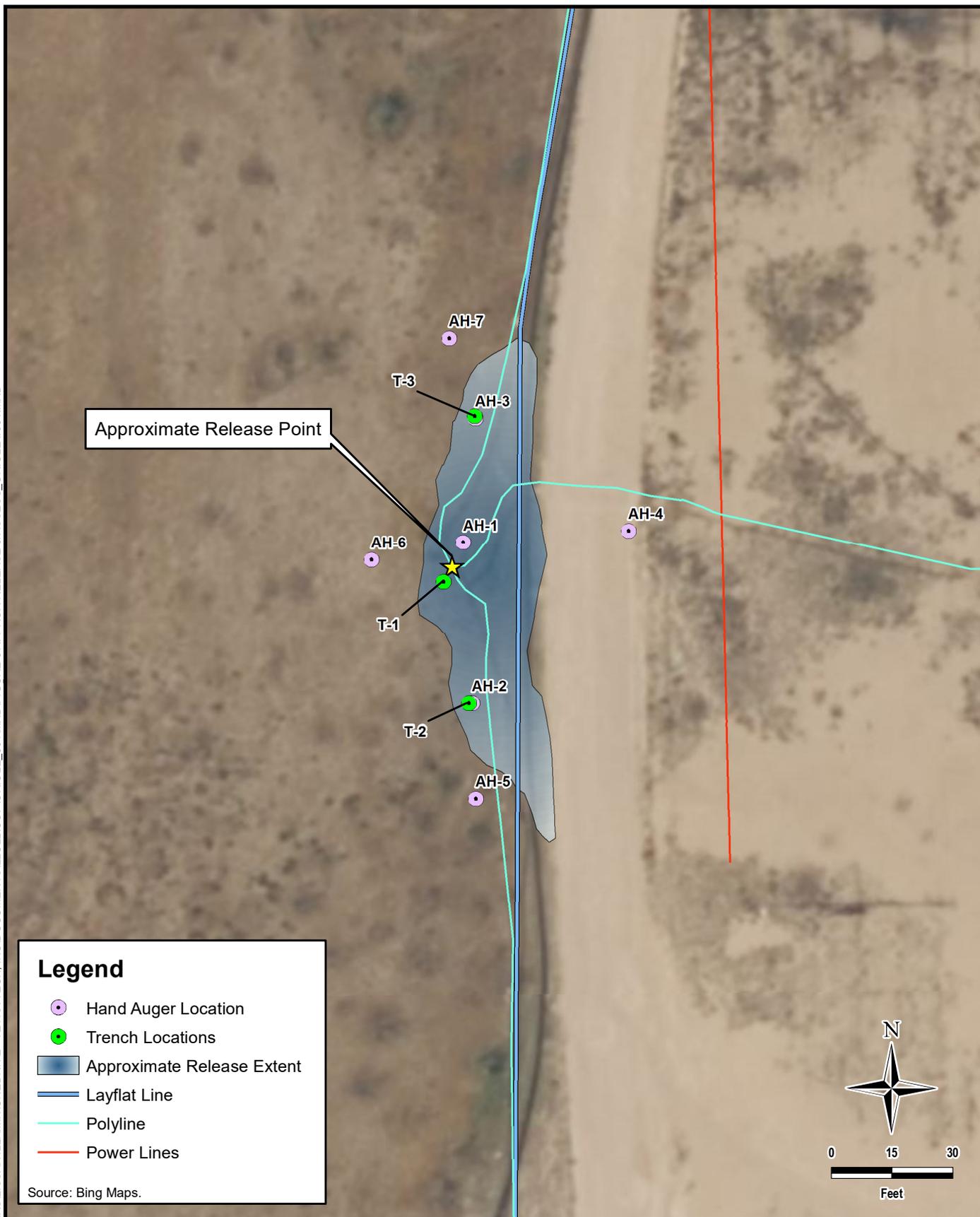
**CONOCOPHILLIPS**  
 NAPP2326829702  
 LEA COUNTY, NEW MEXICO  
 (32.713647°, -103.538222°)

**ORIOLE STATE COM #001 FLOWLINE RELEASE  
 TOPOGRAPHIC MAP**

PROJECT NO.: 212C-MD-03236  
 DATE: OCTOBER 03, 2023  
 DESIGNED BY: LMV

Figure No.  
**2**

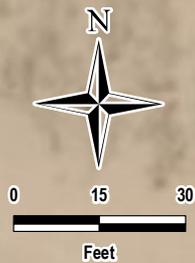
DOCUMENT PATH: C:\USERS\LISSA.VILLAMINIONEDRIVE - TETRA TECH\INCIDENTS\ILLULLI\COPIOROLE\_001\MXD\FIGURE 3 APPROX RELEASE & ASSESS\_ORIOLE #001.MXD



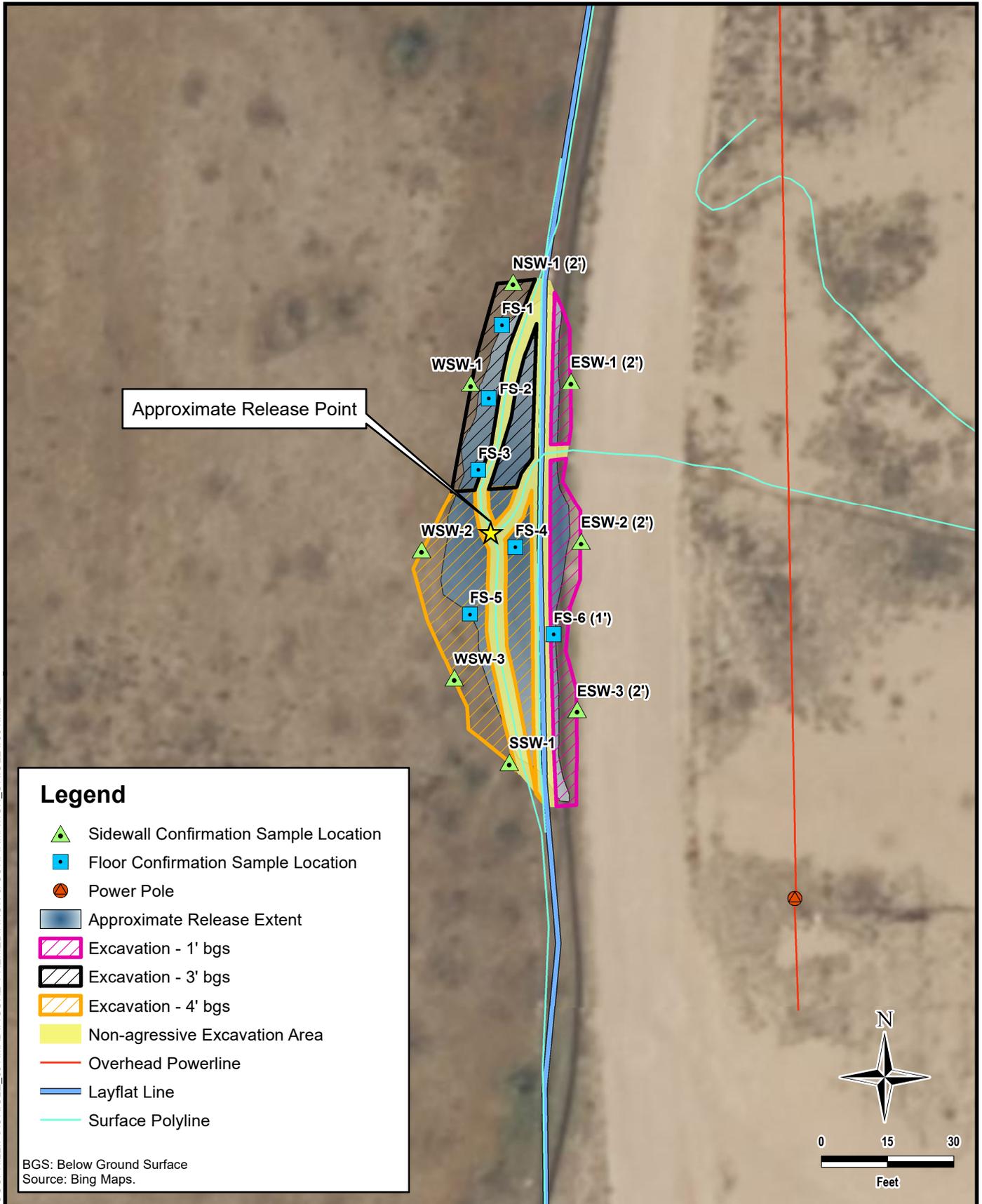
**Legend**

- Hand Auger Location
- Trench Locations
- Approximate Release Extent
- Layflat Line
- Polyline
- Power Lines

Source: Bing Maps.



 <b>TETRA TECH</b> www.tetrattech.com 901 West Wall Street, Suite 100 Midland, Texas 79701 Phone: (432) 682-4559 Fax: (432) 682-3946	<b>CONOCOPHILLIPS</b> NAPP2326829702 LEA COUNTY, NEW MEXICO (32.713647°, -103.538222°)	PROJECT NO.: 212C-MD-03236 DATE: OCTOBER 30, 2023 DESIGNED BY: LMV
	<b>ORIOLE STATE COM #001 FLOWLINE RELEASE                  APPROXIMATE RELEASE EXTENT AND SITE ASSESSMENT</b>	Figure No. <span style="font-size: 2em; font-weight: bold;">3</span>



Approximate Release Point

**Legend**

- Sidewall Confirmation Sample Location
- Floor Confirmation Sample Location
- Power Pole
- Approximate Release Extent
- Excavation - 1' bgs
- Excavation - 3' bgs
- Excavation - 4' bgs
- Non-aggressive Excavation Area
- Overhead Powerline
- Layflat Line
- Surface Polyline

BGS: Below Ground Surface  
Source: Bing Maps.

DOCUMENT PATH: Y:\CONOCOPHILLIPS\ORIOLE\_001\MXD\FIGURE 4 REMEDIATION & CONFIRMATION -ORIOLE #001.MXD

**Tt TETRA TECH**  
www.tetrattech.com  
901 West Wall Street, Suite 100  
Midland, Texas 79701  
Phone: (432) 682-4559  
Fax: (432) 682-3946

**CONOCOPHILLIPS**  
NAPP2326829702  
LEA COUNTY, NEW MEXICO  
(32.713647°, -103.538222°)

**ORIOLE STATE COM #001 FLOWLINE RELEASE  
REMEDATION EXTENTS AND CONFIRMATION SAMPLING**

PROJECT NO.:	212C-MD-03236
DATE:	FEBRUARY 29, 2024
DESIGNED BY:	LMV
Figure No.	<b>4</b>

# **TABLES**

TABLE 1  
 SUMMARY OF ANALYTICAL RESULTS  
 SOIL ASSESSMENT- nMLB1011352696  
 CONOCOPHILLIPS  
 ORIOLE STATE COM #001 FLOWLINE RELEASE  
 LEA COUNTY, NM

19.15.29.12 NMAC Closure Criteria for Soils Impacted by a Release (> 100 ft):				Chlorides <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>										
Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		< 20,000 mg/kg		< 10 mg/kg		Toluene		Ethylbenzene		Total Xylenes		< 50 mg/kg		GRO		DRO		EXT DRO		< 2,500 mg/kg	<1,000 mg/kg		
			Chlorides	PID	Chloride	Benzene	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	Total TPH (GRO+DRO+EXT DRO)	GRO+DRO
			ppm		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		C <sub>6</sub> -C <sub>10</sub>		> C <sub>10</sub> -C <sub>28</sub>		> C <sub>28</sub> -C <sub>36</sub>		mg/kg		mg/kg	
			ft. bgs		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
AH-1	9/29/2023	0-1			<b>6,400</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
		1.5-1.75			<b>8,400</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
T-1	10/16/2023	0-1			<b>7,440</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
		2-3			<b>3,920</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
		3-4			<b>2,280</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
		4-5			<b>384</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
AH-2/ T2	9/29/2023	0-1			<b>7,200</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
	10/16/2023	2-3			<b>2,400</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
		3-4			<b>992</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
AH-3/ T3	9/29/2023	0-1			<b>1,540</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		15.5		<10.0		15.5		15.5	
		1.5-1.75			<b>3,400</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		10.7		<10.0		10.7		10.7	
	10/16/2023	2-3			<b>1,020</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
		3-4			<b>544</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
AH-4	9/29/2023	0-1			<b>32.0</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
AH-5	9/29/2023	0-1			<b>32.0</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
AH-6	9/29/2023	0-1			<b>48.0</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-		-	
AH-7	9/29/2023	0-1			<b>32.0</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		10.1		10.1	

NOTES:  
 ft. Feet  
 bgs Below ground surface  
 mg/kg Milligrams per kilogram  
 TPH Total Petroleum Hydrocarbons  
 GRO Gasoline range organics  
 DRO Diesel range organics  
 1 Method SM4500C1-B  
 2 Method 8021B  
 3 Method 8015M

**Bold and italicized values indicate exceedance of proposed Remediation RRALs and Reclamation Requirements.**  
 Shaded rows indicate intervals proposed for excavation.

