



June 16, 2023

District Supervisor  
Oil Conservation Division, District 2  
506 W. Texas Ave.  
Artesia, New Mexico 88210

**Re: Release Characterization and Remediation Work Plan  
ConocoPhillips-Heritage Concho  
Talco 9-26-35 Federal 003H Flowline Release  
Unit Letter G, Section 09, Township 26 South, Range 35 East  
Lea County, New Mexico  
DOR: 3/28/2023  
Incident ID# NAPP2308946629**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred from a flowline associated with the Talco 9-26 35 Federal 003H (API 30-025-43458). The release footprint is located in Public Land Survey System (PLSS) Unit Letter G, Section 09, Township 26 South, Range 35 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.057784°, -103.371235°, as shown on Figures 1 and 2.

## BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the release occurred as the result of flowline corrosion and was discovered on March 28, 2023. The release of approximately 14.2 barrels (bbls) of crude oil and 33.2 bbls of produced water were reported. The extent of the release was identified based on information provided by ConocoPhillips representatives, and a review of photographs and observations made during a site visit at the release area on March 31, 2023. The release extent was described in the spill calculator as equaling 1,239 square feet. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on March 30, 2023 and subsequently assigned the release Incident ID NAPP2308946629.

## LAND OWNERSHIP

The Site is located on land owned by the Bureau of Land Management (BLM). Following the release, Tetra Tech requested BLM clearance to remediate via email. The BLM cleared the Site for remediation activities via email, following a desktop review conducted by Shelly Taylor of the BLM. The correspondence is included in Appendix B.

## INITIAL RESPONSE

In accordance with 19.15.29.8. B. (4) NMAC that states "the responsible party may commence remediation immediately after discovery of a release", COP elected to begin remediation of the impacted area footprint in April 2023. The NAPP2308946629 release extent is located in pastureland south of the developed well pad.

Initial response remedial actions were performed at the release site on April 6, 2023. Visibly stained areas were partially excavated to depths at 1 to 3 feet below ground surface (bgs) to remove impacted materials. Approximately 60 cubic yards of contaminated soil were removed and sent to R360 Halfway Facility in

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Hobbs, New Mexico for disposal. The initial response areas are indicated in Figure 3. Photographic documentation of the initial response action is found in Appendix C. Waste manifests from the initial response are included in Appendix D.

## 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.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within ½ mile (800 meters) of the Site. There is one (1) water well within 3.1 miles (5,000 meters) of the site with a depth to groundwater of 230 feet below ground surface (bgs).

As the available water level information was from a well further than ½ mile away from the Site, COP elected to drill a boring for groundwater verification. On May 24, 2023, a licensed drilling subcontractor was onsite to drill a depth-to-water (DTW) borehole to 55 feet bgs. The borehole was located on the developed pad approximately 460-feet northwest. The borehole was dry upon completion, and soils were dry from surface to total depth. The depth to groundwater in the area was thus verified as greater than 55 feet bgs. The borehole was plugged with 3/8" bentonite chips. The borehole coordinates are 32.058777°, -103.370256°, and the boring location is indicated on Figure 4B. The site characterization data, along with the boring log, is included in Appendix E.

## 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.

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	10,000 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

## INITIAL SITE ASSESSMENT ACTIVITIES AND RESULTS

Tetra Tech personnel were onsite to delineate and sample the release area on April 19, 2023. A total of eleven (11) soil borings (HA-1 through HA-11) were installed using a hand auger within and around the release area to evaluate the vertical and horizontal extent of the release. HA-1 through HA-4 were installed within the release extent to assess the vertical extent of impact. The remainder of the borings were installed

around the perimeter of the release footprint to delineate the horizontal extent of impacted soil. The boring locations are shown on Figure 4A.

A total of twenty-nine (29) samples were collected from the sample locations and transferred under chain of custody and analyzed within appropriate holding times by Cardinal Laboratories (Cardinal). The soil samples were analyzed for TPH via Method 8015 Modified, chloride via Method SM4500Cl-B, and BTEX via Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix F.

Results from the April 2023 soil sampling event are summarized in Table 1. Analytical results associated with boring location HA-2, HA-3 and HA-4 exceeded the RRALs for TPH in soils to depths of 8, 4 and 4 feet below surrounding grade, respectively. Additionally, results associated with HA-1, HA-2, HA-3 and HA-4 exceeded chloride and/or TPH reclamation requirements for soils above 4 feet bgs. All other analytical results from the April 2023 sampling were below Site RRALs and reclamation requirements for soils above 4 feet bgs. While horizontal delineation of the release area was successful, vertical delineation was not achieved during the April 2023 sampling event due to depth limitations associated with using a hand auger.

### **ADDITIONAL SITE ASSESSMENT ACTIVITIES AND RESULTS**

Tetra Tech personnel returned to the Site to complete vertical delineation of the release area on May 25, 2023. One trench (T-1) was advanced within the release footprint at the previously installed HA-2 boring location to obtain soil samples from a greater depth. T-1 was advanced to a depth of 14 feet below surrounding grade. The trench location is shown on Figure 4A.

A total of five (5) samples were collected from the trench location and transferred under chain of custody and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for TPH via Method 8015 Modified, chloride via Method SM4500Cl-B, and BTEX via Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix F.

Results from the May 2023 soil sampling event are summarized in Table 1. Analytical results associated with the sampled intervals from trench location T-1 were below RRALs and reclamation requirements for TPH, BTEX and chloride. Thus, following the May 2023 additional assessment activities, the release is considered fully delineated.

### **REMEDIATION WORK PLAN**

Based on the analytical results, ConocoPhillips proposes to remove the remaining impacted material as shown on Figure 5. Impacted soils will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum depth of 8 feet below pre-release grade or until a representative sample from the walls and bottom of the excavation is below the applicable RRALs. Any area containing pressurized lines will be hand-dug to the proposed depth shown on Figure 5 or the maximum extent practicable; heavy equipment will come no more than 4 feet from any pressurized lines. The estimated volume of material to be remediated is approximately 406 cubic yards. Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility.

In accordance with 19.15.29.12(D)(1)(c) NMAC, confirmation floor and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. Prior to confirmation sampling the NMOCD district office will be notified in accordance with Subsection D of 19.15.29.12 NMAC.

### **CONFIRMATION SAMPLING PLAN**

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 6. Six (6) confirmation floor samples and five (5) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses a surface area of approximately 1,670 square feet.

Release Characterization and Remediation Work Plan  
June 16, 2023

ConocoPhillips

These confirmation sidewall and floor samples will be representative of no more than approximately 400 square feet of excavated area. Confirmation samples will be sent to an accredited analytical laboratory for analysis of chloride, TPH, and BTEX.

#### SITE RECLAMATION AND RESTORATION PLAN

Once acceptable confirmation sample results are received, the excavation will be backfilled with clean material to pre-release grade. The off-pad, pasture backfilled areas will be seeded to aid in revegetation. Based on the location of the Site, the BLM seed mixture for LPC Sand/Shinnery Sites will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the BLM 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 BLM seed mixture details and corresponding pounds pure live seed per acre are included in Appendix G.

#### CONCLUSION

Remediation activities at the Site are proposed to begin within 120 days of NMOCD plan approval. Upon completion of the proposed work, a final closure report detailing the remediation activities and the results of the confirmation sampling will be submitted to NMOCD.

If you have any questions concerning the soil assessment or the proposed remediation activities for the Site, please call me at (512) 560-9064 or Christian at (512) 338-2861.

Sincerely,

**Tetra Tech, Inc.**



Nicholas M. Poole  
Project Lead



Christian M. Llull, P.G.  
Program Manager

cc:  
Mr. Jacob Laird, GPBU - ConocoPhillips



## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Site Location/Topographic Map
- Figure 3 – Approximate Release Extent and Initial Response
- Figure 4A – Site Assessment
- Figure 4B – Site Assessment (DTW Boring)
- Figure 5 – Proposed Remediation Extent
- Figure 6 – Confirmation Sampling Plan

### Tables:

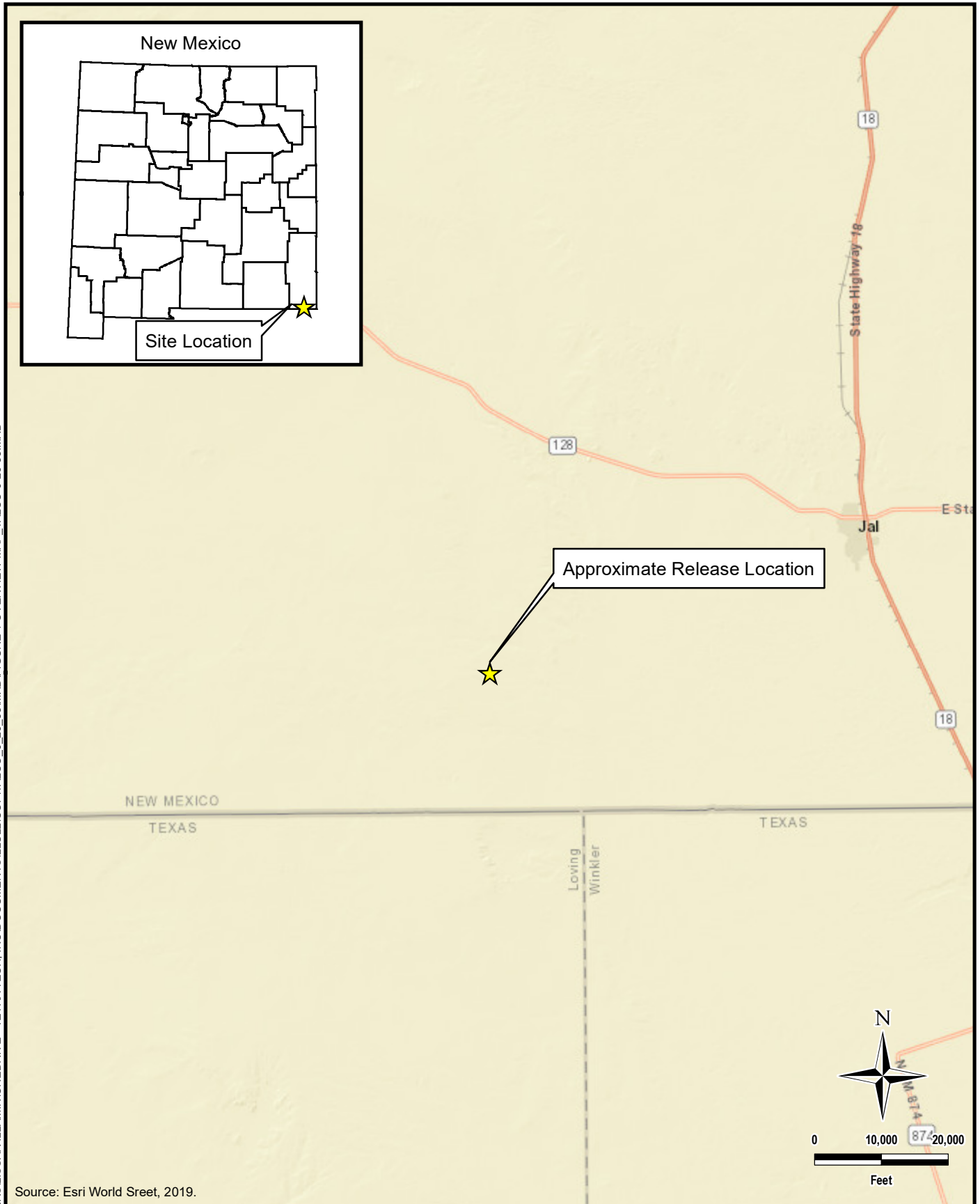
- Table 1 – Summary of Analytical Results – Soil Assessment

### Appendices:

- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence
- Appendix C – Photographic Documentation
- Appendix D – Initial Response Waste Manifests
- Appendix E – Site Characterization
- Appendix F – Laboratory Analytical Data
- Appendix G – Seed Mixture Details

## **FIGURES**

DOCUMENT PATH: C:\USERS\LISSA.VILLAMONEDRIVE - TETRA TECH, INC\DOCUMENTS\ILLUSTRATIONS\TALCO 9-26 35MXD\FIGURE 1 OVERVIEW MAP\_TALCO 9-26 35.MXD



Source: Esri World Sreet, 2019.



**TETRA TECH**

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**CONOCOPHILLIPS**

NAPP2308946629  
(32.057784°, -103.371235°)  
LEA COUNTY, NEW MEXICO

**TALCO 9-26 35 FEDERAL 003H FLOWLINE RELEASE  
OVERVIEW MAP**

PROJECT NO.: 212C-MD-03073

DATE: APRIL 26, 2023

DESIGNED BY: LMV

Figure No.