QUALIFIERS:

TABLE 2  
 SUMMARY OF ANALYTICAL RESULTS  
 SOIL REMEDIATION - nMLB1011352696  
 CONOCOPHILLIPS  
 ORIOLE STATE COM #001 FLOWLINE RELEASE  
 LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth ft. bgs	Chloride <sup>1</sup> mg/kg Q		BTEX <sup>2</sup>								TPH <sup>3</sup>								
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO C <sub>6</sub> - C <sub>10</sub>		DRO > C <sub>10</sub> - C <sub>28</sub>		EXT DRO > C <sub>28</sub> - C <sub>36</sub>		Total TPH (GRO+DRO+EXT DRO) mg/kg
					mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	
NSW-1	2/14/2024	-	<b>656</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
NSW-1 (2')*	2/20/2024	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SSW-1	2/14/2024	-	64		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
ESW-1	2/14/2024	-	<b>3,920</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
ESW-1 (2')*	2/20/2024	-	64		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
ESW-2	2/14/2024	-	<b>1,260</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
ESW-2 (4')*	2/20/2024	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
ESW-3	2/14/2024	-	<b>2,960</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
ESW-3 (2')*	2/20/2024	-	64		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
WSW-1	2/14/2024	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
WSW-2	2/14/2024	-	224		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
WSW-3	2/14/2024	-	192		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
FS-1	2/20/2024	-	176		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
FS-2	2/20/2024	-	208		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
FS-3	2/20/2024	-	176		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
FS-4	2/20/2024	-	<b>4,080</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
FS-5	2/20/2024	-	<b>2,920</b>		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
FS-6	2/22/2024	1	208		<0.050		<0.050		<0.050		<0.150		<0.300		<0.300		<10.0		<10.0		-

NOTES:

- ft. Feet
- bgs Below ground surface
- mg/kg Milligrams per kilogram
- TPH Total Petroleum Hydrocarbons
- GRO Gasoline range organics
- DRO Diesel range organics
- 1 Method SM4500Cl-B
- 2 Method 8021B
- 3 Method 8015M

***Bold and italicized values indicate exceedance of proposed Remediation RRALS and Reclamation Requirements.***

Green highlight represents soil intervals that were removed during horizontal expansion of excavation sidewalls.

\* These iterative samples are located to encompass the original sample location that triggered removal, with further excavation in each area indicated in ().

TABLE 3  
 SUMMARY OF ANALYTICAL RESULTS  
 SOIL BACKFILL - nMLB1011352696  
 CONOCOPHILLIPS  
 ORIOLE STATE COM #001 FLOWLINE RELEASE  
 LEA COUNTY, NM

Sample ID	Sample Date	Chloride <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>						
				Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)
		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	
												C <sub>6</sub> - C <sub>10</sub>		> C <sub>10</sub> - C <sub>28</sub>		> C <sub>28</sub> - C <sub>36</sub>				
BACKFILL - COMPOSITE	2/14/2024	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-

NOTES:

- ft. Feet
- bgs Below ground surface
- mg/kg Milligrams per kilogram
- TPH Total Petroleum Hydrocarbons
- GRO Gasoline range organics
- DRO Diesel range organics
- 1 Method SM4500Cl-B
- 2 Method 8021B
- 3 Method 8015M

# **APPENDIX A C-141 Forms**

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	NAPP2326829702
District RP	
Facility ID	fAPP2203830839
Application ID	

## Release Notification

### Responsible Party

Responsible Party	COG Operating, LLC.	OGRID	229137
Contact Name	Jacob Laird	Contact Telephone	(575) 703-5482
Contact email	Jacob.Laird@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2326829702
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

### Location of Release Source

Latitude 32.7136 Longitude -103.5381  
*(NAD 83 in decimal degrees to 5 decimal places)*

Site Name	Oriole State 001H	Site Type	Flowline
Date Release Discovered	September 6, 2023	API# (if applicable)	

Unit Letter	Section	Township	Range	County
M	26	18S	34E	Lea

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 checked="" type="checkbox"/> Produced Water	Volume Released (bbls) <b>1.88</b>	Volume Recovered (bbls) <b>0</b>
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" 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

This release was caused by a pinhole in a swedge due to internal corrosion.  
The release was off pad.

Evaluation will be made of the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Incident ID	NAPP2326829702
District RP	
Facility ID	fAPP2203830839
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Brittany N. Esparza</u> Title: <u>Environmental Technician</u> Signature: <u></u> Date: <u>9/25/2023</u> email: <u>Brittany.Esparza@ConocoPhillips.com</u> Telephone: <u>(432) 221-0398</u>
<b><u>OCD Only</u></b> Received by: <u>Scott Rodgers</u> Date: <u>09/25/2023</u>

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Average Depth (in.)	On/Off Pad (dropdown)	Soil Spilled-Fluid Saturation (%)	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	45.0	21.0	0.5	Off-Pad ✓	15.02%	7.01	1.05
Rectangle B	24.0	18.0	0.5	Off-Pad ✓	15.02%	3.20	0.48
Rectangle C	21.0	15.0	0.5	Off-Pad ✓	15.02%	2.34	0.35
Rectangle D				✓		0.00	
Rectangle E				✓		0.00	
Rectangle F				✓		0.00	
Rectangle G				✓		0.00	
Rectangle H				✓		0.00	
Rectangle I				✓		0.00	
<b>Released to Imaging: 9/25/2023 10:23:59 AM</b>							

Total Subsurface Volume Released: 1.8849

CONDITIONS

Action 268488

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

**CONDITIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 268488
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
scott.rodgers	None	9/25/2023

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 <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

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: *Jacob Laird* \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Jacob Laird Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

# **APPENDIX B**

## **Regulatory Correspondence**



7770 Jefferson Street NE, Suite 410  
Albuquerque, New Mexico 87109  
Tel 505.254.1115 Fax 505.254.1116  
www.swca.com

October 4, 2023

**TO:** Ethan Ortega, Division Director & Archaeologist, New Mexico State Land Office, Santa Fe, New Mexico

**FROM:** SWCA Environmental Consultants

**SUBJECT:** Completion of an Archaeological Records Management Section (ARMS) Review for the Oriole St Com 1 Flowline Release Remediation Project on New Mexico State Land Office (SLO) lands in Lea County, NM

**Company Ref No:** None-Provided

**PROJECT DESCRIPTION:**

Tetra Tech, Inc. has requested that SWCA Environmental Consultants (SWCA) conduct an Archaeological Resources Management Section (ARMS) review for an inadvertent release in Lea County, New Mexico. The proposed project is located on lands managed by the New Mexico State Land Office (NMSLO) approximately 32.18 kilometers (20 miles) southwest of Lovington, NM in T18S R34E, Section 26.

A literature and file search were conducted on September 27, 2023, using the New Mexico Cultural Resources Information System online database which included a review of known cultural resources, such as the built environment, archaeological sites, and State/National Register listed properties. Other sources reviewed include the BLM GLO Records web site, <http://www.glorerecords.blm.gov>, which include land patent and general land office survey data. As this area was not settled by Spain, land grant records were not reviewed. The review was conducted for the Area of Potential Effect (APE) and 500 meters (0.31 mile) surrounding the APE. The land the proposed project is located on is part of the June 20, 1910: New Mexico Enabling Act (36 Stat. 557) patented on January 17, 1921.

**Recommendation:**

The project area and surrounding 500 m have been subject to four (4) cultural resource surveys, three (3) of which are qualifying. One previously recorded site with two LA numbers is located within the project area. The project area is entirely located on NMSLO-managed lands within LA 178082 and LA 191722. LA 178082 was last recorded on 7/28/2023 under NMCRIS Activity No. 153645. LA 191722 was last recorded on 7/26/2018 under NMCRIS Activity No. 141048. Both LA numbers are for the Hobbs Air Force Base Auxiliary Field #4, a World War II airstrip composed of concrete runways. Because the spill is within these cultural resource boundaries, SWCA consulted with the NMSLO on 9/21/2023 and confirmed that the completion of an ARMS letter will satisfy the requirements for release remediation. All remediation work will remain outside of the concrete runways. If cultural materials are identified during ground disturbing activities, work must stop and the NMSLO must be contacted.

Information regarding the findings can be found in Tables 1-2 and Figure 1.

Archaeologist  
Paisley DeFreese  
Attached: (2) Review Results, (1) ARMS Map



7770 Jefferson Street NE, Suite 410  
 Albuquerque, New Mexico 87109  
 Tel 505.254.1115 Fax 505.254.1116  
 www.swca.com

**Archaeological Resources Management Section (ARMS) Review Results**

**Table 1. Cultural surveys within 500 meters (0.31 miles) of proposed project.**

NMCRIS No.	Performing Organization	Date of Investigation	Acres Surveyed	Sites Visited
28500	Agency for Conservation Archaeology Eastern New Mexico University	6/9/1975	169.7	18
132584	Cibola Research Consultants	1/22/2015	60	2
141048	Lone Mountain Archaeological Services	4/23/2018	29,148.32	247
153645	J. T. Rein Archaeology, LLC.	7/14/2023	118.77	1

**Table 2. Cultural resources within 500 meters (0.31 mile) of the proposed project area.**

LA No.	Discovering NMCRIS No.	Site Type/Cultural Affiliation and Age	Eligibility	Relationship to APE
178082	129546	Artifact scatter with features/Anglo (A.D. 1944–1966)	Eligible, Criterion D (9/25/2023 No HPD Log No.)	Inside
191722	141048	Feature/Anglo (A.D. 1942–1966)	Unevaluated (2/19/2019 HPD Log No. 109822)	Inside

\*Redacted

**Figure 1. Screenshot showing location of the Oriole St Com 1 Flowline inadvertent release (white dots) with a 500-m (0.31-mile) buffer area surrounding the location. Previously recorded sites are red and tan polygons. Previously recorded surveys are brown and yellow polygons.**

**Subject:** FW: [EXTERNAL] Extension Request - Oriole State Com #001 Flowline Release  
(NAPP2326829702)

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**From:** Abbott, Sam <Sam.Abbott@tetrattech.com>  
**Sent:** Monday, December 11, 2023 10:56 AM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Llull, Christian <Christian.Llull@tetrattech.com>; Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>  
**Subject:** [EXTERNAL] Extension Request - Oriole State Com #001 Flowline Release  
(NAPP2326829702)

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

To whom it may concern,

On behalf of ConocoPhillips, Tetra Tech is requesting an additional 90-day extension (until March 7, 2024) to complete reporting for the for the Oriole State Com #001 Flowline Release **(NAPP2326829702)**.

According to the NMOCD C-141 Initial Report, the date of the release was September 6, 2023. The release occurred due to a pinhole in a swedge due to internal corrosion. Approximately 1.88 bbls of produced water were reported released, of which 0 bbl was recovered.

Tetra Tech has completed the following assessment activities at the release site:

- On September 29, 2023 Tetra Tech installed seven (7) hand auger borings (AH-1 through AH-7) to obtain vertical and horizontal delineation.
  - Auger refusal was encountered at 1.75 ft bgs at locations AH-1, AH-2 and AH-3 due to the dense subsurface lithology (caprock) beneath the footprint.
- Tetra Tech returned to the Site on October 16, 2023, to complete delineation of the release.
  - T-1 through T-3 were installed, and vertical delineation was achieved for the release.
- Analytical results associated with AH-1 through AH-3 and trench locations T-1 through T-3 exceeded the chloride reclamation requirement of 600 mg/kg in surface soils to 4 feet bgs.
- Tetra Tech proposes excavating the areas of AH-1/ T-1 and AH-2/T-2 to 4 ft bgs and the areas of AH-3/T-3 to 3 ft bgs.

ConocoPhillips submitted a Work Plan to the New Mexico State Land Office (NMSLO), on November 29, 2023, as the site is located on state lands managed by the NMSLO.

As of today, the NMSLO has not approved the proposed work for the Oriole State Com #001 Flowline Release.

Upon approval of the Work Plan by the NMSLO, ConocoPhillips will execute the plan and prepare a closure report documenting the reclamation activities. A complete report will be submitted to the NMOCD within the requested timeframe.

Thank you,  
Sam

**From:** [Velez, Nelson, EMNRD](#)  
**To:** [Abbott, Sam](#)  
**Cc:** [Lull, Christian](#); [Chavira, Lisbeth](#); [Bratcher, Michael, EMNRD](#)  
**Subject:** Re: [EXTERNAL] Extension Request - Oriole State Com #001 Flowline Release (NAPP2326829702)  
**Date:** Monday, December 11, 2023 2:22:15 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[Outlook-e13wwfpr.png](#)

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Good afternoon Samantha,

Your 90-day time extension is approved. Remediation Due date has been updated to March 4, 2024.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
 Environmental Bureau | EMNRD - Oil Conservation Division  
 1000 Rio Brazos Road | Aztec, NM 87410  
 (505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>




---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Monday, December 11, 2023 11:11 AM  
**To:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

**From:** [Knight, Tami C.](#)  
**To:** [Esparza, Brittany](#); [Laird, Jacob](#)  
**Cc:** [Chavira, Lisbeth](#); [Lull, Christian](#); [Barnes, Will](#); [Griffin, Becky R.](#); [David, Deon W.](#)  
**Subject:** NAPP2326829702\_COP\_Oriole State Com 001\_Work Plan\_Approved  
**Date:** Monday, December 18, 2023 9:14:32 AM  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)  
[image003.jpg](#)  
[image004.jpg](#)

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Documentation of proposed remediation actions for the subject release incident was received from your office on November 29, 2023. The NMSLO Environmental Compliance Office (ECO) has reviewed the plan, and based on the information provided in the document received from your office, ECO has approved the remediation plan. Please submit the remediation closure report to [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us).

**Note: NMSLO is closed December 25 – January 1. Workplans and Reports will not be processed during this time. Happy Holidays!**

**Tami Knight, CHMM**  
*Environmental Specialist*  
*SRD-Environmental*  
*Compliance Office (ECO)*  
 505.670.1638  
 New Mexico State Land Office  
 1300 W. Broadway Avenue, Suite A  
 Bloomfield, NM 87413  
 tknight@slo.state.nm.us  
[nmstatelands.org](http://nmstatelands.org)

**PLEASE SUBMIT WORKPLANS AND REPORTS TO ECO@SLO.STATE.NM.US**

.....

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**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Lull, Christian](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 313167  
**Date:** Friday, February 9, 2024 2:32:47 PM

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

To whom it may concern (c/o Christian LLuLL for COG OPERATING LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2326829702.