**1**

DOCUMENT PATH: C:\USERS\LISSA.VILLAMONEDRIVE - TETRA TECH\INC\DOCUMENTS\ILLU\COPTALCO\_9\_26\_35.MXD\FIGURE 2 TOPO MAP TALCO 9-26-35.MXD

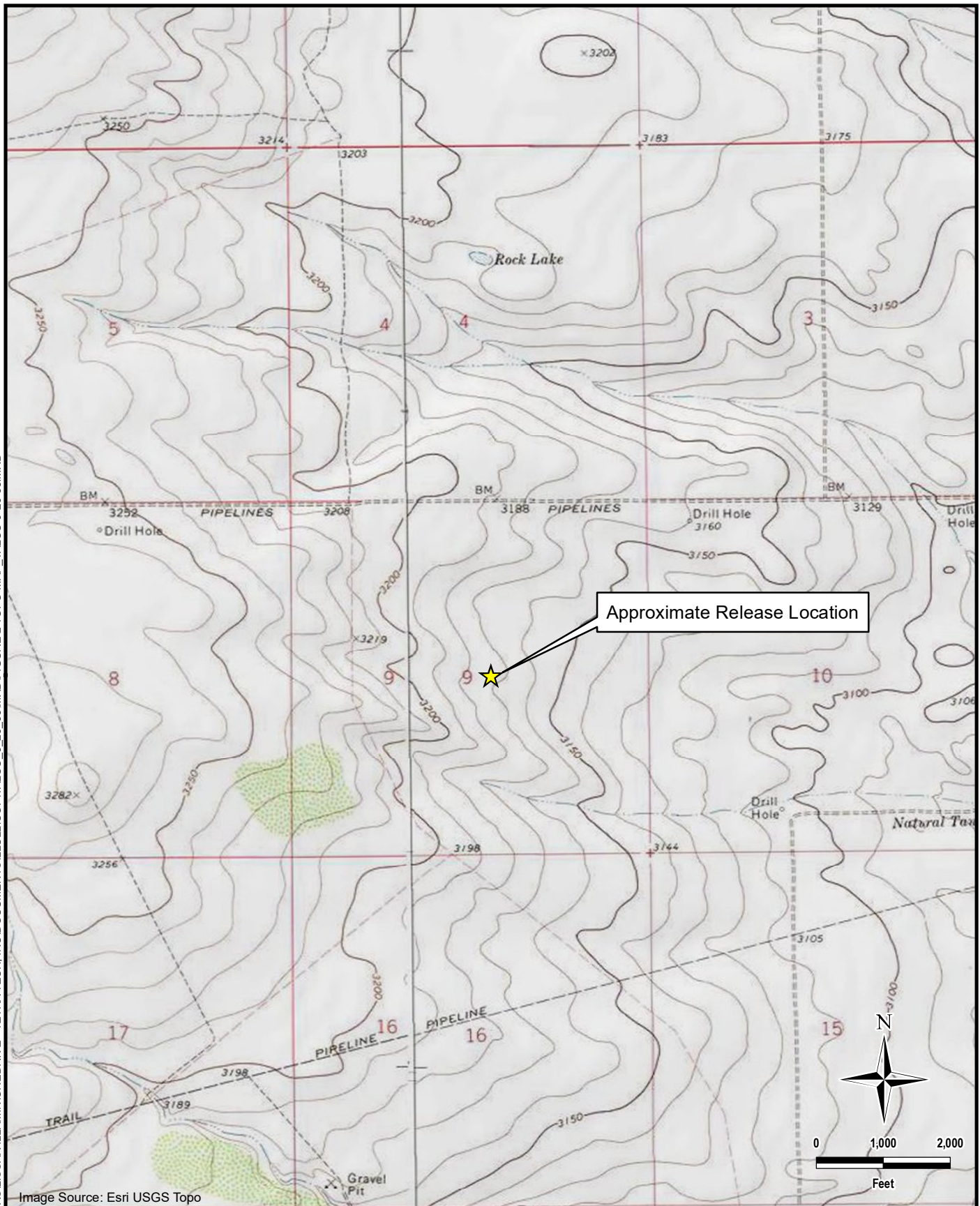


Image Source: Esri USGS Topo

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**CONOCOPHILLIPS**

NAPP2308946629  
(32.057784°, -103.371235°)  
LEA COUNTY, NEW MEXICO

**TALCO 9-26 35 FEDERAL 003H FLOWLINE RELEASE  
TOPOGRAPHIC MAP**

PROJECT NO.: 212C-MD-03073

DATE: APRIL 26, 2023

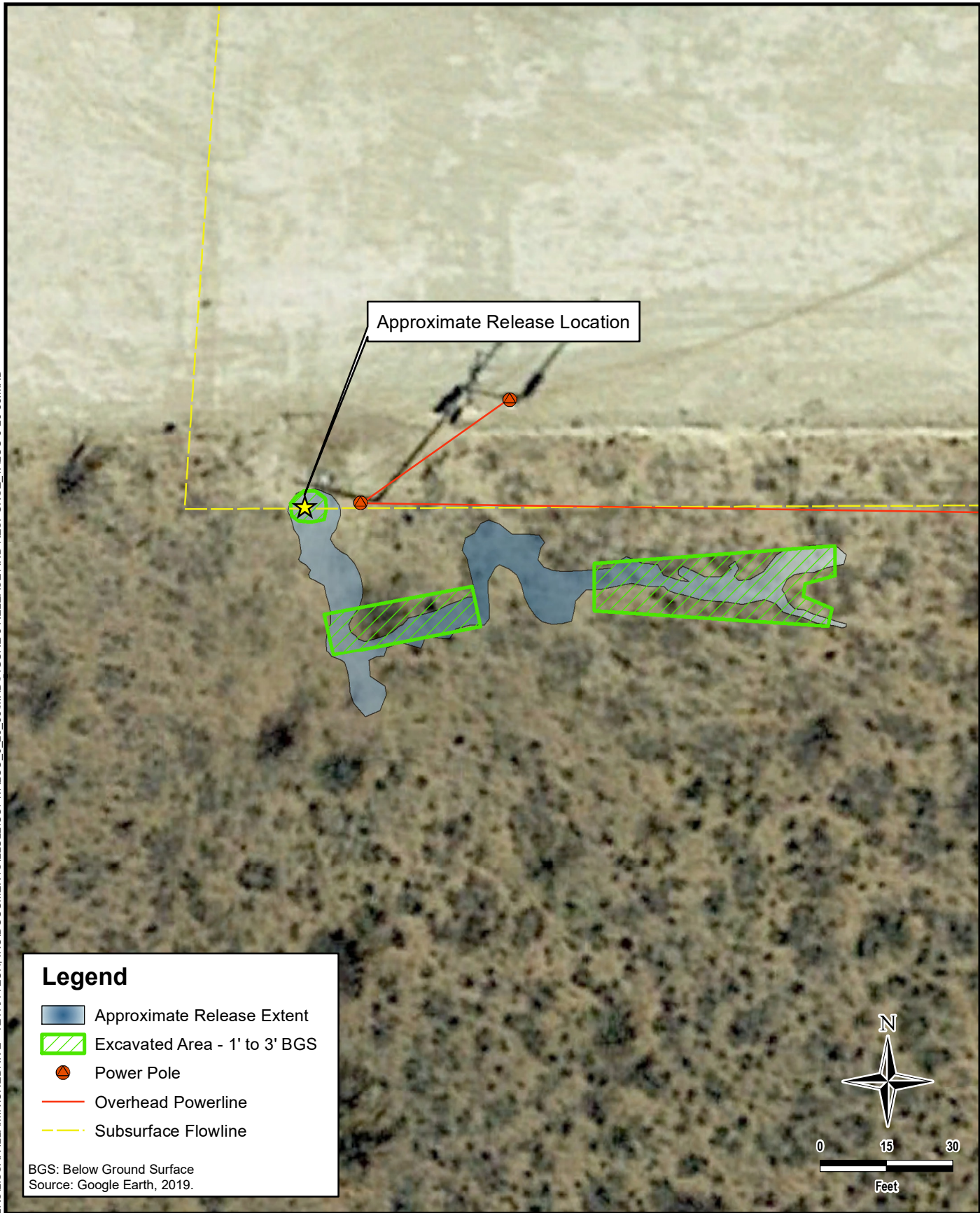
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Figure No.

**2**



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**CONOCOPHILLIPS**

NAPP2308946629  
(32.057784°, -103.371235°)  
LEA COUNTY, NEW MEXICO

**TALCO 9-26 35 FEDERAL 003H FLOWLINE RELEASE  
APPROXIMATE RELEASE EXTENT AND INITIAL RESPONSE**

PROJECT NO.: 212C-MD-03073

DATE: APRIL 27, 2023

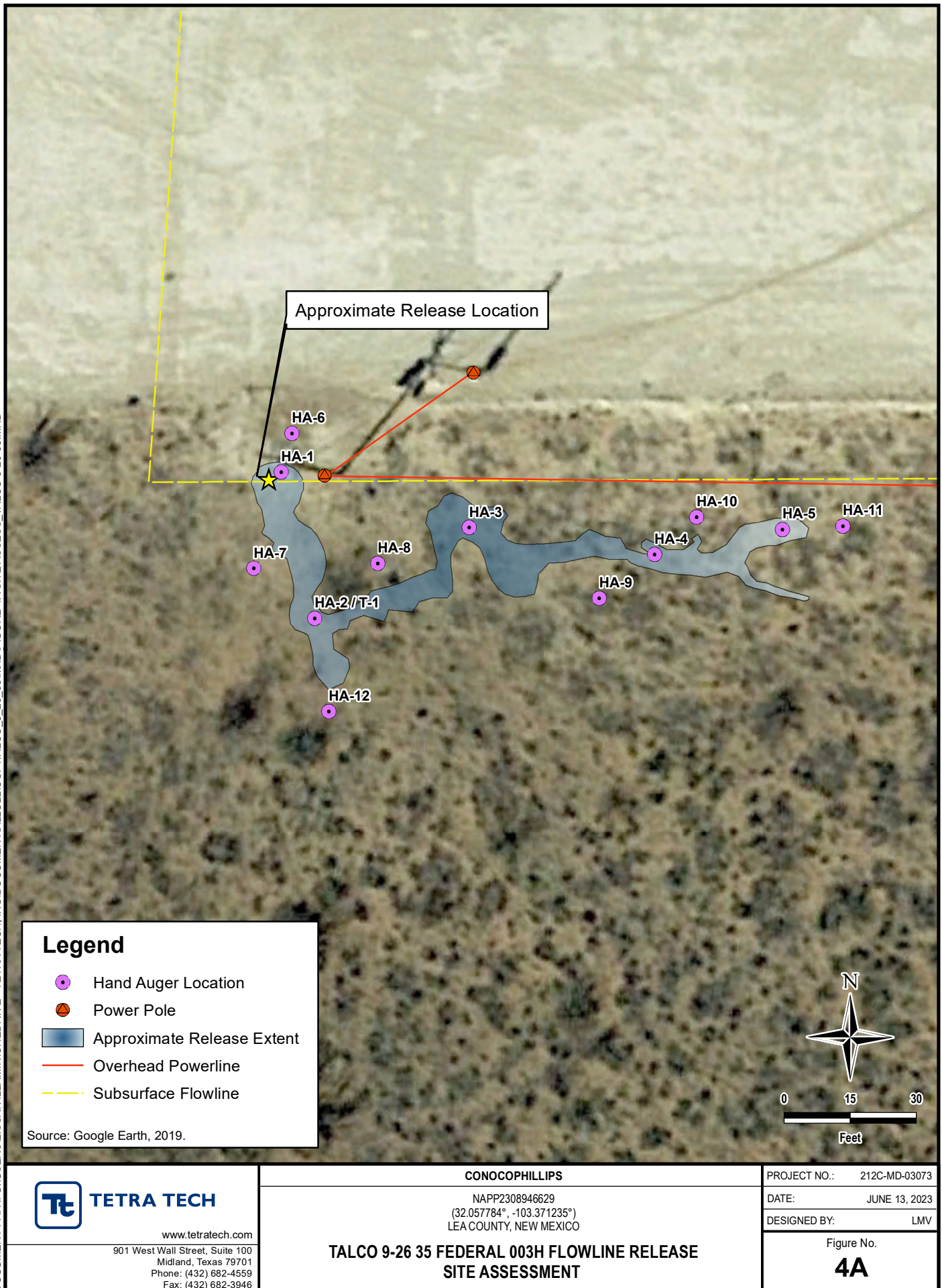
DESIGNED BY: LMV

Figure No.