The sampling event is expected to take place:

**When:** 02/14/2024 @ 10:00

**Where:** M-26-18S-34E 0 FNL 0 FEL (32.71361,-103.53811)

**Additional Information:** Oriole State Com #001 Flowline Release  
32.713645° -103.538223°

**Additional Instructions:** 32.713645° -103.538223°

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**From:** [Lull, Christian](#)  
**To:** [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us)  
**Cc:** [Chavira, Lisbeth](#); [Knight, Tami C.](#)  
**Subject:** Oriole State Com #001 Flowline Release (NAPP2326829702) - Notice of Confirmation Sampling  
**Date:** Monday, February 12, 2024 4:13:00 PM

---

Tami:

RE: **Oriole State Com #001 Flowline Release** (NAPP2326829702).

On Monday 12/18/2023, ECO approved the NAPP2326829702 Work Plan via email.

In accordance with recent guidance, 2-day sampling notification is being provided for the following site.

**Oriole State Com #001 Flowline Release**

**ConocoPhillips**

**Lea County, New Mexico**

**32.713645° -103.538223°**

**DOR 9/06/23**

**Incident ID NAPP2326829702**

Site Preparation activities are beginning at the site tomorrow, and confirmation sampling will begin Wednesday, February 14, 2024.

Please let me know if you have any questions.

Thank you in advance.

Christian  
512-565-0190

---

**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>  
**Sent:** Friday, February 09, 2024 2:32 PM  
**To:** Lull, Christian <Christian.Llull@tetrattech.com>  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 313167



**Additional Information:** Oriole State Com #001 Flowline Release  
32.713645° -103.538223°

**Additional Instructions:** 32.713645° -103.538223°

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**Samantha Abbott, PG** | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetratech.com](mailto:Sam.Abbott@tetratech.com)

**Tetra Tech, Inc.** | *Leading with Science*<sup>®</sup> | OGA

8911 N Capital of Texas Hwy #2310 | Austin, TX 78759 | [tetratech.com](http://tetratech.com)

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Please consider the environment before printing. [Read more](#)



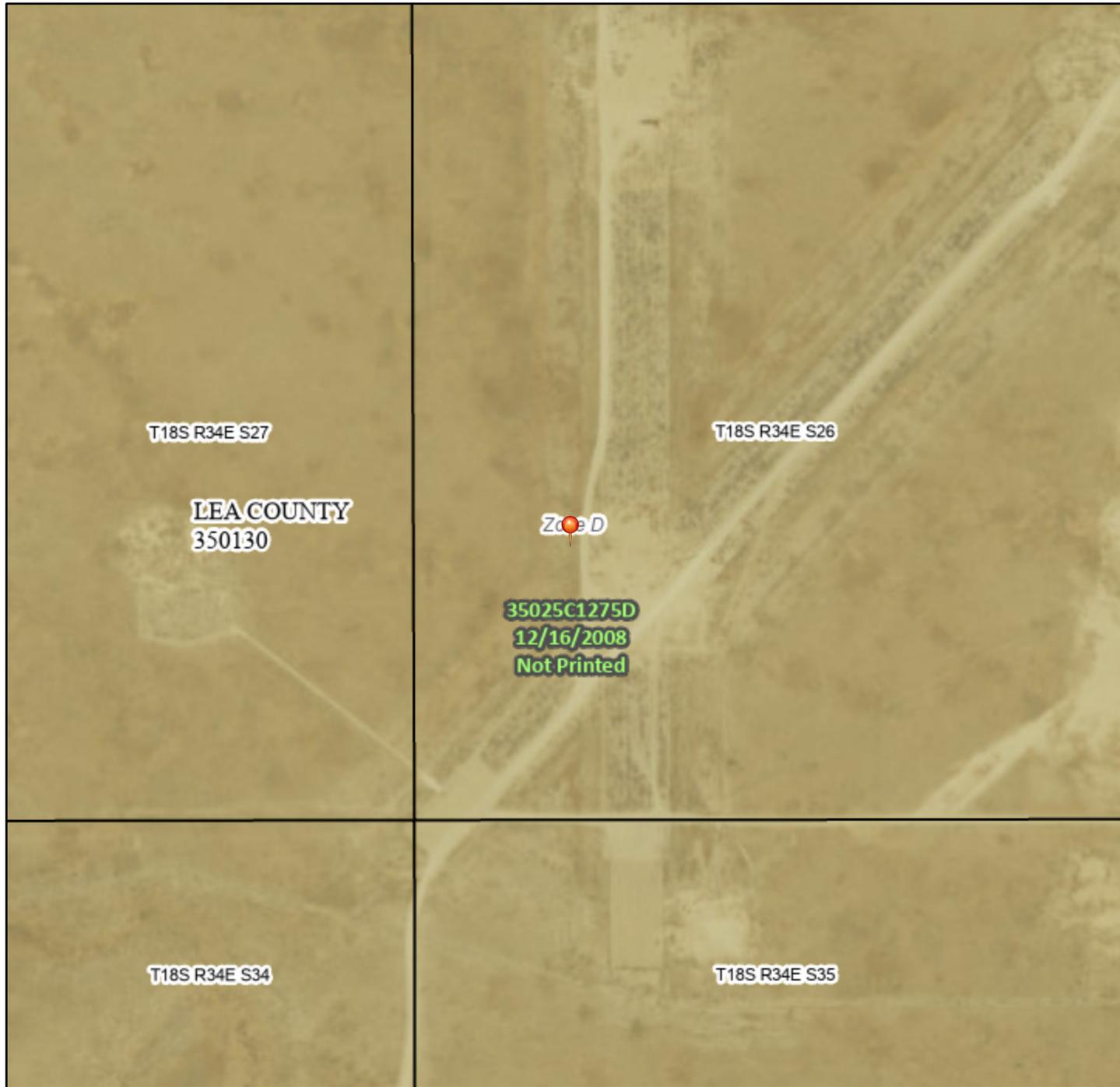
# **APPENDIX C**

## **Site Characterization Data**

# National Flood Hazard Layer FIRMette



103°32'36"W 32°43'4"N



## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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

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

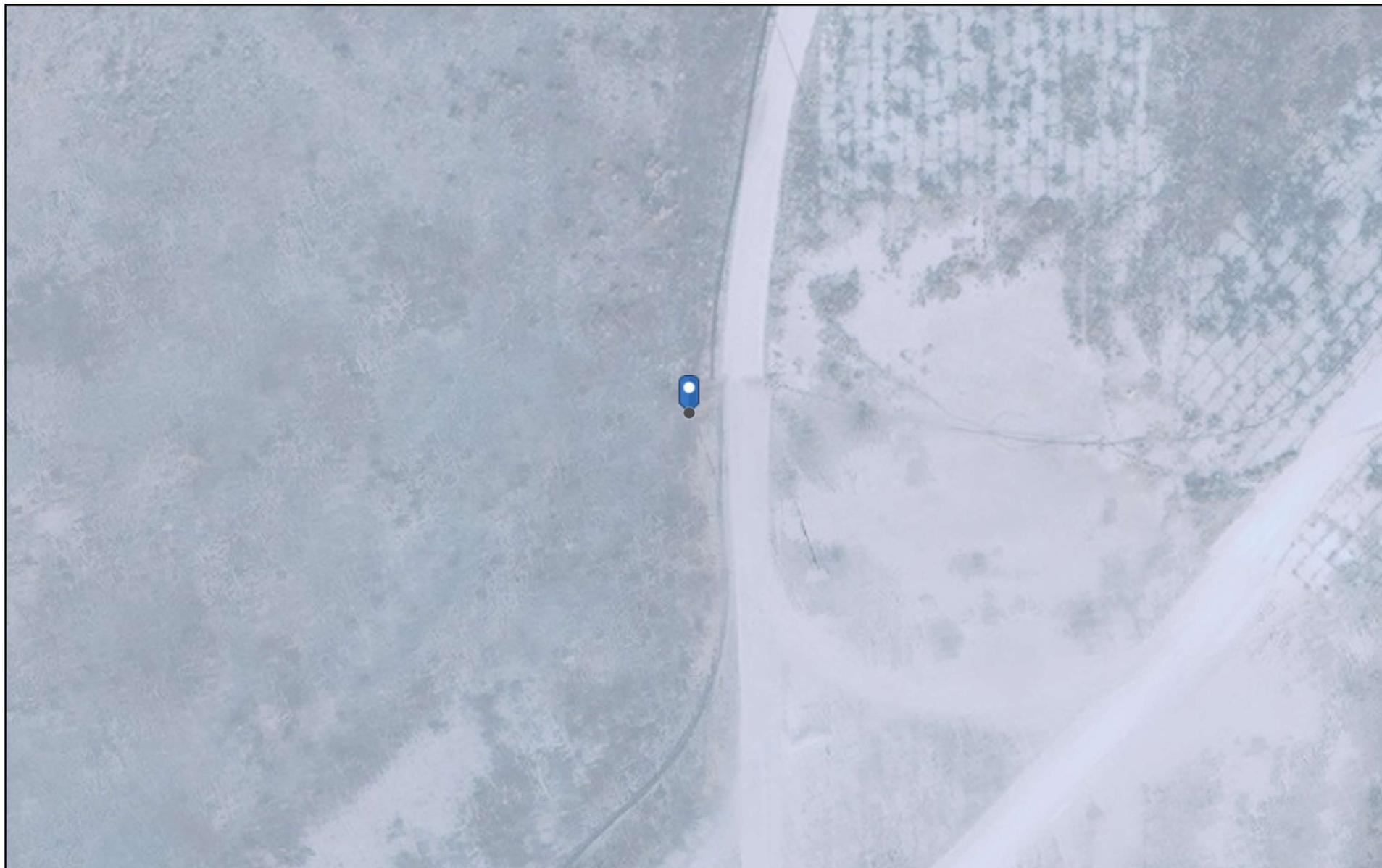
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/22/2023 at 12:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Released to Imaging: 3/8/2024 1:40:21 AM

1:6,000  
Basemap Imagery Source: USGS National Map 2023

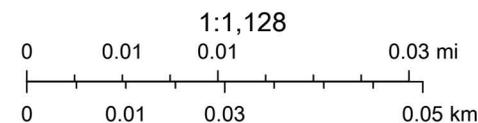
# OCD Karst Potential Map



9/22/2023, 12:08:15 PM

Karst Occurrence Potential

 Low



BLM, OCD, New Mexico Tech, Maxar, Microsoft, Esri, HERE, Garmin, iPC

New Mexico Oil Conservation Division



# 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
<a href="#">L 12633 POD1</a>	L	LE		2	2	2	34	18S	34E	636852	3620203	319	180	117	63
<a href="#">L 09576</a>	L	LE		1	1	35	18S	34E	637082	3620041*	453	180	130	50	
<a href="#">L 14650 POD5</a>	L	LE		4	4	2	27	18S	34E	636738	3621101	667	200	75	125

Average Depth to Water: **107 feet**  
Minimum Depth: **75 feet**  
Maximum Depth: **130 feet**

**Record Count:** 3

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 636998.82

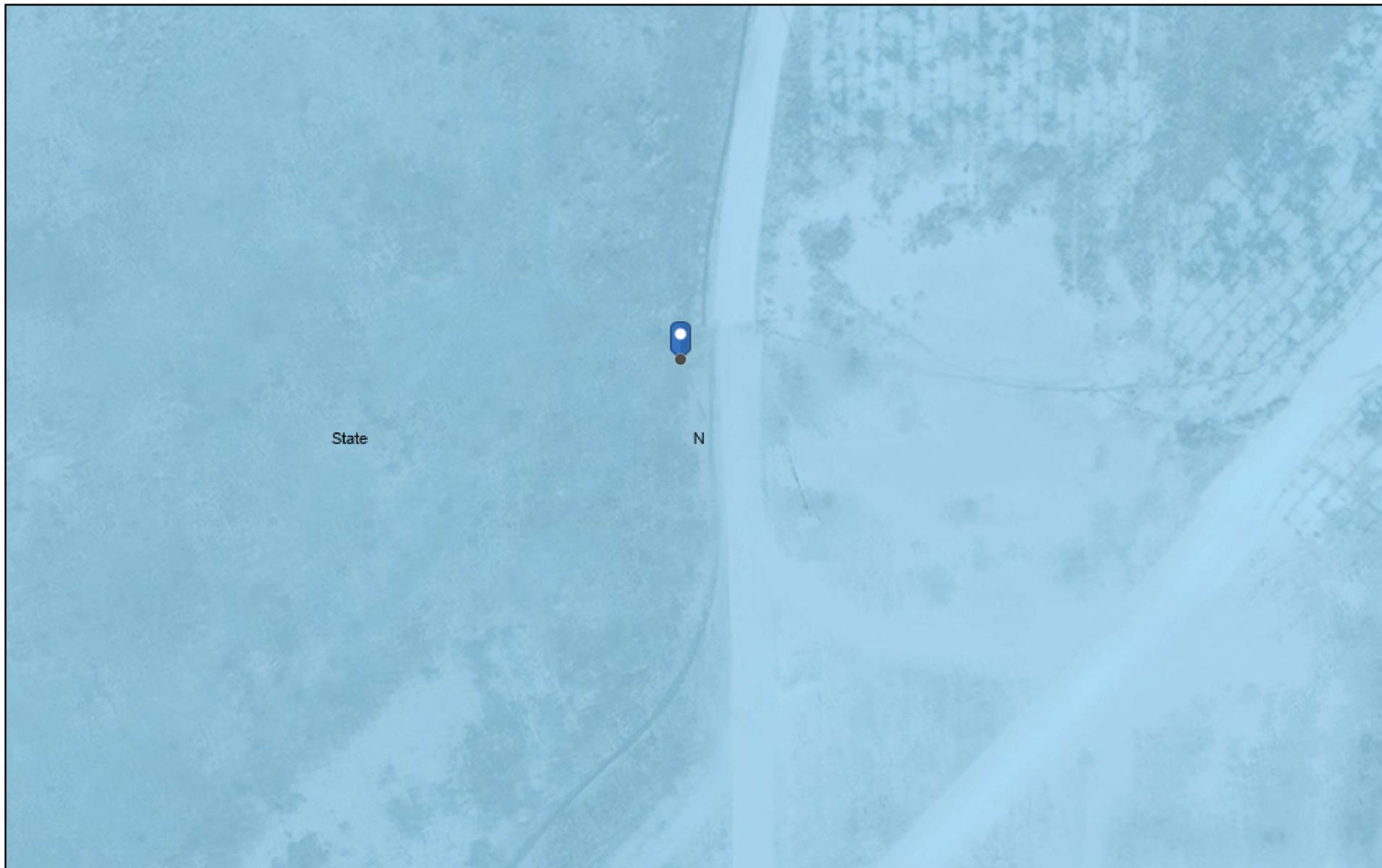
**Northing (Y):** 3620487.14

**Radius:** 800

\*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.

# OCD - Mineral and Surface Ownership



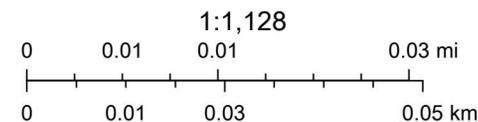
9/22/2023, 12:10:30 PM

Mineral Ownership

N-No minerals are owned by the U.S.

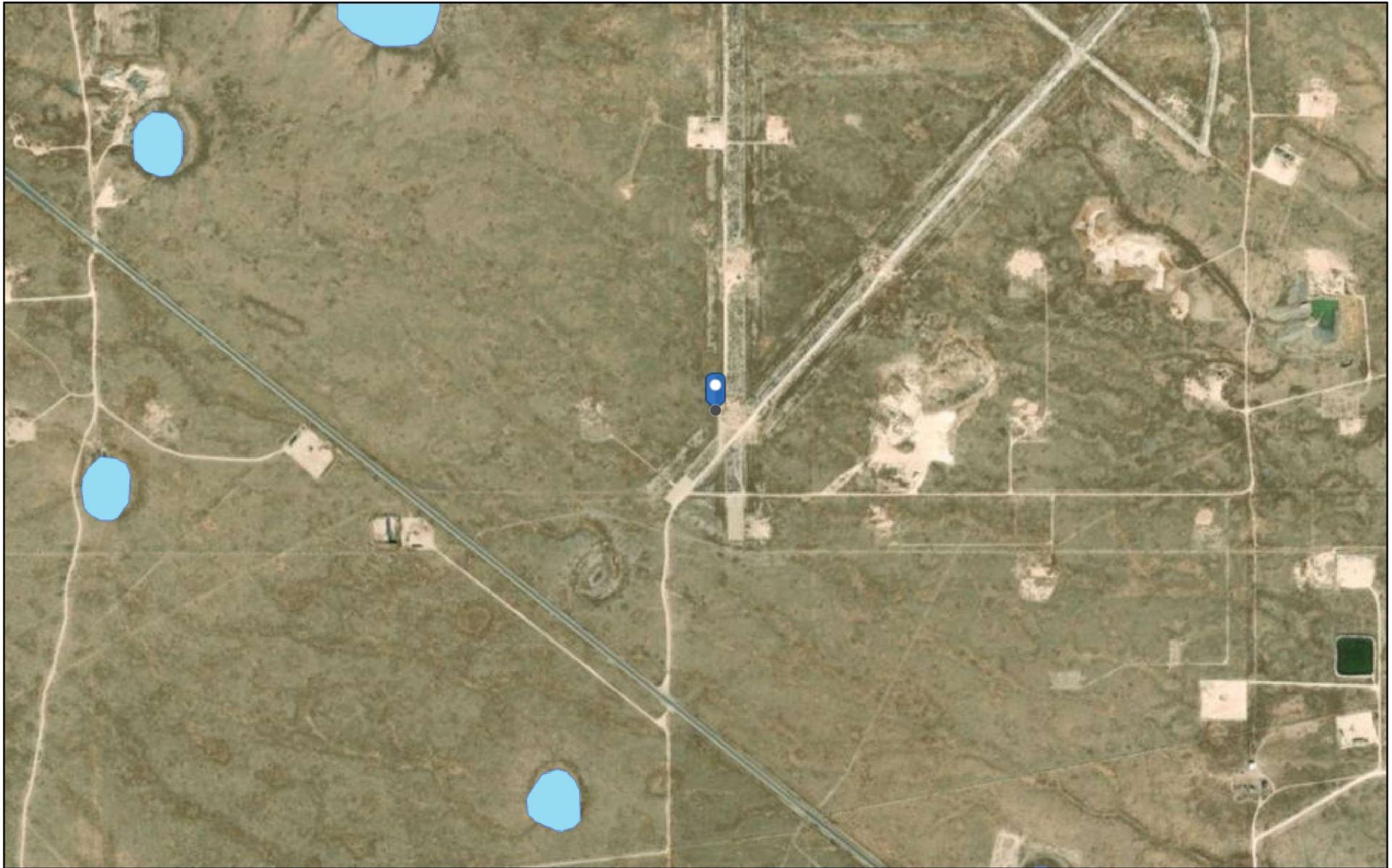
Land Ownership

S



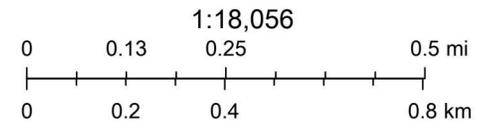
U.S. BLM, Maxar, Microsoft, OCD, Esri, HERE, Garmin, iPC

# OCD Water Bodies Map



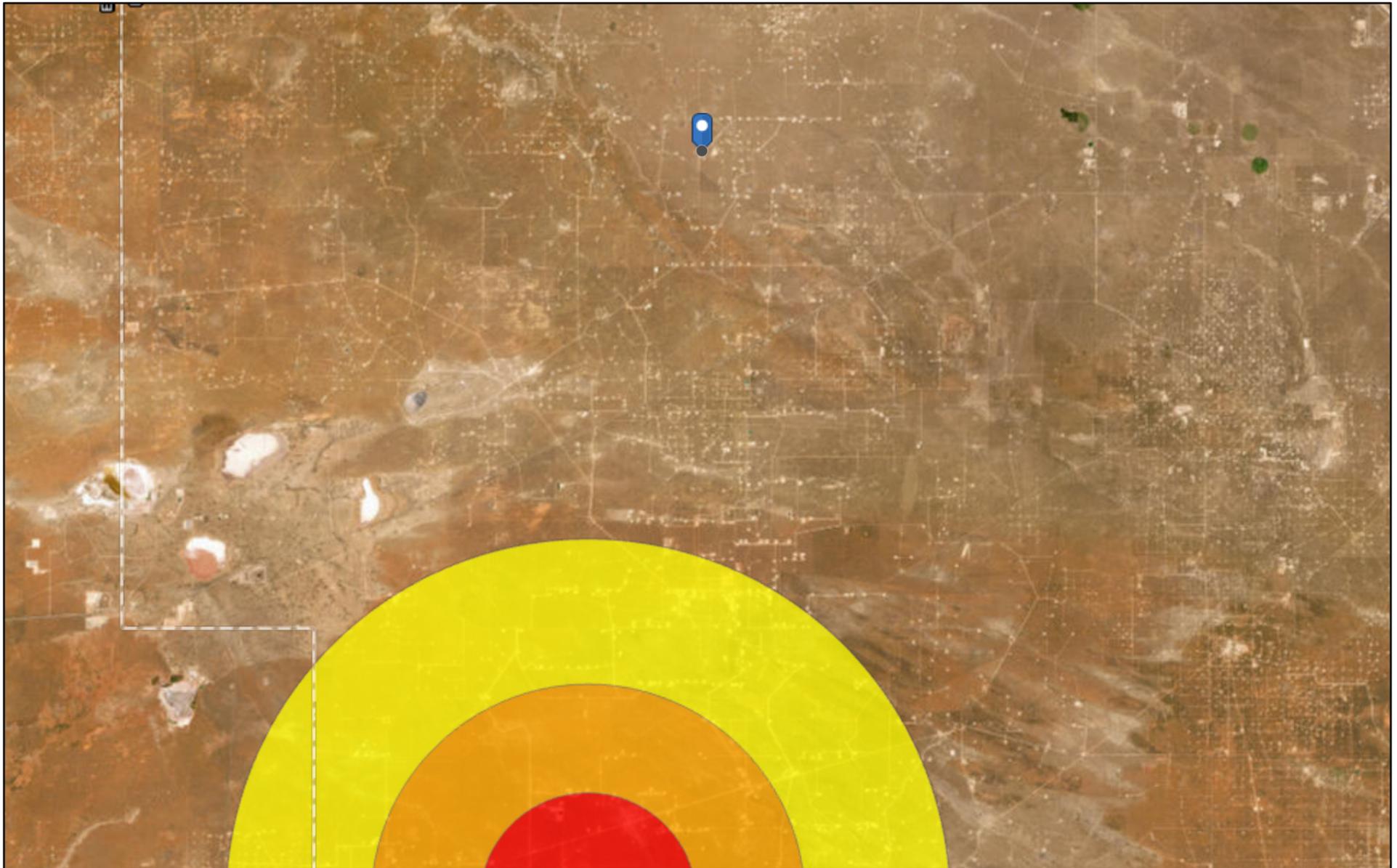
9/22/2023, 12:19:54 PM

 OSW Water Bodys



OCD, Esri, HERE, Garmin, iPC, Maxar, NM OSE

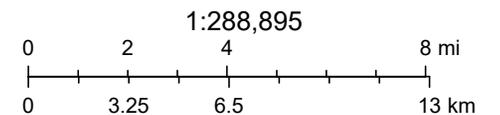
# OCD Induced Seismicity Area



2/27/2024, 8:39:55 AM

Seismic Response 3.0 to 3.4

	3 mi.		6 mi.
	10 mi.		



Oil Conservation Division (OCD), Energy, Minerals and Natural Resources Department (EMNRD), Esri, HERE, Garmin, Earthstar Geographics

New Mexico Oil Conservation Division



**U.S. Fish and Wildlife Service**  
**National Wetlands Inventory**

# National Wetlands Inventory



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands\_team@fws.gov

February 27, 2024

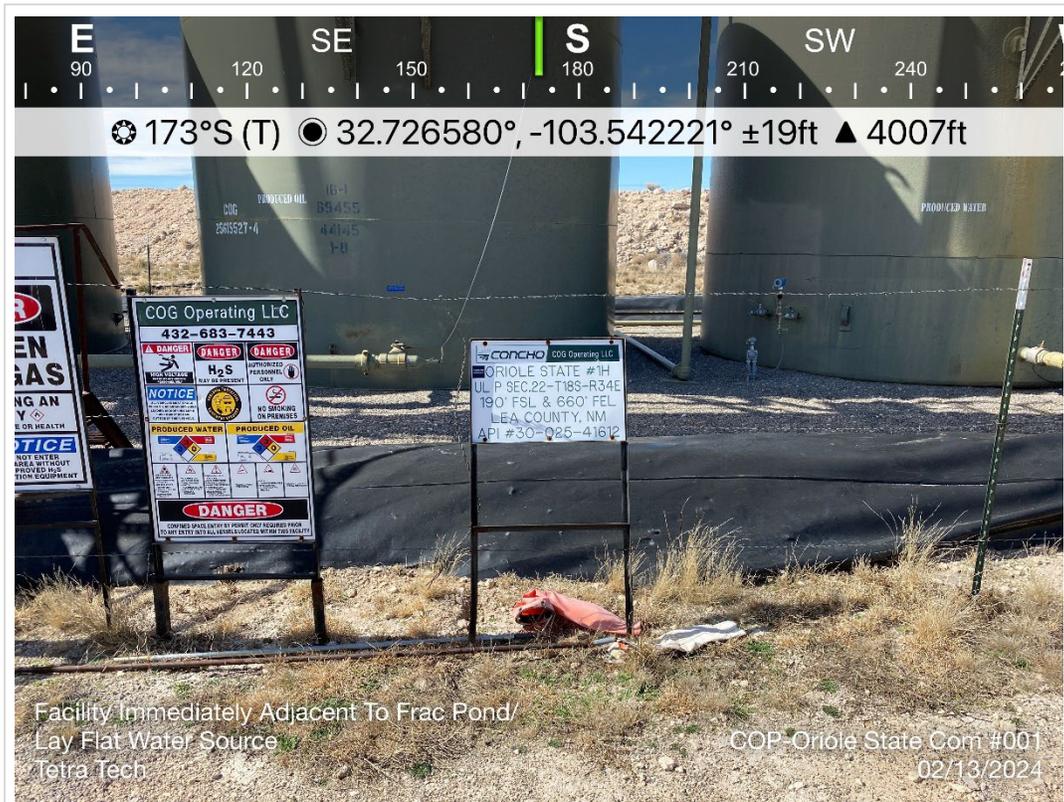
**Wetlands**

-  Estuarine and Marine Deepwater
-  Freshwater Emergent Wetland
-  Lake
-  Estuarine and Marine Wetland
-  Freshwater Forested/Shrub Wetland
-  Other
-  Freshwater Pond
-  Riverine