**3**



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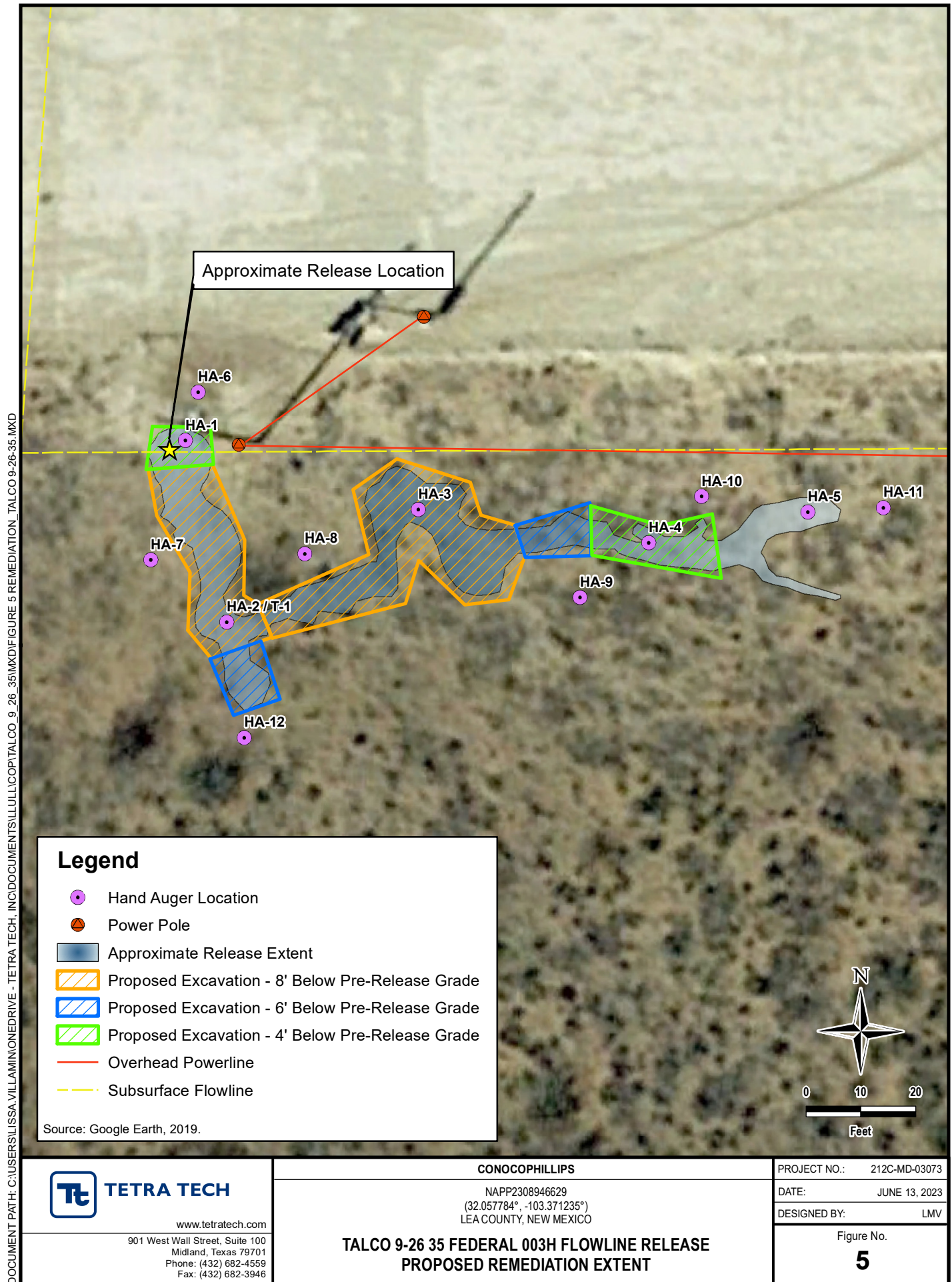




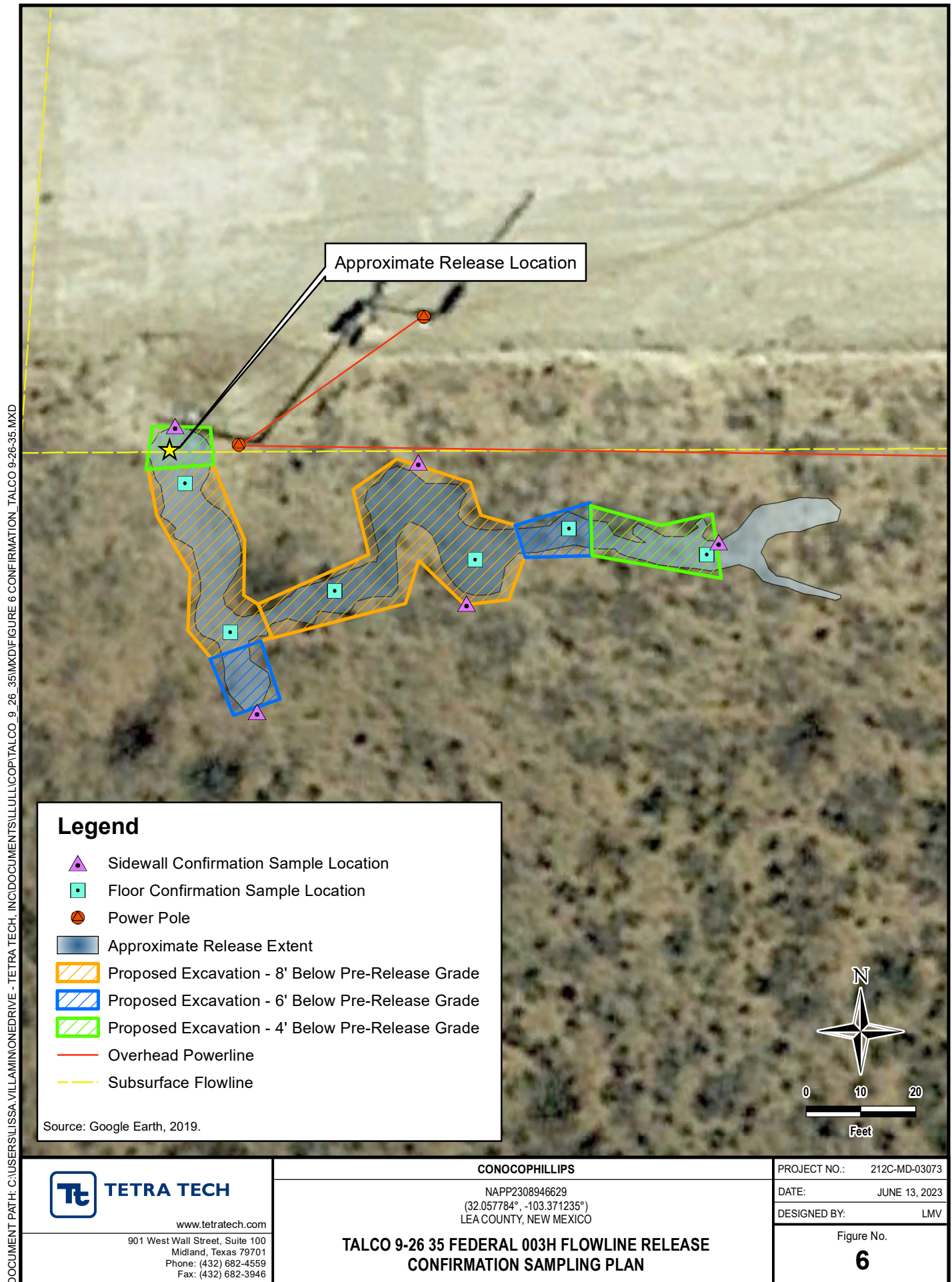
DOCUMENT PATH: C:\USERS\LISSA.VILLAMONEDRIVE - TETRA TECH, INC\DOCUMENTS\TALCO 9-26 35\TALCO 9-26 35\MXD\FIGURE 4B SITE ASSESS DTW TALCO 9-26 35.MXD











## **TABLES**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
SOIL ASSESSMENT - NAPP2308946629  
CONOCOPHILLIPS  
TALCO 9 26 35 FEDERAL #003H FLOWLINE RELEASE  
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH (GRO+DRO+EXT DRO)
		ft. bgs	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>	Q	> C <sub>10</sub> - C <sub>28</sub>	Q	> C <sub>28</sub> - C <sub>36</sub>	Q		
		Closure Criteria for Pasture / Off-Pad Soils 0-4' bgs:	600 mg/kg		< 10 mg/kg		--		--		--		< 50 mg/kg		--		--		--		--	100 mg/kg
		Closure Criteria for Soils >4' bgs (GW 50-100 ft):	10,000 mg/kg		< 10 mg/kg		--		--		--		< 50 mg/kg		--		--		--		1000 mg/kg	2500 mg/kg
HA-1	4/19/2023	3-4	688		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		538		93.5		538	631.5
		4-5	2,080		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		11.1		< 10.0		11.1	11.1
		5-6	2,440	QM-07	< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		19.9		< 10.0		19.9	19.9
		6-7	5,120		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
		7-8	4,280		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		12.3		< 10.0		12.3	12.3
		8-9	3,400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-2 / T-1	4/19/2023	3-4	3,720		< 2.00		16.4		11.1		57.7		85.2		1890		13700		2870		15,590	18,460
		4-5	1,840		4.67		55		35.1		204		299		3950		14000		1670		17,950	19,620
		5-6	2,800		2.36	QM-07, QR-03	32.1	QM-07, QR-03	21.8	QM-07, QR-03	123	QM-07, QR-03	179	QM-07, QR-03	4280		15600		3010		19,880	22,890
		6-7	4,560		1.9		31.4		23.6		135		192		3570		12400		2220		15,970	18,190
		7-8	5,120		0.061		2.15		2.84		15.6		20.7		675		3120		526		3,795	4,321
		8-9	1,250		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		221		41.7		221	262.7
	5/25/2023	9-10	144		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		67.7		< 10.0		67.7	67.7
		10-11	96.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		34.5		< 10.0		34.5	34.5
		11-12	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
		12-13	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-3	4/19/2023	0-1	48.0		< 5.00		18		11.9		69		98.9		2840		7970		1470		10,810	12,280
		1-2	32.0		< 0.050		1.2		1.38		7.81		10.4		440		2550		461		2,990	3,451
		2-3	32.0		< 0.050		1.2		1.38		7.81		10.4		440		2550		461		2,990	3,451
		3-4	16.0		1.16		22.4		15		82.9		121		1670		4760		864		6,430	7,294
HA-4	4/19/2023	3-4	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		238		49.8		238	287.8
		4-5	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		12.5		< 10.0		12.5	12.5
		5-6	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		19.7		< 10.0		19.7	19.7
		6-7	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		71.5		16.3		71.5	87.8
		7-8	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		13.3		< 10.0		13.3	13.3
HA-5	4/19/2023	2-3	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-6	4/19/2023	0-1	160.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-7	4/19/2023	0-1	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-8	4/19/2023	0-1	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-9	4/19/2023	0-1	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-10	4/19/2023	0-1	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-11	4/19/2023	0-1	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	-
HA-12	5/24/2023	0-1	< 16.0		< 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 5M4500CI-B  
2 Method 8021B  
3 Method 8015M

**Bold and italicized values indicate exceedance of proposed Site RRALs.**

Shaded rows indicate intervals proposed for excavation.

## QUALIFIERS:

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

## **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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

Nature and Volume of Release

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

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


Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

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

### Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name _____	Title: _____
Signature: <u></u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>03/30/2023</u>

Spill Calculation - Subsurface Spill - Rectangle											Remediation Recommendation	
NAPP2308946629											Page 19 of 89	
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.)	Percentage of Oil if Spilled Fluid is a Mixture (%)	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)	Total Estimated Contaminated Soil, uncompacted, 25% (yd³.)	Current Rule of Thumb - RMR Handover Volume, (yd³.)
Rectangle A	17.0	8.0	9.0	Off-Pad ▾	15.02%	18.16	2.73	30%	0.82	1.91	4.72	750
Rectangle B	7.0	12.0	9.0	Off-Pad ▾	15.02%	11.21	1.68		0.51	1.18	2.92	
Rectangle C	11.0	20.0	12.0	Off-Pad ▾	15.02%	39.16	5.88		1.76	4.12	10.19	
Rectangle D	10.0	13.0	12.0	Off-Pad ▾	15.02%	23.14	3.48		1.04	2.43	6.02	
Rectangle E	13.0	8.0	12.0	Off-Pad ▾	15.02%	18.51	2.78		0.83	1.95	4.81	
Rectangle F	6.0	13.0	12.0	Off-Pad ▾	15.02%	13.88	2.09		0.63	1.46	3.61	
Rectangle G	3.0	13.0	12.0	Off-Pad ▾	15.02%	6.94	1.04		0.31	0.73	1.81	
Rectangle H	4.0	27.0	24.0	Off-Pad ▾	15.02%	38.45	5.77		1.73	4.04	10.00	
Rectangle I	5.0	12.0	24.0	Off-Pad ▾	15.02%	21.36	3.21		0.96	2.25	5.56	
Rectangle J	7.0	40.0	20.0	Off-Pad ▾	15.02%	124.60	18.71		5.61	13.10	32.41	
Total Subsurface Volume Released:							47.3755		14.2126	33.1628	82.04	BU

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

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: Jocelyn Harimon Date: 06/20/2023

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

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

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

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

**OCD Only**Received by: Jocelyn Harimon Date: 06/20/2023☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature: Nelson Velez Date: 09/18/2023

Remediation plan is approved as written. COG has 90-days (December 18, 2023) to submit its appropriate or final closure report.



## **APPENDIX B**

### **Regulatory Correspondence**

**From:** [Taylor, Shelly J](#)  
**To:** [Lull, Christian](#)  
**Subject:** Re: [EXTERNAL] Fwd: COP - TALCO 9 26 35 Federal #003H FL Release  
**Date:** Friday, May 05, 2023 1:14:56 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[Outlook-f1y5sh3p.png](#)

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

You are cleared to proceed with all activities. I am going to check to see if you need to pay into the PBPA.

Sincerely,

*Shelly J Taylor*

Environmental Protection Specialist  
Realty - Compliance

Bureau of Land Management/Carlsbad Field Office  
620 E. Greene St  
Carlsbad, NM 88220  
Direct 575.234.5706  
Mobile 575.499.6831  
[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)

Spill/Release email: **BLM\_NM\_CFO\_REALTY\_SPILL@BLM.GOV**

**PLEASE NOTE:** I have a new email address: **sjtaylor@blm.gov**



**From:** Lull, Christian <Christian.Lull@tetrattech.com>  
**Sent:** Friday, May 5, 2023 11:14 AM  
**To:** Taylor, Shelly J <sjtaylor@blm.gov>  
**Subject:** [EXTERNAL] Fwd: COP - TALCO 9 26 35 Federal #003H FL Release

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

On topic. See below.  
Can you clear us?

Christian

Get [Outlook](#) for iOS

---

**From:** Llull, Christian  
**Sent:** Tuesday, April 18, 2023 2:51:46 PM  
**To:** Taylor, Shelly J <sjtaylor@blm.gov>  
**Subject:** COP - TALCO 9 26 35 Federal #003H FL Release

Shelly,

The **TALCO 9-26-35 Flowline Release** is just off pad on BLM land.  
See attached kmz.  
Site in Lea County, NM about 11.1 miles southwest of Jal on BLM land.

**TALCO 9-26-35 Flowline Release**  
**API 30-025-43458**  
**32.05816, -103.36893**  
**DOR 3/28/23**  
**Off-pad in Pasture Flowline**  
**Incident ID NAPP2308946629**  
**BLM Land**

We will plan to remediate in the next 60 days.  
Should I submit this to the CFO real estate email address [blm\\_nm\\_cfo\\_realty\\_spill@blm.gov](mailto:blm_nm_cfo_realty_spill@blm.gov)?

**Christian Llull, P.G.** | Program Manager  
Direct +1 (512) 338-2861 | Business +1 (512) 338-1667 | Fax +1 (512) 338-1331 | [christian.llull@tetrattech.com](mailto:christian.llull@tetrattech.com)

**Tetra Tech** | *Leading with Science*® | OGA  
8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | [tetrattech.com](https://www.tetrattech.com)

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



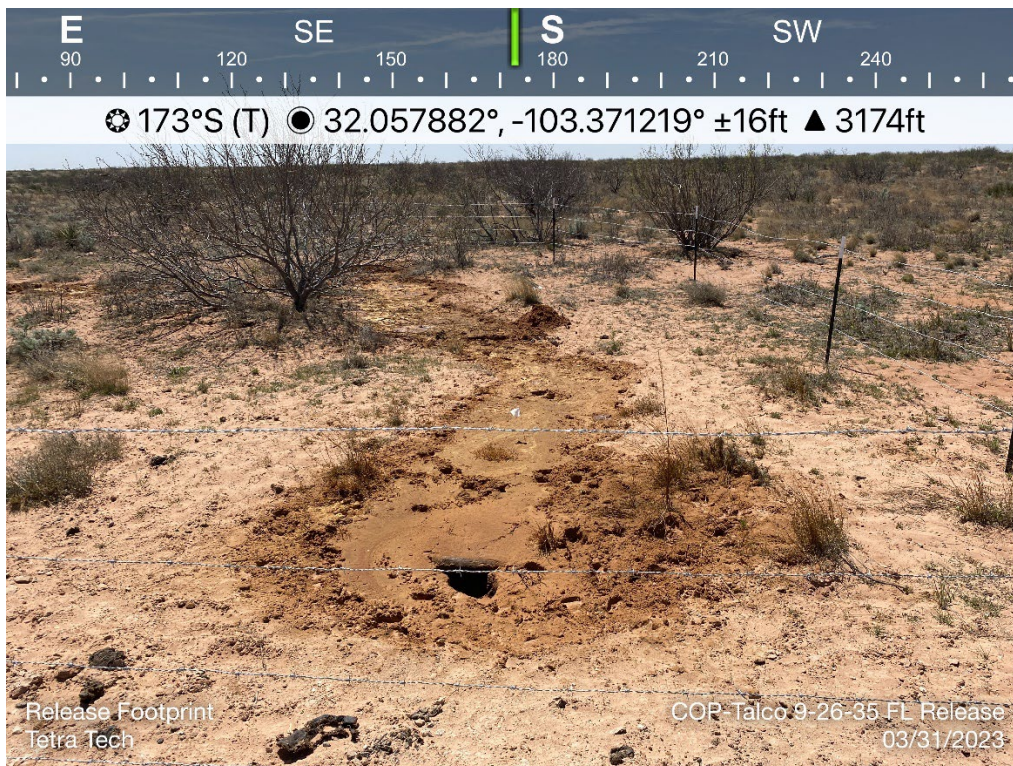
## **APPENDIX C**

# **Photographic Documentation**



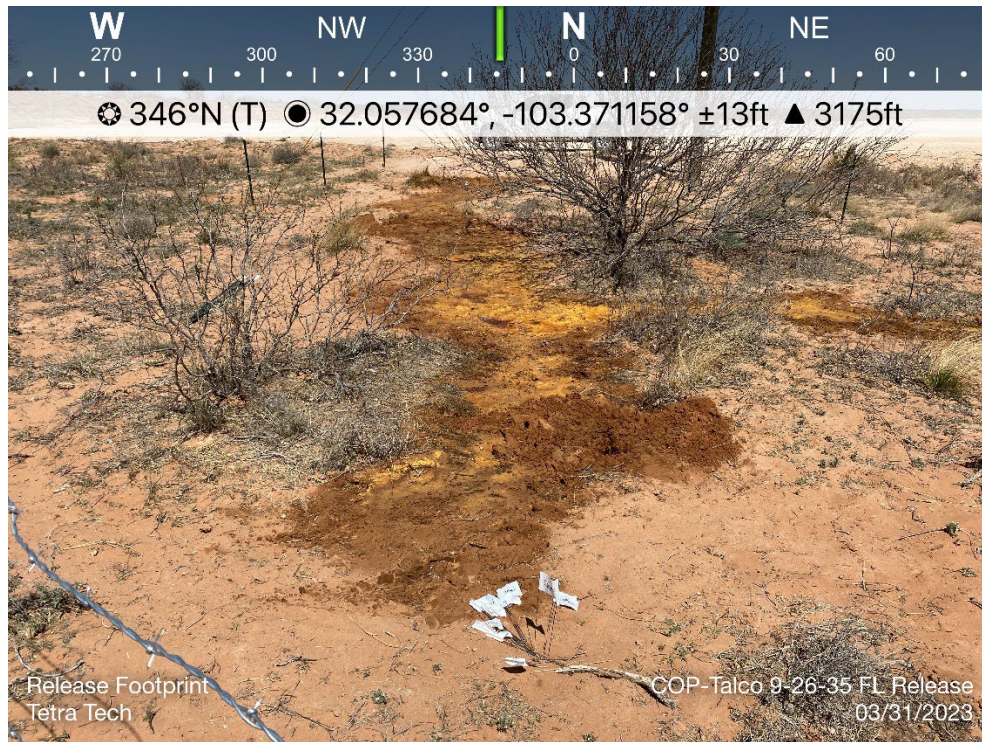


TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	Site signage. Talco 9 26 35 Federal 3H and location information.	1
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	3/31/2023

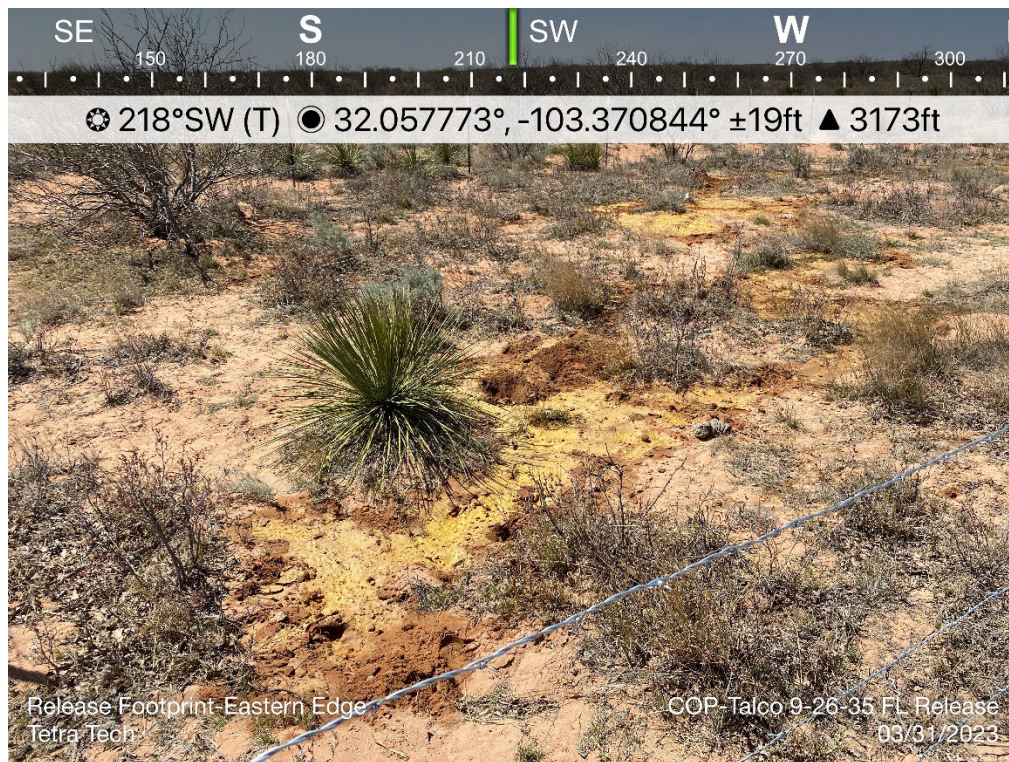


TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View south of release point and footprint.	2
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	3/31/2023



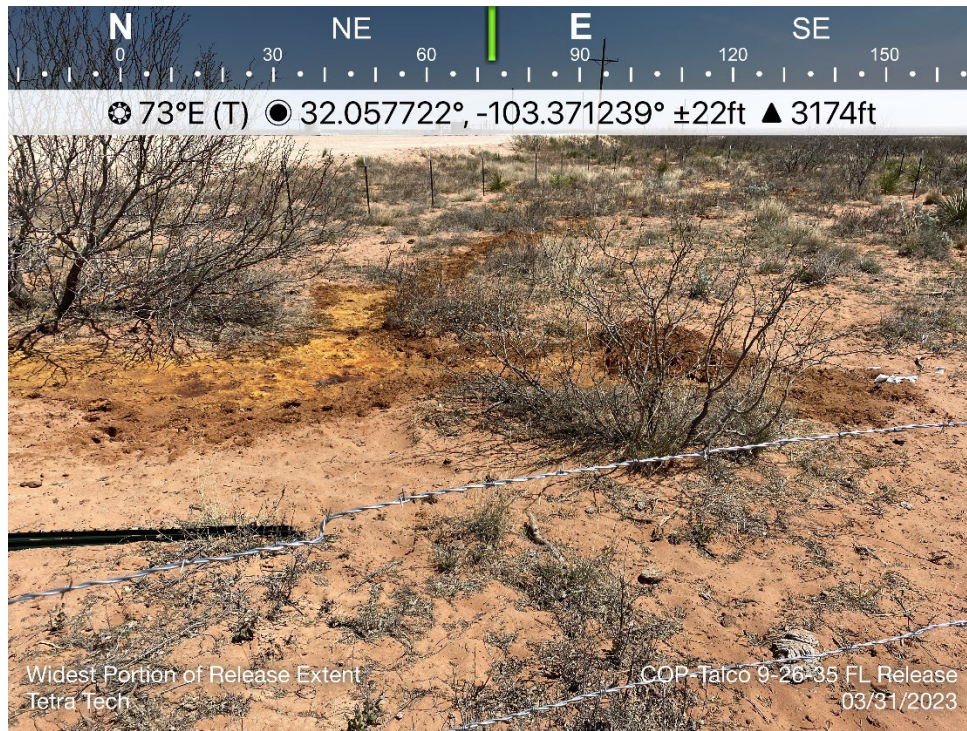


TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View north. Release footprint, surface staining.	3
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	3/31/2023