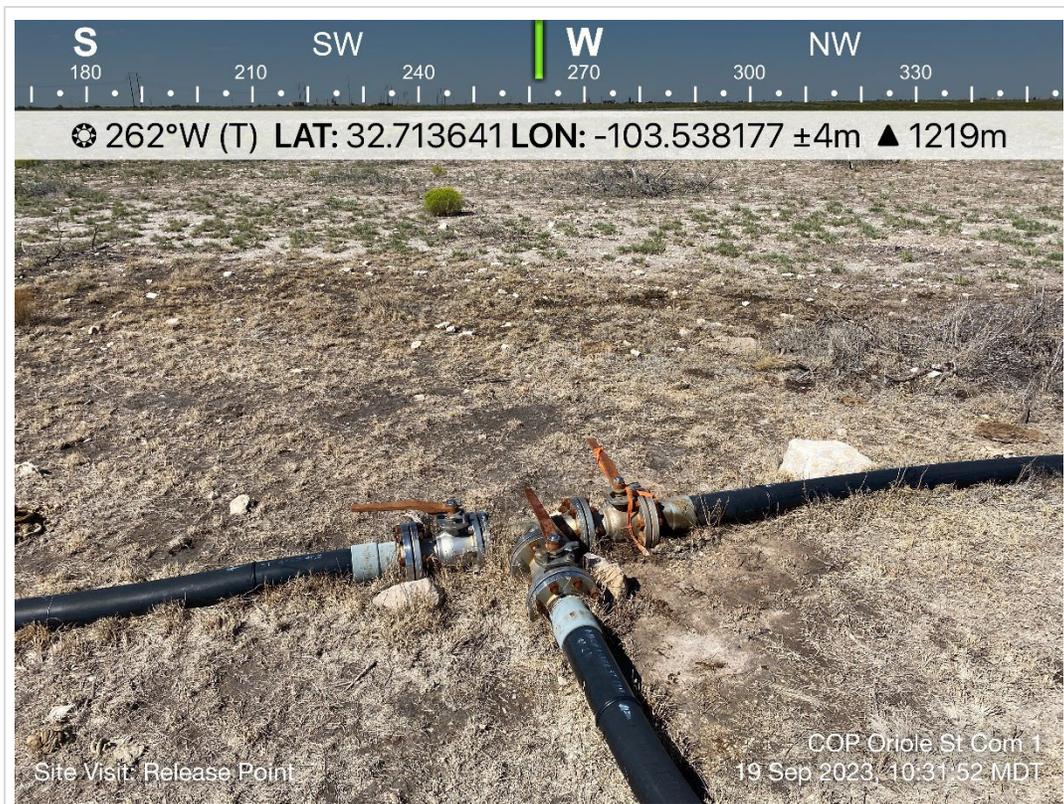
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# **APPENDIX D**

## **Photographic Documentation**



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View of site signage. Oriole State #1H.	1
	SITE NAME	ORIOLE STATE COM 1 Release	2/13/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View west of approximate release point. Surface polylines present.	2
	SITE NAME	ORIOLE STATE COM 1 Release	9/19/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View southwest of approximate release extent. Surface polylines and lay flat.	3
	SITE NAME	ORIOLE STATE COM 1 Release	9/19/2023



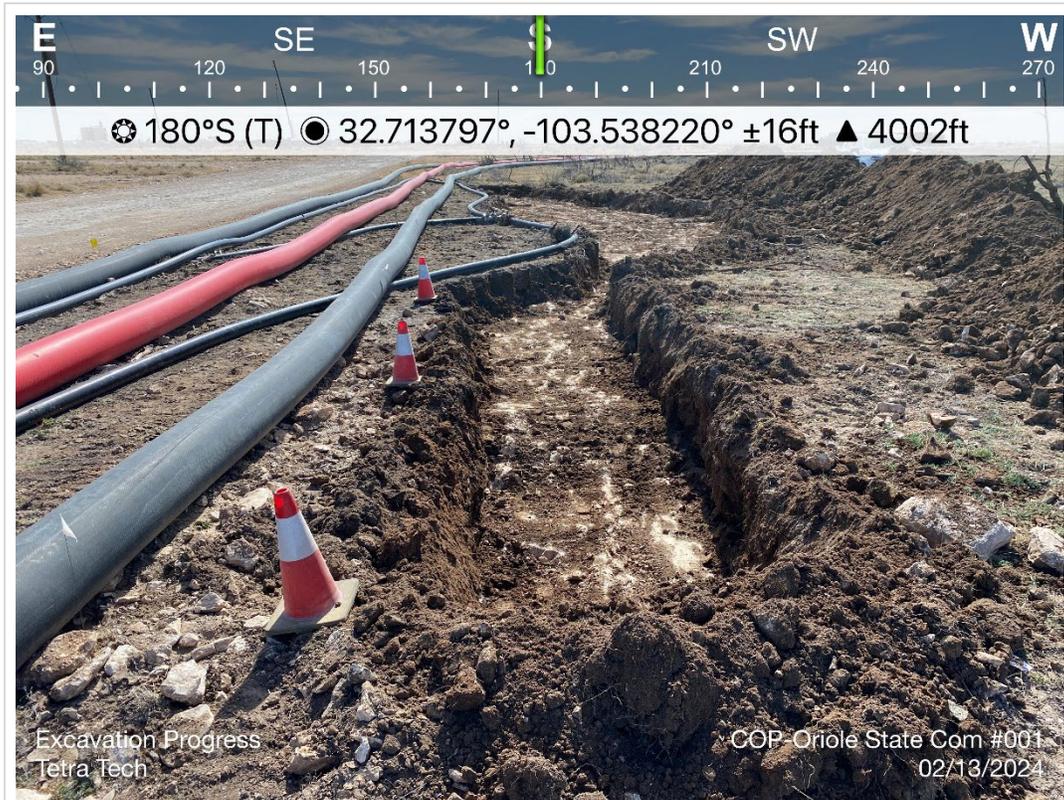
TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View south-southwest of approximate release extent. Surface polylines and lay flat.	4
	SITE NAME	ORIOLE STATE COM 1 Release	9/19/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View north of approximate release extent. Surface polylines and lay flat. Staining observed.	5
	SITE NAME	ORIOLE STATE COM 1 Release	9/19/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View north-northwest of excavation activities. Surface polylines and additional unexpected lay flats.	6
	SITE NAME	ORIOLE STATE COM 1 Release	2/13/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View south of excavation activities. Surface polylines and additional unexpected lay flats.	7
	SITE NAME	ORIOLE STATE COM 1 Release	2/13/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View north of open excavation progress and removed lay flats.	8
	SITE NAME	ORIOLE STATE COM 1 Release	2/19/2024



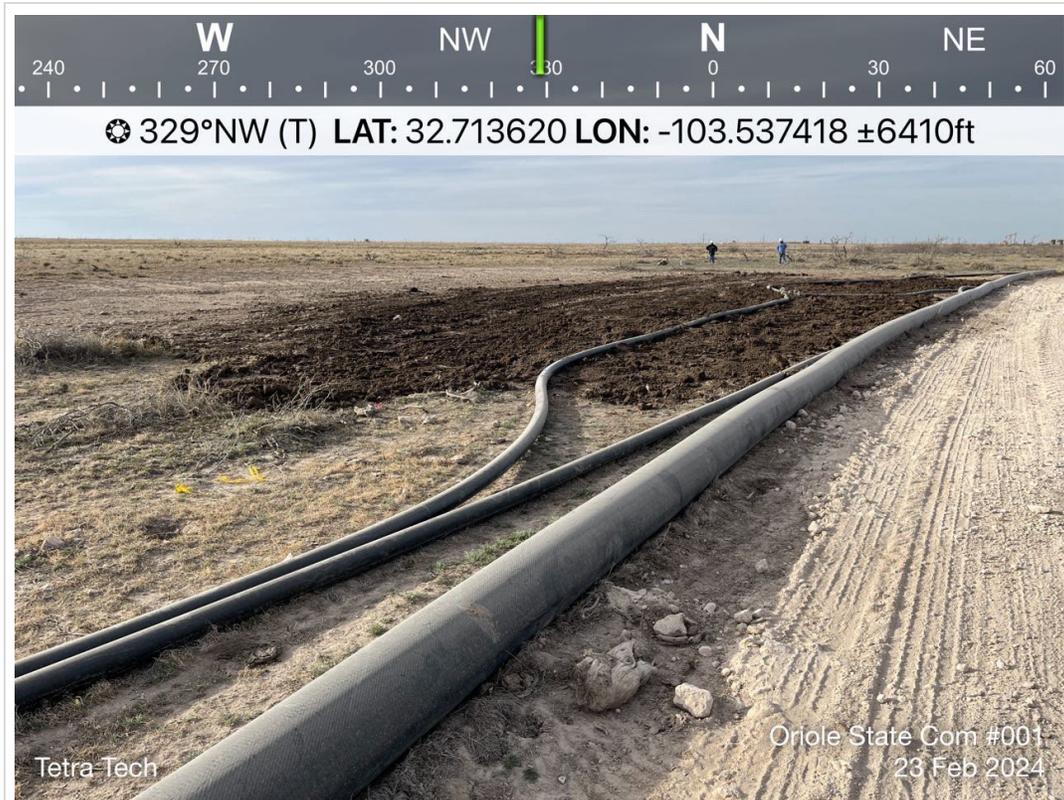
TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View southwest of open excavation progress east side of the road. Non-aggressive excavation area around lay flat.	9
	SITE NAME	ORIOLE STATE COM 1 Release	2/23/2024



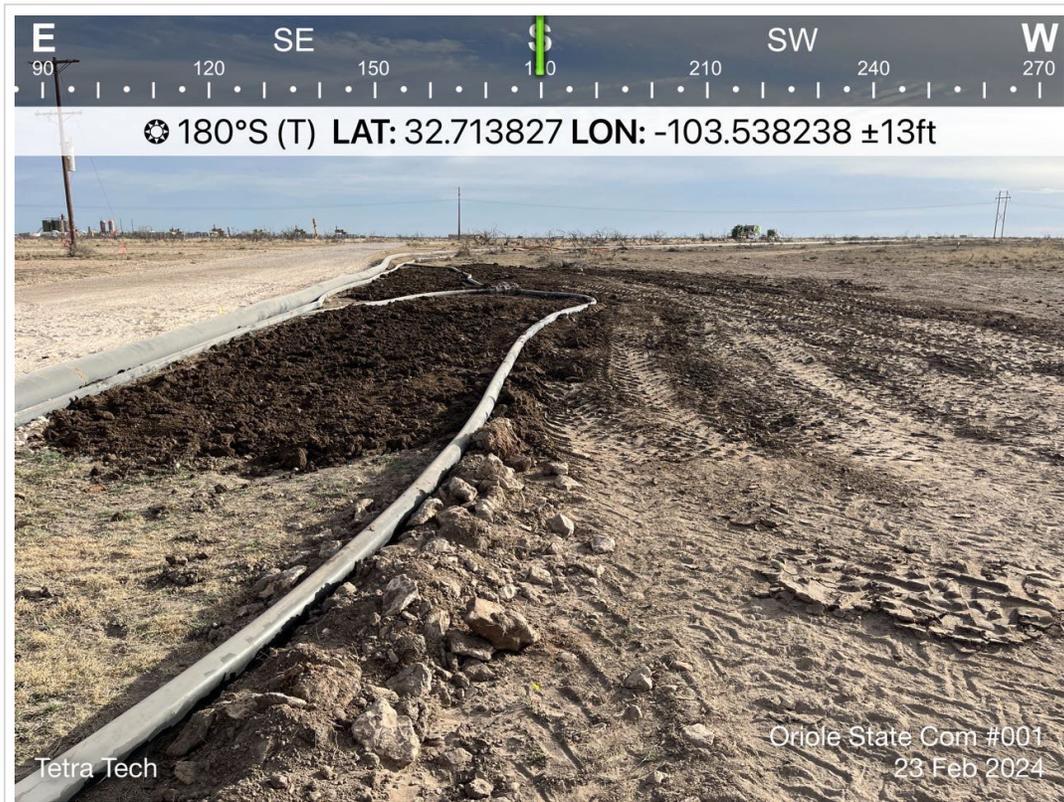
TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View southwest of open excavation. Non-aggressive excavation area around padded polylines.	10
	SITE NAME	ORIOLE STATE COM 1 Release	2/23/2024



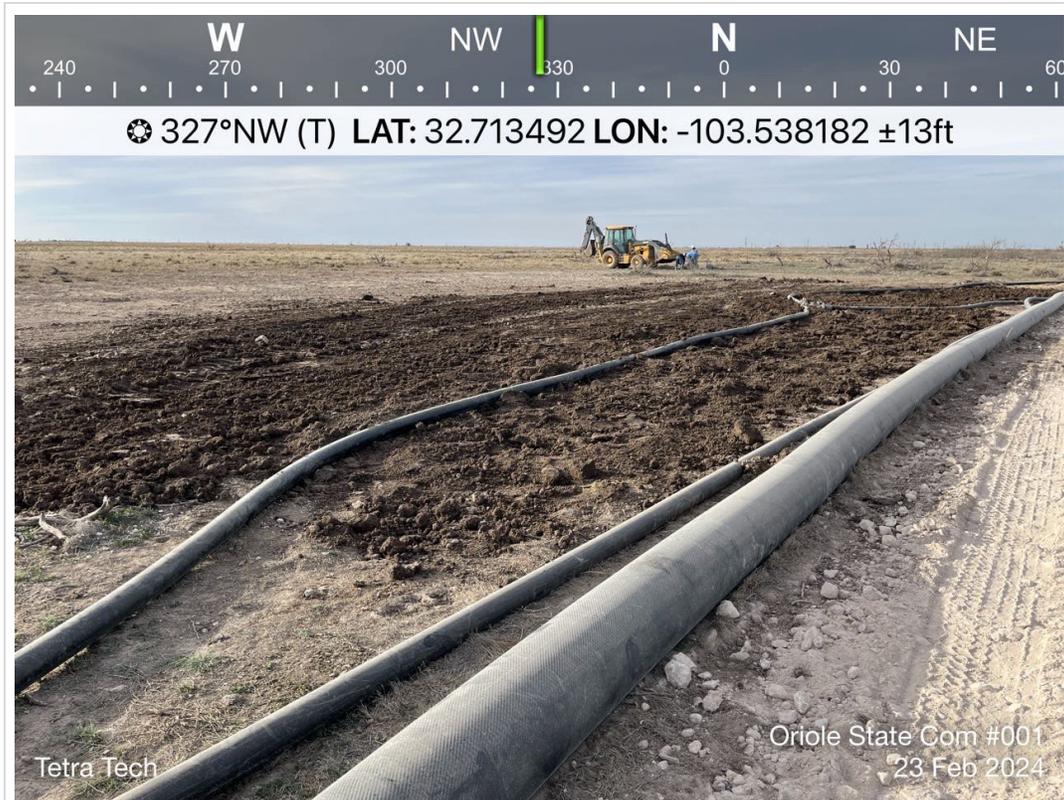
TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View south-southwest of open excavation. Non-aggressive excavation area around padded polylines.	11
	SITE NAME	ORIOLE STATE COM 1 Release	2/23/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View north-northwest of backfilled and seeded excavation.	12
	SITE NAME	ORIOLE STATE COM 1 Release	2/23/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View south of backfilled and seeded excavation.	13
	SITE NAME	ORIOLE STATE COM 1 Release	2/23/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03236	DESCRIPTION	View north-northwest of backfilled and seeded excavation.	14
	SITE NAME	ORIOLE STATE COM 1 Release	2/23/2024

# **APPENDIX E**

## **Laboratory Analytical Data**



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

October 05, 2023

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: ORIOLE STATE COM #001 FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 09/29/23 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 1 (0'-1') (H235332-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6400	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 1 (1.5'-1.75') (H235332-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 2 (0'-1') (H235332-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7200	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 92.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 3 (0'-1') (H235332-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1540	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
DRO >C10-C28*	15.5	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 92.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 3 (1.5'-1.75') (H235332-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3400</b>	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
<b>DRO &gt;C10-C28*</b>	<b>10.7</b>	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 4 (H235332-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 81.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.1 % 49.1-148

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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 5 (H235332-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 83.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 6 (H235332-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	09/29/2023	Sampling Date:	09/29/2023
Reported:	10/05/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: AH - 7 (H235332-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/03/2023	ND	2.14	107	2.00	4.20	
Toluene*	<0.050	0.050	10/03/2023	ND	2.21	110	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/03/2023	ND	2.18	109	2.00	1.98	
Total Xylenes*	<0.150	0.150	10/03/2023	ND	6.32	105	6.00	3.92	
Total BTEX	<0.300	0.300	10/03/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	10/02/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/02/2023	ND	180	90.0	200	1.86	
<b>DRO &gt;C10-C28*</b>	<b>10.1</b>	10.0	10/02/2023	ND	213	107	200	0.789	
EXT DRO >C28-C36	<10.0	10.0	10/02/2023	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Conoco Phillips P.O. #:  
 Project Manager: Christian Lull Company: TetraTech  
 Address: Attn: Christian Lull  
 City: State: Zip: Address:  
 Phone #: Fax #: City: State: Zip: Phone #: Fax #:  
 Project #: 212C-MD-03236 Project Owner: State: Zip:  
 Project Name: Oriskany State Com #001 Flowline Release  
 Project Location: Lea Co, NM Phone #:  
 Sampler Name: Andrew Garcia Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.	SAMPLING	DATE	TIME	TPT	BTEX	Chlorides 4500
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:							
<u>H235332</u>																	
	AH-1 (0'-1')	G	1			X				X		29 Sept	900	X	X	X	
	AH-1 (1.5'-1.75')												930	X	X	X	
	AH-2 (0'-1')												1000	X	X	X	
	AH-3 (0'-1')												1030	X	X	X	
	AH-3 (1.5'-1.75')												1100	X	X	X	
	AH-4												1130	X	X	X	
	AH-5												1200	X	X	X	
	AH-6												1215	X	X	X	
	AH-7												1230	X	X	X	

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Relinquished By: Andrew Garcia Date: 29 Sept 23  
 Time: 15:30  
 Received By: Christian Lull  
 Date: 29 Sept 23  
 Time: 15:30  
 Turnaround Time: Standard  Rush  
 Bacteria (only)  Sample Condition  
 Cool Intact  Observed Temp. °C  
 Corrected Temp. °C

Delivered By: (Circle One) UPS Observed Temp. °C 24  
 Corrected Temp. °C  
 Sampler - UPS - Bus - Other:  Sample Condition  
 Cool Intact  Yes  No  
 Checked By: AO (Initials)  
 Turnaround Time: Standard  Rush  
 Bacteria (only)  Sample Condition  
 Cool Intact  Observed Temp. °C  
 Corrected Temp. °C



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

October 20, 2023

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: ORIOLE STATE COM #001 FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 10/17/23 14:28.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 1 (0-1') (H235670-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.05	102	2.00	3.85	
Toluene*	<0.050	0.050	10/19/2023	ND	2.15	107	2.00	1.23	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.12	106	2.00	1.41	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.28	105	6.00	1.83	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7440	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 1 (2'-3') (H235670-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.05	102	2.00	3.85	
Toluene*	<0.050	0.050	10/19/2023	ND	2.15	107	2.00	1.23	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.12	106	2.00	1.41	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.28	105	6.00	1.83	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3920	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 1 (3'-4') (H235670-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.05	102	2.00	3.85	
Toluene*	<0.050	0.050	10/19/2023	ND	2.15	107	2.00	1.23	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.12	106	2.00	1.41	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.28	105	6.00	1.83	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2280	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 1 (4'-5') (H235670-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 2 (2'-3') (H235670-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 97.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 2 (3'-4') (H235670-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 3 (2'-3') (H235670-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.0 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/17/2023	Sampling Date:	10/16/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: T - 3 (3'-4') (H235670-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	10/18/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 95.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Tetra Tech  
 Project Manager: Sam Abbott  
 Address: 8911 Capital o Texas Hwy, Suite 2310  
 City: Austin State: TX Zip:  
 Phone #: (512)565-0190 Fax #:  
 Project #: 212C-MD-03236 Project Owner: ConocoPhillips City: State: Zip:  
 Project Name: Ordele State Com #001 Flowline Release  
 Project Location: Lea County, New Mexico  
 Sampler Name: Colton Bickerstaff  
 Lab I.D.:

Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING	DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM4500CI-B
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE							
1	T-1 (0-1)	1							10/16/2023		X	X	X	
2	T-1 (2-3)	1							10/16/2023		X	X	X	
3	T-1 (3-4)	1							10/16/2023		X	X	X	
4	T-1 (4-5)	1							10/16/2023		X	X	X	
5	T-2 (2-3)	1							10/16/2023		X	X	X	
6	T-2 (3-4)	1							10/16/2023		X	X	X	
7	T-3 (2-3)	1							10/16/2023		X	X	X	
8	T-3 (3-4)	1							10/16/2023		X	X	X	

FOR USE ONLY  
 Relinquished By: Colton Bickerstaff  
 Date: 10/17/23  
 Received By: *[Signature]*  
 Date: *[Signature]*  
 Time: *[Signature]*

Relinquished By: *[Signature]*  
 Date: 10/17/23  
 Time: *[Signature]*  
 Received By: *[Signature]*  
 Date: *[Signature]*  
 Time: *[Signature]*

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other:  
 Observed Temp. °C: 17  
 Corrected Temp. °C: *[Signature]*

Sample Condition:  
 Cool  Ambient  Heat  
 No  No

Checked By: (Initials) *[Signature]*

Turnaround Time: Standard  Batch (only) Sample.com  
 Rush: NO  YES  *[Signature]*  
 Thermometer ID: #1140  
 Correction Factor: *[Signature]*

Verbal Results:  Yes  No  
 All Results are emailed. Please provide Email address: Sam.Abbott@tetratech.com  
 Add'l Phone #: *[Signature]*

Observed Temp. °C: *[Signature]*  
 Corrected Temp. °C: *[Signature]*

FORM-006 R 3.2 10/07/21

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



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

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February 15, 2024

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: ORIOLE STATE COM #001 FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/14/24 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: NSW - 1 (H240708-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/14/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/14/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/14/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	02/15/2024	ND	432	108	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/14/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/14/2024	ND					

Surrogate: 1-Chlorooctane 74.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.9 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: SSW - 1 (H240708-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/14/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/14/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/14/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/14/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/15/2024	ND	432	108	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/14/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/14/2024	ND					

Surrogate: 1-Chlorooctane 77.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: ESW - 1 (H240708-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/14/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/14/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/14/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3920	16.0	02/15/2024	ND	432	108	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/15/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/15/2024	ND					

Surrogate: 1-Chlorooctane 85.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: ESW - 2 (H240708-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/14/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/14/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/14/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	02/15/2024	ND	432	108	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/15/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/15/2024	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: ESW - 3 (H240708-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/14/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/14/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/14/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2960	16.0	02/15/2024	ND	432	108	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/15/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/15/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: WSW - 1 (H240708-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/15/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/15/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/15/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2024	ND	432	108	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/15/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/15/2024	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.7 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: WSW - 2 (H240708-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/15/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/15/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/15/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/15/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/15/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/15/2024	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: WSW - 3 (H240708-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/15/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/15/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/15/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/15/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/15/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/15/2024	ND					

Surrogate: 1-Chlorooctane 75.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/14/2024	Sampling Date:	02/14/2024
Reported:	02/15/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Tamara Oldaker
Project Location:	COP LEA CO. , NM		

**Sample ID: BACKFILL - COMPOSITE (H240708-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2024	ND	1.98	98.8	2.00	7.47	
Toluene*	<0.050	0.050	02/15/2024	ND	1.97	98.7	2.00	7.88	
Ethylbenzene*	<0.050	0.050	02/15/2024	ND	1.95	97.7	2.00	7.50	
Total Xylenes*	<0.150	0.150	02/15/2024	ND	5.95	99.2	6.00	6.92	
Total BTEX	<0.300	0.300	02/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/15/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2024	ND	196	98.2	200	3.58	
DRO >C10-C28*	<10.0	10.0	02/15/2024	ND	203	102	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	02/15/2024	ND					

Surrogate: 1-Chlorooctane 71.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Tetra Tech Project Manager: Christian Lull Address: 8911 Capital of Texas Hwy, Suite 2310 City: Austin State: TX Zip: Phone #: (512)565-0190 Fax #: Project #: 212C-MD-03236 Project Owner: ConocoPhillips Project Name: Ortle State Corn #001 Flowline Release Project Location: Lea County, New Mexico Sampler Name: Colton Bickerstaff Lab I.D.		P.O. #: Company: Tetra Tech Attn: Christian Lull Address: EMAIL City: State: Zip: Phone #: Fax #: PRESERV. SAMPLING	
Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS MATRIX: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE OTHER: ACID/BASE, ICE / COOL, OTHER:	
1 NSW-1 2 SSW-1 3 ESW-1 4 ESW-2 5 ESW-3 6 WSW-1 7 WSW-2 8 WSW-3 9 Backfill-Composite	G 1 G 1 G 1 G 1 G 1 G 1 G 1 G 1	X X X X X X X X X	DATE 2/14/2024 2/14/2024 2/14/2024 2/14/2024 2/14/2024 2/14/2024 2/14/2024 2/14/2024
Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No All Results are emailed. Please provide Email address: Christian.Lull@tetratech.com REMARKS: 24hr. RUSH TAT on all samples please		Add'l Phone #: Standard <input type="checkbox"/> Backfill (only Sample Condition) Reah: YES, Slop: TAT <input checked="" type="checkbox"/> Cool Inlet Thermometer ID: #140 Correction Factor: 4.0 Observed Temp: 6.0 Corrected Temp: 2.0 Date: 3/14/24	

FORM-006 R.3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celejy.keene@cardinalabsnm.com



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February 21, 2024

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: ORIOLE STATE COM #001 FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/20/24 17:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: ESW - 1 ( 2' ) (H240840-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/21/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 73.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: ESW - 2 ( 4' ) (H240840-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/21/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 75.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: ESW - 3 ( 2' ) (H240840-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/21/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 75.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.4 % 49.1-148

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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: NSW - 1 ( 2' ) (H240840-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43		
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25		
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46		
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72		
Total BTEX	<0.300	0.300	02/21/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/21/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37		
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20		
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND						

Surrogate: 1-Chlorooctane 76.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.3 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: FS - 1 (H240840-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/21/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 74.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: FS - 2 (H240840-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/21/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 74.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: FS - 3 (H240840-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/21/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 70.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: FS - 4 (H240840-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4080	16.0	02/21/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 76.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.3 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/20/2024	Sampling Date:	02/20/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Dionica Hinojos
Project Location:	COP LEA CO. , NM		

**Sample ID: FS - 5 (H240840-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.26	113	2.00	3.43	
Toluene*	<0.050	0.050	02/21/2024	ND	2.24	112	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.21	111	2.00	3.46	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	6.47	108	6.00	3.72	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	02/21/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	212	106	200	2.37	
DRO >C10-C28*	<10.0	10.0	02/21/2024	ND	216	108	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 73.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.1 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Corco Phillips P.O. #:            ANALYSIS REQUEST

Project Manager:            Company: Peta Tech

Address:            Attn: Christen Luv

City:            State:            Zip:           

Phone #:            Fax #:           

Project #: 212C-MD-03236 Project Owner:           

Project Name: Oriole State Con # 001 State:            Zip:           

Project Location: Lea Co, N.M. Phone #:           

Sampler Name: Andres Garcia Fax #:           