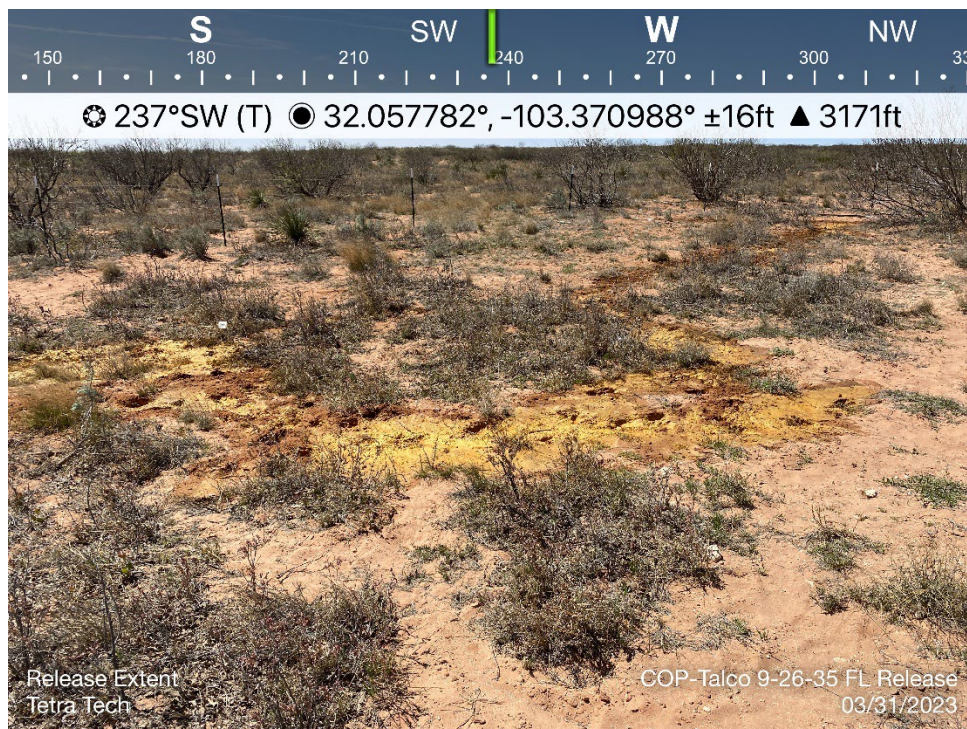


TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View southwest. Eastern portion of release area, surface staining.	4
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	3/31/2023



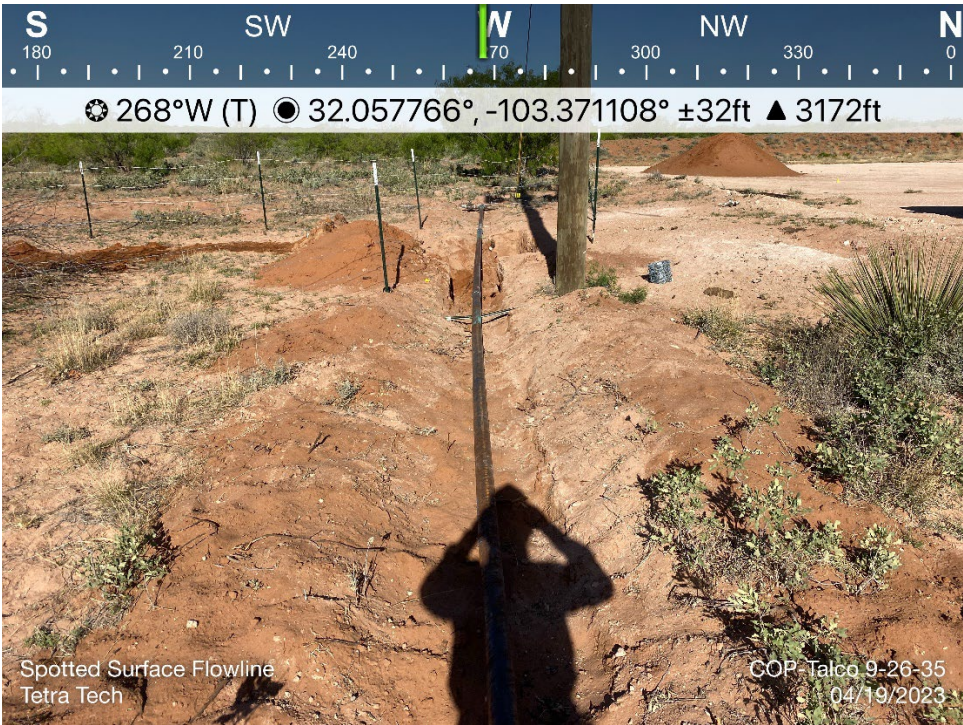


TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View east. Release footprint, surface staining.	5
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	3/31/2023

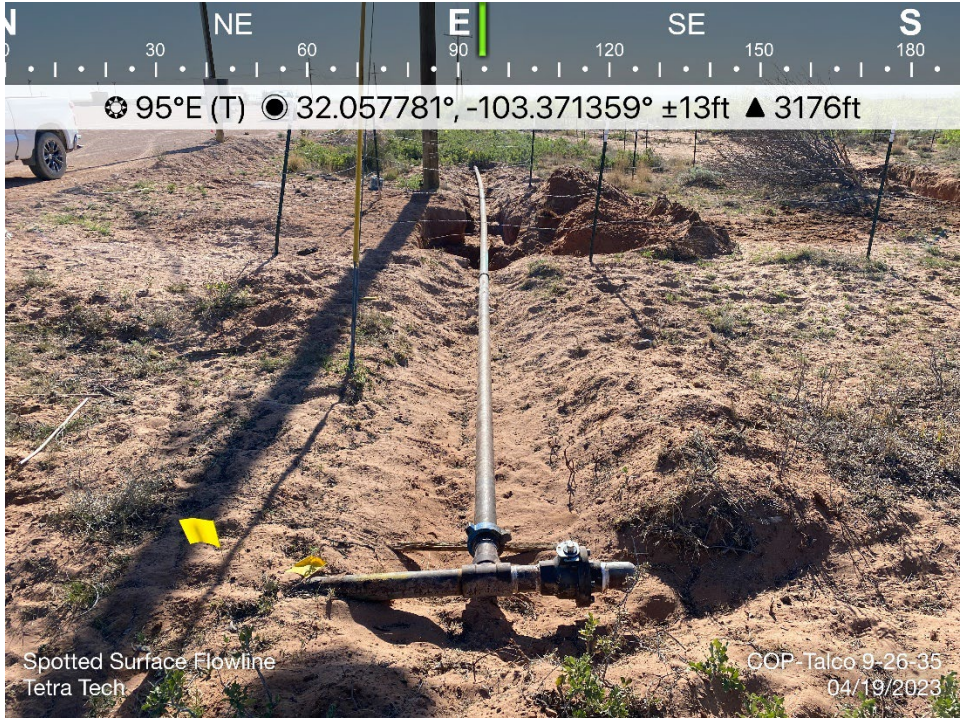


TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View southwest. Release footprint, surface staining.	6
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	3/31/2023



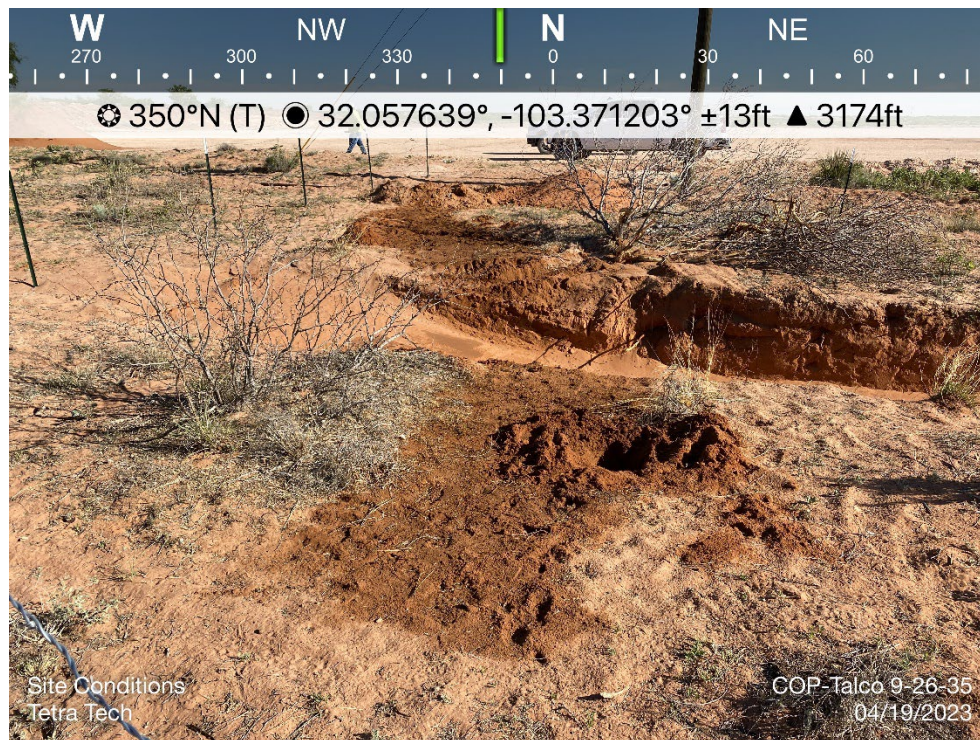


TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View west. Initial Response excavation, exposed subsurface steel line.	7
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	4/19/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View east. Initial Response excavation, exposed subsurface steel line.	8
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	4/19/2023





TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View north. Initial Response excavation, surface staining.	9
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	4/19/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03073	DESCRIPTION	View west. Initial Response excavation, residual staining.	11
	SITE NAME	Talco 9 26 35 Federal #003H Flowline Release	4/19/2023

## **APPENDIX D**

### **Initial Response Waste Manifests**



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: MICHELLE MULLINS  
AFE #:  
PO #:  
Manifest #: 73101  
Manif. Date: 4/6/2023  
Hauler: J & R OILFIELD SERVICE  
Driver: AUGUSTIN  
Truck #: 107  
Card #  
Job Ref #

Ticket #: 700-1415945  
Bid #: O6UJ9A000JEC  
Date: 4/6/2023  
Generator: CONOCOPHILLIPS  
Generator #: 40946  
Well Ser. #: 43458L  
Well Name: TALCO 9 26 35 FEDERAL  
Well #: 003H  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

12.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_





Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: MICHELLE MULLINS  
AFE #:  
PO #:  
Manifest #: 73678  
Manif. Date: 4/6/2023  
Hauler: J & R OILFIELD SERVICE  
Driver: JESUS  
Truck #: 115  
Card #  
Job Ref #

Ticket #: 700-1415681  
Bid #: O6UJ9A000JEC  
Date: 4/6/2023  
Generator: CONOCOPHILLIPS  
Generator #: 40946  
Well Ser. #: 43458L  
Well Name: TALCO 9 26 35 FEDERAL  
Well #: 003H  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

**Product / Service****Quantity Units**

Contaminated Soil (RCRA Exempt)

12.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

**Driver/ Agent Signature****R360 Representative Signature****Customer Approval****THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: MICHELLE MULLINS  
AFE #:  
PO #:  
Manifest #: 73678  
Manif. Date: 4/6/2023  
Hauler: J & R OILFIELD SERVICE  
Driver: JESUS  
Truck #: 115  
Card #  
Job Ref #

Ticket #: 700-1415949  
Bid #: O6UJ9A000JEC  
Date: 4/6/2023  
Generator: CONOCOPHILLIPS  
Generator #: 40946  
Well Ser. #: 43458L  
Well Name: TALCO 9 26 35 FEDERAL  
Well #: 003H  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

12.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_





## Owl Landfill Services, LLC

DBA: Northern Delaware Basin Landfill

8201 Preston Rd., Suite 520

Dallas, TX 75225

214.292.2011

ar@ndblandfill.com

COMPANY MAN: [Signature]  
(Authorized Agent's Printed Name and Title)

SIGNATURE: \_\_\_\_\_

COMPANY MAN EMAIL: \_\_\_\_\_

COMPANY MAN PHONE: \_\_\_\_\_

MANIFEST #

0000051

COMPANY NAME: ConocoPhillipsDATE: 11/23LEASE: Talco 11135 Fed

PHONE: \_\_\_\_\_

AFE #: \_\_\_\_\_ API: 301023-13158QUANTITY: \_\_\_\_\_ ☐ BBLsRIG NAME: \_\_\_\_\_ WELL #: H12 ☒ YARDSSTATE & COUNTY ORIGIN: La

Waste Description (check only one box)

☐ RCRA Exempt☐ RCRA Non-Exempt☐ Water Based Cuttings (DRY)☐ Water Based Cuttings (WET)☒ Contaminated Soil☐ Produced Sands☐ Oil Based Cuttings (DRY)☐ Oil Based Cuttings (WET)☐ Injectable Fluids☐ Non-Injectable Fluids☐ Oil Base Mud☐ Water Base Mud☐ Muds w/Cement☐ Tank Bottoms☐ Rig Trash☐ Pit Liners

Authorize Washout?

☐ Yes☒ No☐ Other: \_\_\_\_\_

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☐ RCRA EXEMPT:

Oilfield wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (NDBL Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oilfield waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ SDS Information☐ RCRA Hazardous Waste Analysis☐ Process Knowledge☐ Other (Provide Description Below)☐ EMERGENCY NON-OILFIELD:

Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of that waste must accompany this form)

(Print) Authorized Agent's Name \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

## TO BE COMPLETED BY THE TRANSPORTER WHILE THE GENERATOR IS PRESENT

COMPANY NAME: J&RYARD #: \_\_\_\_\_ WHP #: \_\_\_\_\_ TRUCK #: 115ADDRESS: Hagerman, NMTICKET #: 73173 ROLL OFF BIN#: \_\_\_\_\_ TRAILER #: \_\_\_\_\_DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ ☐ AM

DISPATCHER: \_\_\_\_\_

RECEIVED: \_\_\_\_\_ RECEIVED: \_\_\_\_\_ ☐ PM

NAME: \_\_\_\_\_ PHONE #: \_\_\_\_\_

The following statement must be signed by the truck driver prior to unloading at disposal facility:

"I CERTIFY THAT NO OTHER MATERIAL HAS BEEN PLACED IN THIS VESSEL SINCE LOADING OF MATERIAL DESCRIBED IN PART 1 ABOVE."

DRIVER: Jesus DominguezDRIVER'S SIGNATURE: [Signature]

(Driver's Name Printed)

I, (TRANSPORTER), CERTIFY THAT THE INFORMATION GIVEN ON THIS MANIFEST IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

## TO BE COMPLETED BY OWL LANDFILL EMPLOYEES

FACILITY RECEIVED AT (Check One):

DATE: 4/11/23 TIME IN: 1230 AM/PM

TIME OUT: \_\_\_\_\_ AM/PM

☐ Northern Delaware Basin Landfill

2029 W. NM Highway 128 | Jal, New Mexico 88252

WASHOUT BY: \_\_\_\_\_

WASHOUT: \_\_\_\_\_

TIME IN: \_\_\_\_\_

TIME OUT: \_\_\_\_\_

ACCEPTANCE TESTING: PAINT FILTER: PASS FAIL N/A

TCLP: PASS FAIL N/A

TOX: PASS FAIL N/A

NORM  
TESTING:(Less than 50  
MCR)

Shake Out:		
1	2	3
H <sub>2</sub> O		
S		

Gallon Test: \_\_\_\_\_

SERVICE NOTES:

This is to certify that: [Signature]  
Employee (Printed Name)

EMPLOYEE SIGNATURE: \_\_\_\_\_

has received the above indicated waste, waste has passed all acceptances testing of this facility and the waste has been disposed of in an authorized manner at a permitted site.

White Copy: Disposal Facility

Yellow: Transporter

Pink: Generator



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: MICHELLE MULLINS  
AFE #:  
PO #:  
Manifest #: 73679  
Manif. Date: 4/7/2023  
Hauler: J & R OILFIELD SERVICE  
Driver: JESUS  
Truck #: 115  
Card #  
Job Ref #

Ticket #: 700-1416214  
Bid #: O6UJ9A000JEC  
Date: 4/7/2023  
Generator: CONOCOPHILLIPS  
Generator #: 40946  
Well Ser. #: 43458L  
Well Name: TALCO 9 26 35 FEDERAL  
Well #: 003H  
Field:  
Field #:  
Rig: NON-DRILLING  
County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

12.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

## **APPENDIX E**

### **Site Characterization**



# 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="#">C 04601 POD1</a>	CUB	LE		3	4	3	05	26S	35E	651710	3548919	2244			
<a href="#">CP 01305 POD1</a>	CP	LE		1	4	31	25S	37E	655628	3551065		3589	420	230	190

Average Depth to Water: **230 feet**

Minimum Depth: **230 feet**

Maximum Depth: **230 feet**

Record Count: 2

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 653758.12

**Northing (Y):** 3548000.8

**Radius:** 4000

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.

4/10/23 1:54 PM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



212C-MD-03073		<b>TETRA TECH</b>		<b>LOG OF BORING DTW</b>			Page 1 of 1	
Project Name: Talco 9-26-35 Fed 3H								
Borehole Location GPS Coordinates: 32.058730°, -103.370426°				Surface Elevation: 3166 ft				
Borehole Number: DTW			Borehole Diameter (in.): 8		Date Started: 5/24/2023		Date Finished: 5/24/2023	

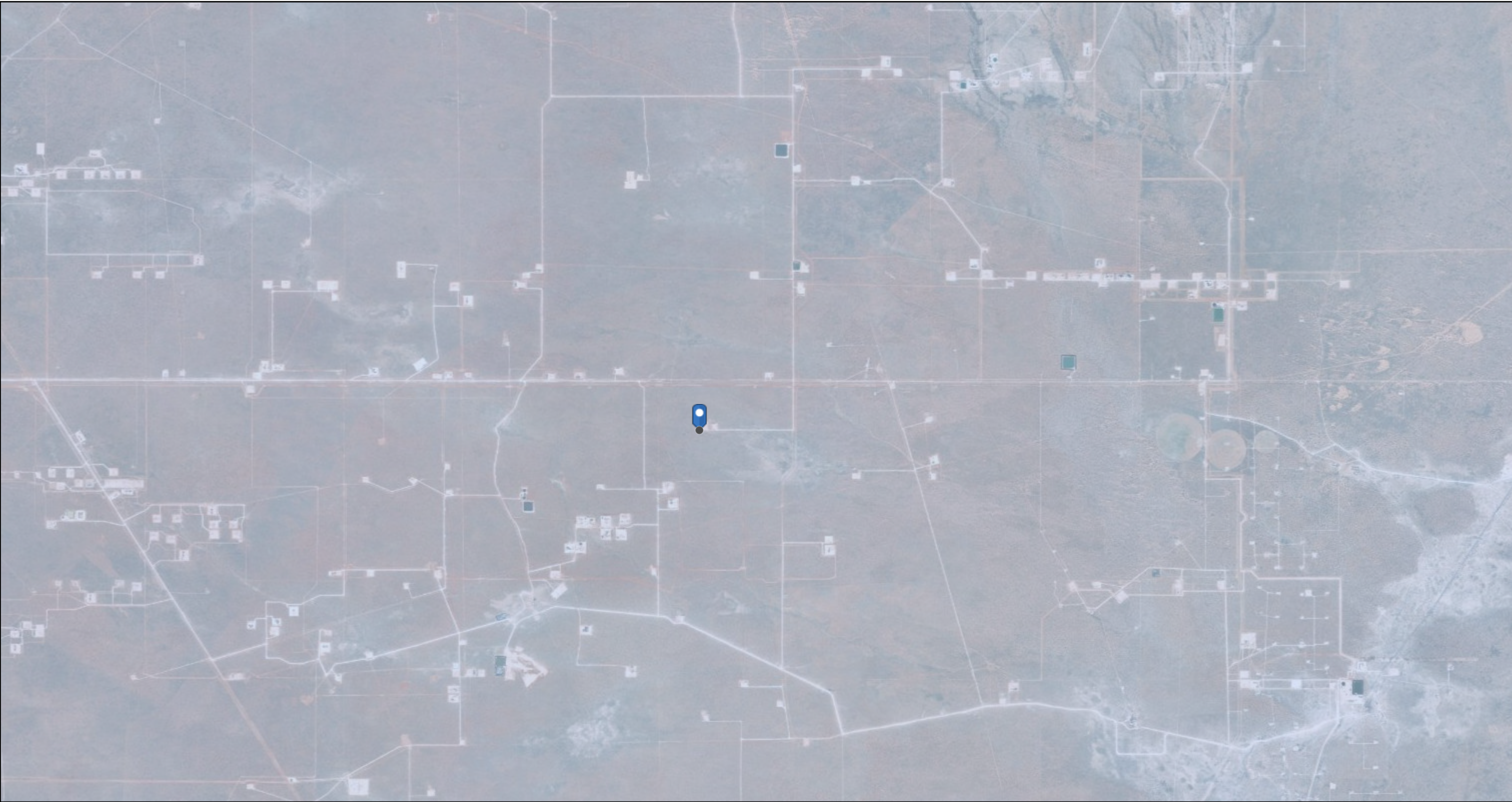
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		DEPTH (ft)	REMARKS
												While Drilling	Upon Completion of Drilling		
			ExStik	PID								While Drilling <u>▽</u> DRY ft    Upon Completion of Drilling <u>▽</u> DRY ft Remarks:			
												<b>MATERIAL DESCRIPTION</b>			
5												<b>-SM-</b> SAND: Brown, dry, fine- to coarse-grained, pad material	2		
												<b>-SM-</b> SAND: Light reddish brown, dry, fine-grained, weakly cemented	6		
10												<b>-SC-</b> CLAYEY SAND: Light reddish brown, dry, fine-grained, trace caliche nodules	8		
												<b>-SC-</b> CLAYEY SAND: Light brown to brown, dry, fine-grained, weakly cemented, trace caliche nodules	14		
15												<b>-SM-</b> SAND: Light reddish brown, dry, very fine- to fine-grained, weakly cemented	19		
20												<b>-SP-</b> SAND: Light reddish brown, loose, dry, very fine-grained			
25															
30															
35															
40												<b>-SM-</b> SAND: Light reddish brown, loose, dry, very fine-grained	39		
45															
50															
55												-- Cuttings collected at 54 feet, soil sample dry			
														57	
Bottom of borehole at 57.0 feet.															


  

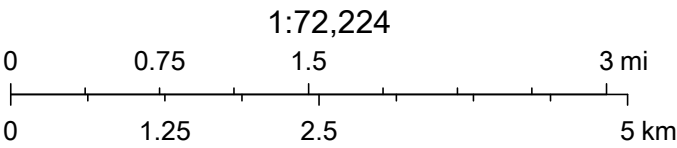
Sampler Types: <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Split Spoon   Shelby   Bulk Sample   Grab Sample         </div> <div style="width: 50%;">  Acetate Liner   Vane Shear   Discrete Sample   Test Pit         </div> </div>	Operation Types: <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Mud Rotary   Continuous Flight Auger   Wash Rotary         </div> <div style="width: 50%;">  Hand Auger   Air Rotary   Direct Push   Core Barrel         </div> </div>	Notes: Surface elevation is an approximate value obtained from Google Earth data.
Logger: Colton Bickerstaff	Drilling Equipment: Air Rotary	Driller: Scarborough Drilling



# OCD Karst Potential Map



4/10/2023, 3:00:00 PM  
Karst Occurrence Potential  
 Low



BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, Earthstar Geographics

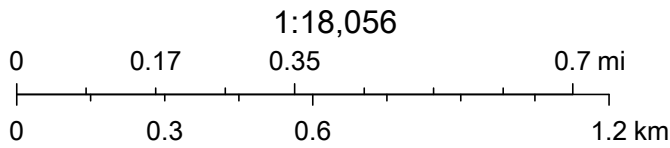


# OCD Waterbodies Map



4/10/2023, 2:58:34 PM

— OSE Streams



Esri, HERE, Garmin, IPC, Maxar, NM OSE



# OCD - Mineral and Surface Ownership



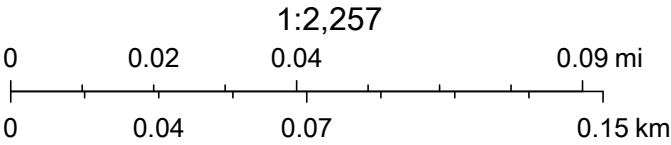
5/8/2023, 3:25:26 PM

Mineral Ownership

A-All minerals are owned by U.S.