FOR LAB USE ONLY	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	DATE	TIME	ANALYSIS REQUEST		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :				ACID/BASE:	OTHER :	TPH
	1	ESW-1 (2')	1			X					800	X	X	X	
	2	ESW-2 (4')	1			X					830	X	X	X	
	3	ESW-3 (2')	1			X					900	X	X	X	
	4	NSW-1 (2')	1			X					930	X	X	X	
	5	FS-1	1			X					1000	X	X	X	
	6	FS-2	1			X					1030	X	X	X	
	7	FS-3	1			X					1100	X	X	X	
	8	FS-4	1			X					1130	X	X	X	
	9	FS-5	1			X					1200	X	X	X	

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Relinquished By: Andres Garcia Date: 2024-03-08 Received By:            Date:           

Relinquished By:            Date:            Received By:            Date:           

Delivered By: (Circle One) UPS Observed Temp. °C: 30C Sample Condition:  Intact  Cool  Intact

Sampler - UPS - Bus - Other:            Corrected Temp. °C:             Yes  No  Yes  No

Checked By:            (Initials)

Turnaround Time: Standard  Rush  Bacteria (only) Sample Condition:  Yes  No  Yes  No

Thermometer ID #140 24 HR Corrected Temp. °C:           

REMARKS: Injection. Judy & Peta Tech. con - Nicholas. Page Peta Tech. con

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



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

---

February 26, 2024

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: ORIOLE STATE COM #001 FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/23/24 8:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, flowing "C" at the beginning.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/26/2024	Sampling Type:	Soil
Project Name:	ORIOLE STATE COM #001 FLOWLINE RE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03236	Sample Received By:	Shalyn Rodriguez
Project Location:	COP LEA CO. , NM		

**Sample ID: FS - 6 (1') (H240899-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/24/2024	ND	2.28	114	2.00	1.59	
Toluene*	<0.050	0.050	02/24/2024	ND	2.01	101	2.00	3.23	
Ethylbenzene*	<0.050	0.050	02/24/2024	ND	1.96	98.1	2.00	3.69	
Total Xylenes*	<0.150	0.150	02/24/2024	ND	5.53	92.2	6.00	3.65	
Total BTEX	<0.300	0.300	02/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/26/2024	ND	464	116	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/24/2024	ND	213	107	200	2.06	
DRO >C10-C28*	<10.0	10.0	02/24/2024	ND	232	116	200	5.02	
EXT DRO >C28-C36	<10.0	10.0	02/24/2024	ND					

Surrogate: 1-Chlorooctane 68.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 64.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



# **APPENDIX F Waste Manifest**



# LEA LAND, LLC SURFACE WASTE LANDFILL

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

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201392	<b>Trailer No.</b> MP M 33		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-19-2024 08:59 AM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> 17280, 17640, 18540				
<b>Lease/Job Name:</b> ORIOLE STATE 001 H API # 30-025-41612					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Jose Mendez</u>					
<b>Signature (Firma):</b> <u>[Signature]</u> <b>Date:</b> 02-19-2024 08:59 AM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		
			<b>(575) 887-4048</b>		
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <u>M Sanchez</u>		<b>Unit No:</b> IIA	<b>Date:</b> 02-19-2024	<b>Time:</b> 08:59 AM	

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



# LEA LAND, LLC SURFACE WASTE LANDFILL

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

<b>NON-HAZARDOUS WASTE MANIFEST</b>		No. 201463	Trailer No. MP M 36	
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705	
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-20-2024 12:54 PM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 22700			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT			
	<b>Generator's Representative:</b> Jacob Laird			
	<b>Name:</b> McNabb Partners			
	<b>Emergency Contact:</b> Sharron			
	<b>Emergency Contact Phone:</b> (575) 397-0050			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>NICOLA MARANO</u>			
	<b>Signature (Firma):</b> X <u>[Signature]</u>			<b>Date:</b> 02-20-2024 12:54 PM
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>		
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <u>[Signature]</u>		<b>Unit No:</b> IIA	<b>Date:</b> 02-20-2024	<b>Time:</b> 12:54 PM

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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

NON-HAZARDOUS WASTE MANIFEST			
<b>GENERATOR</b>	Company Name: ConocoPhillips	No. 201464	Trailer No. MP M 31
	Phone: (432) 688-8800	Address: 3300 N. A. St. Bldg 6, #100 Midland, TX 79705	Disposal Date: 02-20-2024 12:58 PM
	Name Or Description Of Waste Shipped: <input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt		
	Weight (lbs): 18000		
	Lease/Job Name: ORIOLE STATE # 001 H - BU PROJECT		
Generator's Representative: Jacob Laird			
<b>TRANSPORTER</b>	Name: McNabb Partners		
	Emergency Contact: Sharron		
	Emergency Contact Phone: (575) 397-0050		
	Transporter: Acknowledgment of Delivery of Material Printed/Typed Name (Impreso/Mecanografico): <u>Alvaro Tercero</u> Signature (Firma): X <u>[Signature]</u> Date: 02-20-2024 12:58 PM		
<b>DISPOSAL FACILITY</b>	Lea Land, LLC	Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM	(575) 887-4048
	Permit No: NM-1-0035-New Mexico	Comments:	
	Disposal Facility's Certification: I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.		
	Authorized Signature: <u>[Signature]</u>	Unit No: IIA	Date: 02-20-2024

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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<b>NON-HAZARDOUS WASTE MANIFEST</b>		No. 201483	Trailer No. MP M 31		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips  <b>Phone:</b> (432) 688-8800		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		<b>Disposal Date:</b> 02-21-2024 09:00 AM
	<b>Name Or Description Of Waste Shipped:</b> <input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> 24440, 24780, 25060, 25140				
	<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT				
	<b>Generator's Representative:</b> Jacob Laird				
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners  <b>Emergency Contact:</b> Sharron  <b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>  <b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Alvaro Tercero</u>				
	<b>Signature (Firma):</b> X <u>[Signature]</u> <b>Date:</b> 02-21-2024 09:00 AM				
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM		(575) 887-4048
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
	<b>Authorized Signature:</b> <u>[Signature]</u>		<b>Unit No:</b> IIA	<b>Date:</b> 02-21-2024	<b>Time:</b> 09:00 AM

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**LEA LAND**

**LEA LAND, LLC SURFACE WASTE LANDFILL**

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

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201528	<b>Trailer No.</b> MP M 31		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-22-2024 09:19 AM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> 33680, 34420, 34280,				
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Alvaro Tercero</u>					
<b>Signature (Firma):</b> X <u>Alvaro Tercero</u> <b>Date:</b> 02-22-2024 09:19 AM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		
			<b>(575) 887-4048</b>		
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <u>M. Sanchez</u>		<b>Unit No:</b> 11A	<b>Date:</b> 02-22-2024	<b>Time:</b> 09:19 AM	

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201530	<b>Trailer No.</b> MP M 32		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-22-2024 09:24 AM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> <i>27820, 26780, 121240 TO</i>				
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H BU PROJECT					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <i>Andrew Richards</i>					
<b>Signature (Firma):</b> <i>[Signature]</i> <b>Date:</b> 02-22-2024 09:24 AM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>		
	<b>Comments:</b>				
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <i>[Signature]</i>		<b>Unit No:</b> IIA	<b>Date:</b> 02-22-2024	<b>Time:</b> 09:24 AM	

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201529	<b>Trailer No.</b> MP M35		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-22-2024 09:22 AM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> <i>25340, 26620, 26320,</i>				
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <i>Victoria Hardy</i>					
<b>Signature (Firma):</b> X <i>Victoria Hardy</i> <b>Date:</b> 02-22-2024 09:22 AM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		
			<b>(575) 887-4048</b>		
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <i>[Signature]</i>			<b>Unit No:</b> IIA	<b>Date:</b> 02-22-2024	
			<b>Time:</b> 09:22 AM		

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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<b>NON-HAZARDOUS WASTE MANIFEST</b>		No. 201554	Trailer No. MP M 31	
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705	
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-22-2024 02:39 PM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 20780			
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT				
<b>Generator's Representative:</b> Jacob Laird				
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners			
	<b>Emergency Contact:</b> Sharron			
	<b>Emergency Contact Phone:</b> (575) 397-0050			
<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Albino Torres</u>				
<b>Signature (Firma):</b> X <u>[Signature]</u> <b>Date:</b> 02-22-2024 02:39 PM				
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>	
	<b>Comments:</b>			
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.			
<b>Authorized Signature:</b> <u>[Signature]</u>		<b>Unit No:</b> IIA	<b>Date:</b> 02-22-2024	<b>Time:</b> 02:39 PM

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201553	<b>Trailer No.</b> MP M 35		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-22-2024 02:24 PM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> 16840				
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
<b>Transporter: Acknowledgment of Delivery of Material</b>					
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Victoria Hardy</u>					
<b>Signature (Firma):</b> X <u>Victoria Hardy</u> <b>Date:</b> 02-22-2024 02:24 PM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		
			<b>(575) 887-4048</b>		
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b>		<b>Unit No:</b> IIA	<b>Date:</b> 02-22-2024	<b>Time:</b> 02:24 PM	

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LEA LAND

# LEA LAND, LLC SURFACE WASTE LANDFILL

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

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201575	<b>Trailer No.</b> MP M 35		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-23-2024 08:36 AM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> <i>25680, 25880, 25600</i>				
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <i>Victoria Hardy</i>					
<b>Signature (Firma):</b> X <i>Victoria Hardy</i> <b>Date:</b> 02-23-2024 08:36 AM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>		
	<b>Comments:</b>				
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <i>M Sanchez</i>		<b>Unit No:</b> 11A	<b>Date:</b> 02-23-2024	<b>Time:</b> 08:36 AM	

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201576	<b>Trailer No.</b> MP M 32		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-23-2024 08:39 AM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> 34620, 34660, 34220				
<b>Lease/Job Name:</b> ORIOLE STATE # 001 - BU PROJECT					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> Andrew Richards					
<b>Signature (Firma):</b> X <i>[Signature]</i> <b>Date:</b> 02-23-2024 08:39 AM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		
			<b>(575) 887-4048</b>		
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <i>[Signature]</i>		<b>Unit No:</b> IIA	<b>Date:</b> 02-23-2024	<b>Time:</b> 08:39 AM	

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



# LEA LAND, LLC SURFACE WASTE LANDFILL

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

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 201587	<b>Trailer No.</b> MP M 38	
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips	<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		<b>Disposal Date:</b> 02-23-2024 09:02 AM
	<b>Phone:</b> (432) 688-8800			
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 28240, 26480, 26000			
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT				
<b>Generator's Representative:</b> Jacob Laird				
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners			
	<b>Emergency Contact:</b> Sharron			
	<b>Emergency Contact Phone:</b> (575) 397-0050			
	<b>Transporter: Acknowledgment of Delivery of Material</b>			
<b>Printed/Typed Name (Impreso/Mecanografico):</b> Joel Van Buren				
<b>Signature (Firma):</b> X  <b>Date:</b> 02-23-2024 09:02 AM				
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>	<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		<b>(575) 887-4048</b>
	<b>Permit No:</b> NM-1-0035-New Mexico	<b>Comments:</b>		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.			
	<b>Authorized Signature:</b>	<b>Unit No:</b> IIA	<b>Date:</b> 02-23-2024	<b>Time:</b> 09:02 AM