Land Ownership

BLM



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

## **APPENDIX F**

### **Analytical Data**



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

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April 25, 2023

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: TALCO 9-26-35 FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 04/19/23 15:37.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 1 (3'-4') (H231907-01)**

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	04/24/2023	ND	1.86	92.9	2.00	4.22	
Toluene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.49	
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.10	
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.32	105	6.00	4.30	
Total BTEX	<0.300	0.300	04/24/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	688	16.0	04/24/2023	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	04/24/2023	ND	177	88.4	200	5.03	
DRO >C10-C28*	538	10.0	04/24/2023	ND	173	86.4	200	7.64	
EXT DRO >C28-C36	93.5	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 90.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 1 (4'-5') (H231907-02)**

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	04/24/2023	ND	1.86	92.9	2.00	4.22		
Toluene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.10		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.32	105	6.00	4.30		
Total BTEx	<0.300	0.300	04/24/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2080	16.0	04/24/2023	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	04/24/2023	ND	177	88.4	200	5.03	
DRO >C10-C28*	11.1	10.0	04/24/2023	ND	173	86.4	200	7.64	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 85.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 1 (5'-6') (H231907-03)**

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	04/24/2023	ND	1.86	92.9	2.00	4.22		
Toluene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.10		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.32	105	6.00	4.30		
Total BTEx	<0.300	0.300	04/24/2023	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	2440	16.0	04/24/2023	ND	416	104	400	0.00	QM-07	

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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	19.9	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.2 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 1 (6'-7') (H231907-04)**

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	04/24/2023	ND	1.86	92.9	2.00	4.22		
Toluene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.10		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.32	105	6.00	4.30		
Total BTEx	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	5120	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.7 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 1 (7'-8') (H231907-05)**

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	04/24/2023	ND	1.86	92.9	2.00	4.22		
Toluene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.10		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.32	105	6.00	4.30		
Total BTEx	<0.300	0.300	04/24/2023	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	4280	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	12.3	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 1 (8'-9') (H231907-06)**

BTX 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	04/24/2023	ND	1.86	92.9	2.00	4.22		
Toluene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.03	102	2.00	4.10		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.32	105	6.00	4.30		
Total BTX	<0.300	0.300	04/24/2023	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	3400	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 96.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 2 (3'-4') (H231907-07)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	04/24/2023	ND	1.86	92.9	2.00	4.22	
Toluene*	16.4	2.00	04/24/2023	ND	2.03	102	2.00	4.49	
Ethylbenzene*	11.1	2.00	04/24/2023	ND	2.03	102	2.00	4.10	
Total Xylenes*	57.7	6.00	04/24/2023	ND	6.32	105	6.00	4.30	
Total BTEX	85.2	12.0	04/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 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	3720	16.0	04/24/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1890	100	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	13700	100	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	2870	100	04/24/2023	ND					

Surrogate: 1-Chlorooctane 244 % 48.2-134

Surrogate: 1-Chlorooctadecane 301 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 2 (4'-5') (H231907-08)**

BTEx 8021B		mg/kg		Analyzed By: JH/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>4.97</b>	2.00	04/24/2023	ND	1.86	92.9	2.00	4.22	
<b>Toluene*</b>	<b>55.0</b>	2.00	04/24/2023	ND	2.03	102	2.00	4.49	
<b>Ethylbenzene*</b>	<b>35.1</b>	2.00	04/24/2023	ND	2.03	102	2.00	4.10	
<b>Total Xylenes*</b>	<b>204</b>	6.00	04/24/2023	ND	6.32	105	6.00	4.30	
<b>Total BTEX</b>	<b>299</b>	12.0	04/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 154 % 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
<b>Chloride</b>	<b>1840</b>	16.0	04/24/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>3950</b>	100	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>14000</b>	100	04/24/2023	ND	170	85.2	200	2.94	
<b>EXT DRO &gt;C28-C36</b>	<b>2670</b>	100	04/24/2023	ND					

Surrogate: 1-Chlorooctane 342 % 48.2-134

Surrogate: 1-Chlorooctadecane 271 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 2 (5'-6') (H231907-09)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>2.36</b>	1.00	04/24/2023	ND	1.95	97.6	2.00	2.69	QM-07, QR-03
<b>Toluene*</b>	<b>32.1</b>	1.00	04/24/2023	ND	2.07	103	2.00	2.04	QM-07, QR-03
<b>Ethylbenzene*</b>	<b>21.8</b>	1.00	04/24/2023	ND	2.17	109	2.00	3.78	QM-07, QR-03
<b>Total Xylenes*</b>	<b>123</b>	3.00	04/24/2023	ND	6.69	111	6.00	5.01	QM-07, QR-03
<b>Total BTEX</b>	<b>179</b>	6.00	04/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 158 % 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
<b>Chloride</b>	<b>2800</b>	16.0	04/24/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>4280</b>	100	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>15600</b>	100	04/24/2023	ND	170	85.2	200	2.94	
<b>EXT DRO &gt;C28-C36</b>	<b>3010</b>	100	04/24/2023	ND					

Surrogate: 1-Chlorooctane 373 % 48.2-134

Surrogate: 1-Chlorooctadecane 310 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 2 (6'-7') (H231907-10)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.90</b>	1.00	04/24/2023	ND	1.95	97.6	2.00	2.69	
<b>Toluene*</b>	<b>31.4</b>	1.00	04/24/2023	ND	2.07	103	2.00	2.04	
<b>Ethylbenzene*</b>	<b>23.6</b>	1.00	04/24/2023	ND	2.17	109	2.00	3.78	
<b>Total Xylenes*</b>	<b>135</b>	3.00	04/24/2023	ND	6.69	111	6.00	5.01	
<b>Total BTEX</b>	<b>192</b>	6.00	04/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 159 % 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
<b>Chloride</b>	<b>4560</b>	16.0	04/24/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>3570</b>	100	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>12400</b>	100	04/24/2023	ND	170	85.2	200	2.94	
<b>EXT DRO &gt;C28-C36</b>	<b>2220</b>	100	04/24/2023	ND					

Surrogate: 1-Chlorooctane 328 % 48.2-134

Surrogate: 1-Chlorooctadecane 246 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 2 (7'-8') (H231907-11)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.061</b>	0.050	04/24/2023	ND	1.95	97.6	2.00	2.69	
<b>Toluene*</b>	<b>2.15</b>	0.050	04/24/2023	ND	2.07	103	2.00	2.04	
<b>Ethylbenzene*</b>	<b>2.84</b>	0.050	04/24/2023	ND	2.17	109	2.00	3.78	
<b>Total Xylenes*</b>	<b>15.6</b>	0.150	04/24/2023	ND	6.69	111	6.00	5.01	
<b>Total BTEX</b>	<b>20.7</b>	0.300	04/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 269 % 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
<b>Chloride</b>	<b>5120</b>	16.0	04/24/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>675</b>	100	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>3120</b>	100	04/24/2023	ND	170	85.2	200	2.94	
<b>EXT DRO &gt;C28-C36</b>	<b>526</b>	100	04/24/2023	ND					

Surrogate: 1-Chlorooctane 138 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 2 (8'-9') (H231907-12)**

BTX 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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTX	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	1250	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	221	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	41.7	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 3 (0-1') (H231907-13)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<5.00	5.00	04/24/2023	ND	1.95	97.6	2.00	2.69	
Toluene*	18.0	5.00	04/24/2023	ND	2.07	103	2.00	2.04	
Ethylbenzene*	11.9	5.00	04/24/2023	ND	2.17	109	2.00	3.78	
Total Xylenes*	69.0	15.0	04/24/2023	ND	6.69	111	6.00	5.01	
Total BTEX	98.9	30.0	04/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/24/2023	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
									S-06

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2840	50.0	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	7970	50.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	1470	50.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 237 % 48.2-134

Surrogate: 1-Chlorooctadecane 152 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 3 (1'-2') (H231907-14)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/25/2023	ND	1.95	97.6	2.00	2.69	
<b>Toluene*</b>	<b>1.20</b>	0.050	04/25/2023	ND	2.07	103	2.00	2.04	
<b>Ethylbenzene*</b>	<b>1.38</b>	0.050	04/25/2023	ND	2.17	109	2.00	3.78	
<b>Total Xylenes*</b>	<b>7.81</b>	0.150	04/25/2023	ND	6.69	111	6.00	5.01	
<b>Total BTEX</b>	<b>10.4</b>	0.300	04/25/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 218 % 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
<b>Chloride</b>	<b>32.0</b>	16.0	04/24/2023	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
<b>GRO C6-C10*</b>	<b>440</b>	50.0	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>2550</b>	50.0	04/24/2023	ND	170	85.2	200	2.94	
<b>EXT DRO &gt;C28-C36</b>	<b>461</b>	50.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 3 (2'-3') (H231907-15)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.16</b>	1.00	04/25/2023	ND	1.95	97.6	2.00	2.69	
<b>Toluene*</b>	<b>22.4</b>	1.00	04/25/2023	ND	2.07	103	2.00	2.04	
<b>Ethylbenzene*</b>	<b>15.0</b>	1.00	04/25/2023	ND	2.17	109	2.00	3.78	
<b>Total Xylenes*</b>	<b>82.9</b>	3.00	04/25/2023	ND	6.69	111	6.00	5.01	
<b>Total BTEX</b>	<b>121</b>	6.00	04/25/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 144 % 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
<b>Chloride</b>	<b>32.0</b>	16.0	04/24/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1670</b>	50.0	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>4760</b>	50.0	04/24/2023	ND	170	85.2	200	2.94	
<b>EXT DRO &gt;C28-C36</b>	<b>864</b>	50.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 236 % 48.2-134

Surrogate: 1-Chlorooctadecane 154 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 3 (3'-4') (H231907-16)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	7.19	5.00	04/24/2023	ND	1.95	97.6	2.00	2.69	
Toluene*	57.6	5.00	04/24/2023	ND	2.07	103	2.00	2.04	
Ethylbenzene*	19.9	5.00	04/24/2023	ND	2.17	109	2.00	3.78	
Total Xylenes*	109	15.0	04/24/2023	ND	6.69	111	6.00	5.01	
Total BTEx	193	30.0	04/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	16.0	16.0	04/24/2023	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-06

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	4260	50.0	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	7670	50.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	1340	50.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 249 % 48.2-134

Surrogate: 1-Chlorooctadecane 148 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 4 (3'-4') (H231907-17)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEX	<0.300	0.300	04/24/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	238	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	49.8	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 78.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.0 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 4 (4'-5') (H231907-18)**

BTX 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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTX	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	<16.0	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>12.5</b>	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 94.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 4 (5'-6') (H231907-19)**

BTX 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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTX	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	<16.0	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>19.7</b>	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 96.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 4 (6'-7') (H231907-20)**

BTX 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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTX	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	71.5	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	16.3	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 4 (7'-8') (H231907-21)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEX	<0.300	0.300	04/24/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
<b>DRO &gt;C10-C28*</b>	<b>13.3</b>	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 5 (2'-3') (H231907-22)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEx	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	<16.0	16.0	04/24/2023	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	04/24/2023	ND	163	81.4	200	2.37	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	170	85.2	200	2.94	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 98.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 6 (0-1') (H231907-23)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEx	<0.300	0.300	04/24/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	04/24/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/24/2023	ND	181	90.3	200	0.367	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	156	78.0	200	0.142	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 88.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.5 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 7 (0-1') (H231907-24)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEx	<0.300	0.300	04/24/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/24/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/24/2023	ND	181	90.3	200	0.367	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	156	78.0	200	0.142	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 93.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.6 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 8 (0-1') (H231907-25)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEx	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	04/24/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/24/2023	ND	181	90.3	200	0.367	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	156	78.0	200	0.142	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 96.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.3 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 9 (0-1') (H231907-26)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEx	<0.300	0.300	04/24/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/24/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/24/2023	ND	181	90.3	200	0.367	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	156	78.0	200	0.142	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.8 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 10 (0-1') (H231907-27)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	<0.050	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEx	<0.300	0.300	04/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	16.0	16.0	04/24/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/24/2023	ND	181	90.3	200	0.367	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	156	78.0	200	0.142	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 92.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 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:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/25/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA - 11 (0-1') (H231907-28)**

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	04/24/2023	ND	1.95	97.6	2.00	2.69		
Toluene*	0.055	0.050	04/24/2023	ND	2.07	103	2.00	2.04		
Ethylbenzene*	<0.050	0.050	04/24/2023	ND	2.17	109	2.00	3.78		
Total Xylenes*	<0.150	0.150	04/24/2023	ND	6.69	111	6.00	5.01		
Total BTEx	<0.300	0.300	04/24/2023	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	<16.0	16.0	04/24/2023	ND	400	100	400	4.08		

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	04/24/2023	ND	181	90.3	200	0.367	
DRO >C10-C28*	<10.0	10.0	04/24/2023	ND	156	78.0	200	0.142	
EXT DRO >C28-C36	<10.0	10.0	04/24/2023	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 49.1-148

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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> <u>Tate Tech</u> <b>Project Manager:</b> <u>Christen Lull</u> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>P.O. #:</b> <b>Company:</b> <u>Tate Tech</u> <b>Attn:</b> <u>Christen Lull</u> <b>Address:</b> <u>by email</u> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>	
<b>Project #:</b> <u>212C-MD-03073</u> <b>Project Name:</b> <u>Tate 9-26-35 Fluorine Release</u> <b>Project Location:</b> <u>Lea County, NM</u> <b>Sampler Name:</b> <u>Celton Bickel</u>		<b>Project Owner:</b> <u>Carroll Phelps</u> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>	
<b>FOR LAB USE ONLY</b>			
<b>Lab I.D.</b> <u>H231907</u>	<b>Sample I.D.</b> 1 HA-1 (C3-4) 2 HA-1 (C4-5) 3 HA-1 (C5-6) 4 HA-1 (C6-7) 5 HA-1 (C7-8) 6 HA-1 (C8-9) 7 HA-2 (C3-4) 8 HA-2 (C4-5) 9 HA-2 (C5-6) 10 HA-2 (C6-7)	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	DATE TIME
		MATRIX PRESERV SAMPLING	ANALYSIS REQUEST TPH BTEX Chlorides
<b>RELEASE NOTE:</b> Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the service. All clients including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.			
<b>Relinquished By:</b> <u>[Signature]</u> <b>Date:</b> <u>4/19/23</u> <b>Time:</b> <u>1537</u>	<b>Received By:</b> <u>[Signature]</u> <b>Date:</b> <u>4/19/23</u> <b>Time:</b> <u>1537</u>	<b>Verbal Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Add'l Phone #:</b> <b>Remarks:</b> <u>Christen Lull @ tate tech, NM</u>	
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:	<b>Observed Temp. °C</b> <u>5.4</u> <b>Corrected Temp. °C</b> <u>4.8</u>	<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <b>CHECKED BY:</b> <u>[Signature]</u>	<b>Turnaround Time:</b> Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Cool Intact <input type="checkbox"/> Observed Temp. °C Corrected Temp. °C

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





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

2/3

<b>Company Name:</b> Tetra Tech <b>Project Manager:</b> Christina Lluu <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>P.O. #:</b> <b>Company:</b> Tetra Tech <b>Attn:</b> Christina Lluu <b>Address:</b> by email <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>	
<b>Project #:</b> 212-110-03073 <b>Project Name:</b> Tello 9-26-35 Pipeline Redesign <b>Project Location:</b> Lee County, NM <b>Sampler Name:</b> Colton Birkhead		<b>Project Owner:</b> ConocoPhillips <b>City:</b> <b>State:</b> <b>Zip:</b>	
<b>FOR LAB USE ONLY</b>			
<b>Lab I.D.</b> H231907	<b>Sample I.D.</b> 11 HA-2 (9'-8') 12 HA-2 (8'-9') 13 HA-3 (0'-11') 14 HA-3 (4'-2') 15 HA-3 (2'-3') 16 HA-3 (3'-4') 17 HA-4 (3'-4') 18 HA-4 (4'-5') 19 HA-4 (5'-6') 20 HA-4 (6'-7')	<b>MATRIX</b> (G) RAB OR (C) OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	<b>PRESERVATION</b> ACID/BASE: ICE / COOL OTHER:
<b>DATE</b> 4/19/23		<b>SAMPLING</b> TPH BTEX Chlorides	
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<b>Relinquished By:</b> [Signature] <b>Date:</b> 4/19/23 <b>Time:</b> 1537		<b>Received By:</b> [Signature] <b>Date:</b> 4/19/23 <b>Time:</b> 1537	
<b>Relinquished By:</b> [Signature] <b>Date:</b> 4/19/23 <b>Time:</b> 1537		<b>Received By:</b> [Signature] <b>Date:</b> 4/19/23 <b>Time:</b> 1537	
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:		<b>Observed Temp. °C</b> 5.4 <b>Corrected Temp. °C</b> 4.8	
<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<b>CHECKED BY:</b> [Signature] <b>Turnaround Time:</b> Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> <b>Thermometer ID #113</b> <b>Correction Factor -0.8°C</b>	
<b>Remarks:</b> Christina Lluu et al. stated can		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: <b>All Results are emailed. Please provide Email address:</b>	
<b>Turnaround Time:</b> Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> <b>Bacteria (only) Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<b>Observed Temp. °C</b> 5.4 <b>Corrected Temp. °C</b> 4.8	

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3/3

<b>Company Name:</b> Tatra Tech <b>Project Manager:</b> Christian Lull		<b>P.O. #:</b> <b>Company:</b> Tatra Tech <b>Attn:</b> Christian Lull <b>Address:</b> by email <b>City:</b> <b>State:</b> <b>Zip:</b>	
<b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b>		<b>Project #:</b> 212C-MD-03073 <b>Project Owner:</b> Lancelotti <b>Project Name:</b> Lee County, NM <b>Project Location:</b> Tatra Tech 9-26-35 Florence <b>Sample Name:</b> Colton Bickel <b>For Lab Use Only:</b>	
<b>Lab I.D.</b> H031907		<b>Sample I.D.</b> 21 HA-4 (7-8) 22 HA-5 (2-3) 23 HA-6 (0-1) 24 HA-7 (0-1) 25 HA-8 (0-1) 26 HA-9 (0-1) 27 HA-10 (0-1) 28 HA-11 (0-1)	
<b>Matrix:</b> (G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		<b>Preserv:</b> ACID/BASE: ICE / COOL OTHER:	
<b>Date:</b> 4/19/23 <b>Received By:</b> [Signature] <b>Time:</b> 1537 <b>Date:</b> 1537 <b>Received By:</b> [Signature]		<b>DATE</b> 4/19/23	
<b>Turnaround Time:</b> Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition <input type="checkbox"/> Cool Intact <input type="checkbox"/> Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C <input type="checkbox"/>		<b>TPH</b> <b>BTEX</b> <b>Chlorides</b>	
<b>Remarks:</b> Christian Lull @tatra.com		<b>Analysis Request:</b>	



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

May 31, 2023

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: TALCO 9-26-35 FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 05/25/23 15:20.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing 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:	05/25/2023	Sampling Date:	05/24/2023
Reported:	05/31/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA-12 (0-1') (H232678-01)**

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	05/26/2023	ND	2.06	103	2.00	7.80	
Toluene*	<0.050	0.050	05/26/2023	ND	2.15	107	2.00	8.59	
Ethylbenzene*	<0.050	0.050	05/26/2023	ND	2.05	103	2.00	7.50	
Total Xylenes*	<0.150	0.150	05/26/2023	ND	6.42	107	6.00	8.24	
Total BTEX	<0.300	0.300	05/26/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/26/2023	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/26/2023	ND	199	99.6	200	4.19	
DRO >C10-C28*	<10.0	10.0	05/26/2023	ND	197	98.5	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	05/26/2023	ND					

Surrogate: 1-Chlorooctane 140 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 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:	05/25/2023	Sampling Date:	05/25/2023
Reported:	05/31/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA-2 / T-1 (9'-10') (H232678-02)**

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	05/26/2023	ND	2.06	103	2.00	7.80		
Toluene*	<0.050	0.050	05/26/2023	ND	2.15	107	2.00	8.59		
Ethylbenzene*	<0.050	0.050	05/26/2023	ND	2.05	103	2.00	7.50		
Total Xylenes*	<0.150	0.150	05/26/2023	ND	6.42	107	6.00	8.24		
Total BTEx	<0.300	0.300	05/26/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/26/2023	ND	448	112	400	3.64		

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	05/26/2023	ND	199	99.6	200	4.19	
DRO >C10-C28*	67.7	10.0	05/26/2023	ND	197	98.5	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	05/26/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 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:	05/25/2023	Sampling Date:	05/25/2023
Reported:	05/31/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA-2 / T-1 (10'-11') (H232678-03)**

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	05/26/2023	ND	2.06	103	2.00	7.80		
Toluene*	<0.050	0.050	05/26/2023	ND	2.15	107	2.00	8.59		
Ethylbenzene*	<0.050	0.050	05/26/2023	ND	2.05	103	2.00	7.50		
Total Xylenes*	<0.150	0.150	05/26/2023	ND	6.42	107	6.00	8.24		
Total BTEx	<0.300	0.300	05/26/2023	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	96.0	16.0	05/26/2023	ND	448	112	400	3.64		

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	05/26/2023	ND	199	99.6	200	4.19	
DRO >C10-C28*	34.5	10.0	05/26/2023	ND	197	98.5	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	05/26/2023	ND					

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 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:	05/25/2023	Sampling Date:	05/25/2023
Reported:	05/31/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA-2 / T-1 (11'-12') (H232678-04)**

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	05/26/2023	ND	2.06	103	2.00	7.80		
Toluene*	<0.050	0.050	05/26/2023	ND	2.15	107	2.00	8.59		
Ethylbenzene*	<0.050	0.050	05/26/2023	ND	2.05	103	2.00	7.50		
Total Xylenes*	<0.150	0.150	05/26/2023	ND	6.42	107	6.00	8.24		
Total BTEx	<0.300	0.300	05/26/2023	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	48.0	16.0	05/26/2023	ND	448	112	400	3.64		

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	05/26/2023	ND	199	99.6	200	4.19	
DRO >C10-C28*	<10.0	10.0	05/26/2023	ND	197	98.5	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	05/26/2023	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 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:	05/25/2023	Sampling Date:	05/25/2023
Reported:	05/31/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA-2 / T-1 (12'-13') (H232678-05)**

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	05/26/2023	ND	2.06	103	2.00	7.80		
Toluene*	<0.050	0.050	05/26/2023	ND	2.15	107	2.00	8.59		
Ethylbenzene*	<0.050	0.050	05/26/2023	ND	2.05	103	2.00	7.50		
Total Xylenes*	<0.150	0.150	05/26/2023	ND	6.42	107	6.00	8.24		
Total BTEx	<0.300	0.300	05/26/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	05/26/2023	ND	448	112	400	3.64		

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	05/26/2023	ND	199	99.6	200	4.19	
DRO >C10-C28*	<10.0	10.0	05/26/2023	ND	197	98.5	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	05/26/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 49.1-148

Cardinal Laboratories

\*=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:	05/25/2023	Sampling Date:	05/25/2023
Reported:	05/31/2023	Sampling Type:	Soil
Project Name:	TALCO 9-26-35 FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03073	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY, NM		

**Sample ID: HA-2 / T-1 (13'-14') (H232678-06)**

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	05/26/2023	ND	2.06	103	2.00	7.80		
Toluene*	<0.050	0.050	05/26/2023	ND	2.15	107	2.00	8.59		
Ethylbenzene*	<0.050	0.050	05/26/2023	ND	2.05	103	2.00	7.50		
Total Xylenes*	<0.150	0.150	05/26/2023	ND	6.42	107	6.00	8.24		
Total BTEx	<0.300	0.300	05/26/2023	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	48.0	16.0	05/26/2023	ND	448	112	400	3.64		

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	05/26/2023	ND	199	99.6	200	4.19	
DRO >C10-C28*	<10.0	10.0	05/26/2023	ND	197	98.5	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	05/26/2023	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 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

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

[illegible]

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)

## **APPENDIX G**

### **Seed Mixture Details**

(27)

BLM Serial #:

Company Reference:

### 3.2 Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

\*Pounds of pure live seed: Pounds of seed x percent purity x percent germination = pounds pure live seed



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

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

CONDITIONS  
  
Action 229979

CONDITIONS

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  229979
	Action Type:  [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvez	Remediation plan is approved as written. COG has 90-days (December 18, 2023) to submit its appropriate or final closure report.	9/18/2023