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



# LEA LAND, LLC SURFACE WASTE LANDFILL

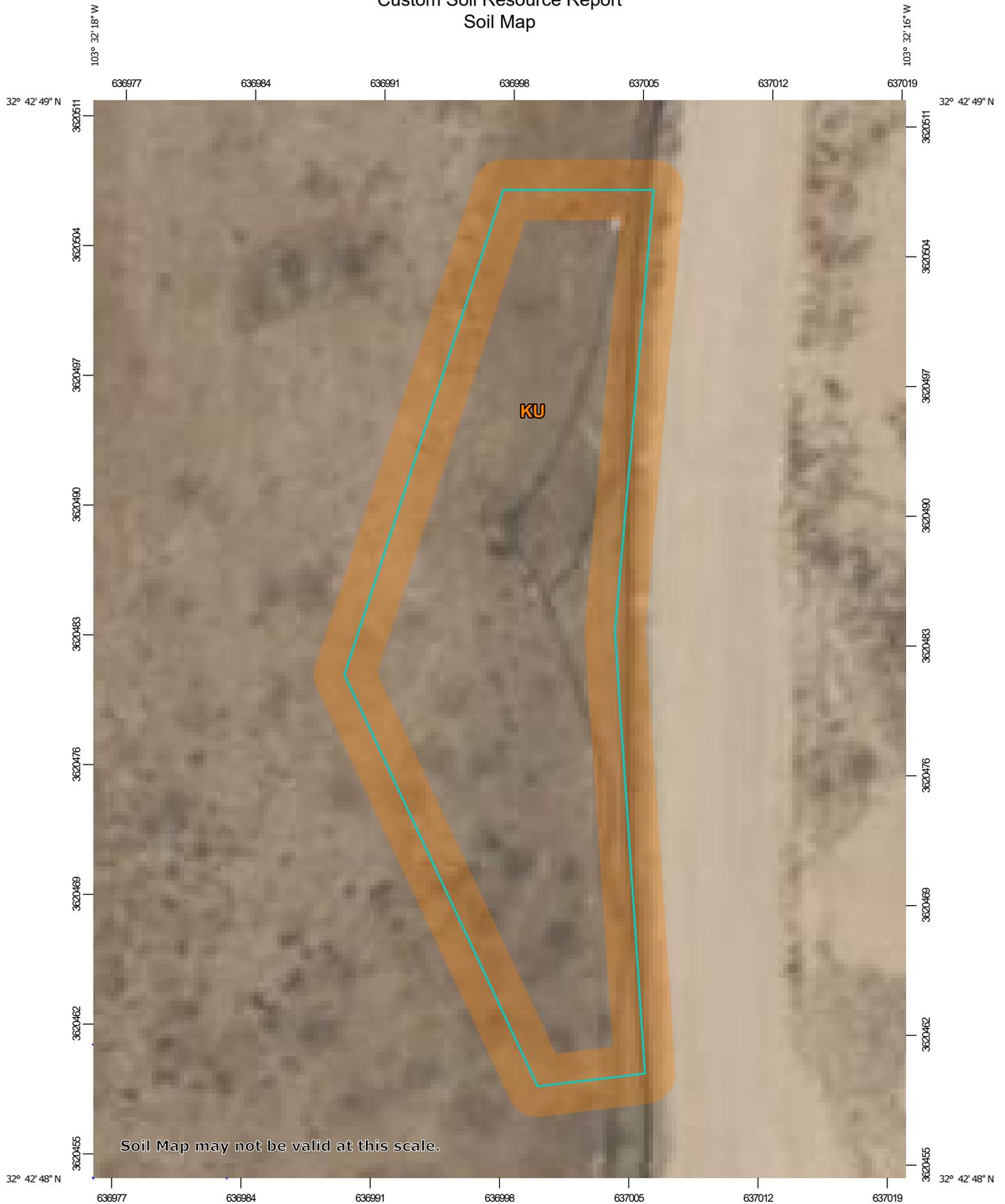
MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		No. 201586	Trailer No. MP M 37		
<b>GENERATOR</b>	<b>Company Name:</b> ConocoPhillips		<b>Address:</b> 3300 N. A. St. Bldg 6, #100 Midland, TX 79705		
	<b>Phone:</b> (432) 688-8800		<b>Disposal Date:</b> 02-23-2024 09:01 AM		
	<b>Name Or Description Of Waste Shipped:</b>				
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt				
	<b>Weight (lbs):</b> 28540, 27440, 28660				
<b>Lease/Job Name:</b> ORIOLE STATE # 001 H - BU PROJECT					
<b>Generator's Representative:</b> Jacob Laird					
<b>TRANSPORTER</b>	<b>Name:</b> McNabb Partners				
	<b>Emergency Contact:</b> Sharron				
	<b>Emergency Contact Phone:</b> (575) 397-0050				
	<b>Transporter: Acknowledgment of Delivery of Material</b>				
<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Johny Harte</u>					
<b>Signature (Firma):</b> X <u>[Signature]</u> <b>Date:</b> 02-23-2024 09:01 AM					
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM		
	Permit No: NM-1-0035-New Mexico		Comments:		
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
	<b>Authorized Signature:</b> <u>[Signature]</u>		<b>Unit No:</b> IIA	<b>Date:</b> 02-23-2024	<b>Time:</b> 09:01 AM

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

## **APPENDIX F Seed Mixture Details**

### Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.

Map Scale: 1:284 if printed on A portrait (8.5" x 11") sheet.

0 4 8 16 24 Meters  
0 10 20 40 60 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

Custom Soil Resource Report

**MAP LEGEND**

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

**Background**

 Aerial Photography

**MAP INFORMATION**

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico  
 Survey Area Data: Version 20, Sep 6, 2023

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

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

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

## Custom Soil Resource Report

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0.1	100.0%
<b>Totals for Area of Interest</b>		<b>0.1</b>	<b>100.0%</b>

## Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

## Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Custom Soil Resource Report

**Lea County, New Mexico****KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes****Map Unit Setting**

*National map unit symbol:* 2tw46  
*Elevation:* 2,500 to 4,800 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 57 to 63 degrees F  
*Frost-free period:* 180 to 220 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Kimbrough and similar soils:* 45 percent  
*Lea and similar soils:* 25 percent  
*Minor components:* 30 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Kimbrough****Setting**

*Landform:* Playa rims, plains  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Concave, linear  
*Parent material:* Loamy eolian deposits derived from sedimentary rock

**Typical profile**

*A - 0 to 3 inches:* gravelly loam  
*Bw - 3 to 10 inches:* loam  
*Bkkm1 - 10 to 16 inches:* cemented material  
*Bkkm2 - 16 to 80 inches:* cemented material

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 4 to 18 inches to petrocalcic  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.01 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 95 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 1.0  
*Available water supply, 0 to 60 inches:* Very low (about 1.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* D  
*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ  
*Hydric soil rating:* No

## Custom Soil Resource Report

**Description of Lea****Setting***Landform:* Plains*Down-slope shape:* Convex*Across-slope shape:* Linear*Parent material:* Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age**Typical profile***A - 0 to 10 inches:* loam*Bk - 10 to 18 inches:* loam*Bkk - 18 to 26 inches:* gravelly fine sandy loam*Bkkm - 26 to 80 inches:* cemented material**Properties and qualities***Slope:* 0 to 3 percent*Depth to restrictive feature:* 22 to 30 inches to petrocalcic*Drainage class:* Well drained*Runoff class:* High*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)*Depth to water table:* More than 80 inches*Frequency of flooding:* None*Frequency of ponding:* None*Calcium carbonate, maximum content:* 90 percent*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)*Sodium adsorption ratio, maximum:* 3.0*Available water supply, 0 to 60 inches:* Very low (about 2.9 inches)**Interpretive groups***Land capability classification (irrigated):* None specified*Land capability classification (nonirrigated):* 7s*Hydrologic Soil Group:* D*Ecological site:* R077DY047TX - Sandy Loam 12-17" PZ*Hydric soil rating:* No**Minor Components****Kenhill***Percent of map unit:* 12 percent*Landform:* Plains*Down-slope shape:* Linear*Across-slope shape:* Linear*Ecological site:* R077DY038TX - Clay Loam 12-17" PZ*Hydric soil rating:* No**Douro***Percent of map unit:* 12 percent*Landform:* Plains*Down-slope shape:* Linear*Across-slope shape:* Linear*Ecological site:* R077DY047TX - Sandy Loam 12-17" PZ*Other vegetative classification:* Unnamed (G077DH000TX)*Hydric soil rating:* No

Custom Soil Resource Report

**Spraberry**

*Percent of map unit:* 6 percent

*Landform:* Playa rims, plains

*Down-slope shape:* Convex, linear

*Across-slope shape:* Linear

*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ

*Other vegetative classification:* Unnamed (G077DH000TX)

*Hydric soil rating:* No

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- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053580](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580)
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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

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# SLO Seed Mix

# SM Series

## 1 REVEGETATION PLANS

The following Revegetation Plans were developed for revegetation of sites in southeastern New Mexico. To determine which revegetation plan is appropriate follow procedures in the section titled Determining the Revegetation Plan.

Revegetation Plans contain seed mixtures, as well as seed bed preparation and planting requirements. The detailed instructions for seedbed preparation and planting can be found in the section Revegetation Techniques.

**Table 3 - Revegetation Plans, Codes, and Soil Types for Southeastern New Mexico**

REVEGETATION PLANS	CODE	SOIL TEXTURES
<b>Clay</b>	C	Clay, Silty Clay, Stony Silty Clay, Clay Loam, Silty Clay Loam (including saline and sodic Clay soils)
<b>Loam</b>	L	Silty Loam, Cobbly Silt Loam, Stony Silt Loam, Silt, Loam, Sandy, Clay Loam
<b>Sandy Loam</b>	SL	Very Fine Sandy Loam, Fine Sandy Loam, Cobbly Fine Sandy Loam, Sandy Loam, Cobbly Sandy Loam, Gravelly Fine Sandy Loam, Very Gravelly Fine Sand Loam, Stony Fine Sandy Loam, Stony Sandy Loam
<b>Shallow</b>	SH	Rocky Loam, Cobbly Loam
<b>Course</b>	CS	Gravelly Loam, very Gravelly Loam, Gravelly Sandy Loam, Very Gravelly Sandy Loam, Stony Loam, Stony Sandy Loam
<b>Sandy</b>	S	Loamy Fine Sand, Loam Sand, Very Gravelly Loamy Fine Sand
<b>Blow Sand</b>	BS	Fine Sand, Sand, Coarse Sand
<b>Mountain Meadow</b>	MM	Clay, Loam
<b>Mountain Upland</b>	MU	Clay Loam, Loam



**NMSLO Seed Mix****Coarse (CS)****COARSE (CS) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
<b>Grasses:</b>			
Sand bluestem	VNS, Southern	2.0	F
Sideoats grama	Vaughn, El Reno	2.0	F
Blue grama	Hachita, Lovington	1.5	D
Little bluestem	Cimmaron, Pastura	1.5	F
Sand dropseed	VNS, Southern	1.0	S
Plains bristlegrass	VNS, Southern	0.75	D
<b>Forbs:</b>			
Parry penstemon	VNS, Southern	1.0	D
Desert globemallow	VNS, Southern	1.0	D
White prairieclover	Kaneb, VNS	0.5	D
Sulfur buckwheat	VNS, Southern	0.5	D
<b>Shrubs:</b>			
Fourwing saltbush	VNS, Southern	1.0	D
Skunkbush sumac	VNS, Southern	1.0	D
Common winterfat	VNS, Southern	1.0	F
Fringed sagewort	VNS, Southern	0.5	F
		<b>Total PLS/acre</b>	<b>18.25</b>

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

- VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.
- Double above seed rates for broadcast or hydroseeding.
- If Parry is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow.
- If one species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.



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

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

QUESTIONS

Action 321127

**QUESTIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2326829702
Incident Name	NAPP2326829702 ORIOLE STATE 001H @ 0
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received
Incident Facility	[fAPP2203830839] Oriole St 1H RT BATT

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	ORIOLE STATE 001H
Date Release Discovered	09/06/2023
Surface Owner	State

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water 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

<b>Nature and Volume of Release</b>	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Produced Water   Released: 2 BBL   Recovered: 0 BBL   Lost: 2 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
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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 Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS, Page 2

Action 321127

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>More info needed to determine if this will be treated as a "gas only" report.</b>
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	Not answered.

*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: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 03/07/2024
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**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

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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

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**Santa Fe, NM 87505**

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**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
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (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	None
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

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

Requesting a remediation plan approval with this submission	Yes
<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)	8400
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	15.5
GRO+DRO (EPA SW-846 Method 8015M)	15.5
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	02/13/2024
On what date will (or did) the final sampling or liner inspection occur	02/13/2024
On what date will (or was) the remediation complete(d)	02/23/2024
What is the estimated surface area (in square feet) that will be reclaimed	2830
What is the estimated volume (in cubic yards) that will be reclaimed	300
What is the estimated surface area (in square feet) that will be remediated	2830
What is the estimated volume (in cubic yards) that will be remediated	300

*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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 1625 N. French Dr., Hobbs, NM 88240  
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QUESTIONS, Page 4

Action 321127

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

**Remediation Plan (continued)**

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

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

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	Oriole St 1H RT BATT [fAPP2203830839]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Yes
Which OCD approved facility will be used for <b>on-site</b> disposal	Oriole St 1H RT BATT [fAPP2203830839]
<b>OR</b> which OCD approved well (API) will be used for <b>on-site</b> disposal	Not answered.
(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

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

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

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 03/07/2024
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 321127

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Deferral Requests Only</b>	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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Action 321127

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>313167</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>02/14/2024</b>
What was the (estimated) number of samples that were to be gathered	<b>16</b>
What was the sampling surface area in square feet	<b>2319</b>

**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	<b>Yes</b>
Have the lateral and vertical extents of contamination been fully delineated	<b>Yes</b>
Was this release entirely contained within a lined containment area	<b>No</b>
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	<b>Yes</b>
What was the total surface area (in square feet) remediated	<b>2830</b>
What was the total volume (cubic yards) remediated	<b>300</b>
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	<b>Yes</b>
What was the total surface area (in square feet) reclaimed	<b>2830</b>
What was the total volume (in cubic yards) reclaimed	<b>300</b>
Summarize any additional remediation activities not included by answers (above)	<b>N/A</b>

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

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

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 03/07/2024
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QUESTIONS, Page 7

Action 321127

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

**Reclamation Report**

*Only answer the questions in this group if all reclamation steps have been completed.*

Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	2830
What was the total volume of replacement material (in cubic yards) for this site	300

*Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.*

Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeded commence(d)	02/23/2024

Summarize any additional reclamation activities not included by answers (above)	"In summary, in accordance with 19.15.29.13 NMAC, all areas disturbed by the remediation have been reclaimed. In accordance with 19.15.29.12 NMAC, the reclaimed area contains non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by SM4500Cl-B in the upper 4' feet. One (1) representative 5-point composite sample was collected from the backfill material used for the reclamation of the project site. Soil backfill composite sampling results are summarized in Table 3. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. Photographs from the backfilled areas showing that the area is back, as nearly as practical, to the original condition are provided in Appendix D. The photographs include pictures of the top layer, which is one foot of suitable material to establish vegetation at the site. Once acceptable confirmation sample results were received, the excavation was backfilled with clean material to pre-release grade. The backfilled areas in the pasture were seeded to aid in revegetation. Based on the soils of the site (predominantly KU - Kimbrough-Lea complex), the NMSLO Coarse Sites (CS) Seed Mixture was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture was spread by hand-held broadcaster and raked."
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*The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeded plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.*

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

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 03/07/2024
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QUESTIONS, Page 8

Action 321127

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Revegetation Report</b>	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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CONDITIONS  
 Action 321127

**CONDITIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 321127
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**CONDITIONS**

Created By	Condition	Condition Date
bhall	Remediation and reclamation report approved. A revegetation report will need to be submitted but be advised it will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, are complete. Areas not reasonably needed for production or drilling activities will still need to be revegetated as early as practicable. All revegetation activities will need to be documented and included in the revegetation report.	3/8/2024
bhall	The revegetation report will need to include: An executive summary of the revegetation activities including: seed mix,,method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled site map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	3/8/2024
bhall	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	3/8/2024