TETRA TECH

April 15, 2022

Bradford Billings
Hydrologist/E.Spec.A
District 2 Artesia
1220 South St. Francis Drive
Oil Conservation Division
Santa Fe, NM 87505

Re: Release Characterization, Reclamation Work Plan, and Release Closure Request
ConocoPhillips
Heritage Concho
SRO SWD #101 Tank Release
Unit Letter G, Section 5, Township 26 South, Range 28 East
Eddy County, New Mexico
Incident ID# nMLB1121352991
2RP-805

Mr. Billings,

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips to assess a Heritage Concho release and subsequent remedial actions taken at the SRO SWD #101 Tank Release, which occurred at the former SRO SWD #101 well pad (API No. 30-015-26105). The release footprint is located in Public Land Survey System (PLSS) Unit Letter G, Section 5, Township 26 South, Range 28 East, in Eddy County, New Mexico (Site). The approximate release point occurred at coordinates 32.073164°, -104.107191°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report, the release was discovered on June 27, 2011. The C-141 reports that the release was caused when a faulty check valve and ball valve at the wellhead caused produced water to flow back to the tanks. Approximately 40 barrels (bbls) of produced water were released and approximately 35 bbls of produced water were recovered. The release remained within the berm of the oil and gas lease pad, as indicated in Figure 3. The NMOCD approved the initial C-141 on July 7, 2011, and subsequently assigned the release the Incident ID nMLB1121352991 and the remediation permit (RP) number 2RP-805. The initial C-141 form is included in Appendix A.

VISUAL SITE INSPECTION

According to the NMOCD online well records, the SRO SWD #101 well (API No. 30-015-26105) was plugged on June 23, 2017 and a final inspection of the Site was conducted on May 31, 2019 following reclamation of the pad. Concho reported the Site was remediated per NMOCD regulations at the time of the pad reclamation. The final inspection was approved by NMOCD on May 31, 2019, and the well site is listed as released in the NMOCD online well records. The final inspection report is presented in Appendix B.

Tetra Tech personnel visited the site on September 22, 2021, to document current site conditions. At the time of the site visit, all equipment had been removed and the former pad had been reclaimed as reported.

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No surface staining or odor was observed in the vicinity of the former tanks, and some vegetative growth was observed throughout the former pad extent. Photographic documentation of the visual inspection is presented in Appendix C.

FEBRUARY 2022 CLOSURE REQUEST

A Release Characterization, Reclamation Work Plan, and Closure Request (Closure Request) describing the Site history and visual inspection results was prepared by Tetra Tech on behalf of ConocoPhillips and submitted to the NMOCD via the online fee portal on February 18, 2022 under the PO Number PVARC-220218-C-1410. The Closure Request was rejected by Bradford Billings of the NMOCD via email on Monday, March 7, 2022. Regulatory correspondence is included in Appendix D.

The reason for the rejection was as follows:

- *"DTW not adequately defined. Can find no report by Concho detailing remedial efforts, despite on site closure by inspector.*
- *90 days from 3/7/22 are allowed to complete site investigation and submit closure or remedial plan"*

SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, playa lakes, 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 medium karst potential.

There are no water wells listed in the New Mexico Office of the State Engineer (NMOSE) database located within approximately ½ mile (800 meters) of the site. According to data from one (1) water well listed in the NMOSE database within approximately 1.86 miles (3,000 meters) of the site, the minimum depth to groundwater is 90 feet below ground surface (bgs).

To comply with the NMOCD directive presented in the March 7, 2022 email, a licensed well drilling subcontractor was onsite on March 15, 2022 to drill a groundwater determination borehole (DTW-1) to 55 feet bgs at the southeastern edge of the SRO 5 State CTB lease pad, located approximately ½ mile east of the release Site. The borehole location is indicated on Figure 3. The borehole was temporarily set and screened using 2-inch PVC well materials: 20 feet of blank casing and 35 feet of 0.010" slotted screen. The borehole was left for 72 hours and checked for the presence of groundwater. The borehole was dry upon drilling, and no water was present in the well after 72 hours. The well screen and casing were removed, and the borehole was plugged with 3/8-inch bentonite chips. The site characterization data, boring log, and temporary well diagram are presented 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, established depth to groundwater, and in accordance with Table I of 19.15.29.12 NMAC, the RRALs for the Site are as follows:

Constituent	Site RRALs
Chloride	10,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 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	100 mg/kg
BTEX	50 mg/kg

SITE ASSESSMENT

Based on the directive provided by NMOCD, Tetra Tech returned to the Site on March 30, 2022 to conduct assessment activities on behalf of ConocoPhillips. Five assessment borings (BH-1 through BH-5) were installed using an air rotary drill rig to complete delineation of the release. Boring BH-1 was installed to 30 feet bgs in the footprint of the former tank battery to achieve vertical delineation of the release. Borings BH-2 through BH-5 were installed to the north, east, south, and west of the former tank battery location to achieve horizontal delineation of the release. Additionally, one background boring location (BG-1) was installed in the pasture approximately 210 feet south of the former tank battery location to establish background chloride concentrations.

A total of thirty-six (36) samples were collected from the five assessment borings and one background boring and submitted to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for TPH by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by method SM4500Cl-B. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix F. The sample locations are shown on Figure 4.

SUMMARY OF RESULTS

The laboratory analytical results from the March 2022 assessment are summarized in Table 1. Analytical results associated with the 0-1 ft bgs sample interval at BH-1 and the 0-1 ft bgs and 2-3 ft bgs sample intervals at BH-2 exceeded the Site reclamation limit for chloride (600 mg/kg). There were no other analytical results which exceeded the applicable Site reclamation limits or RRALs for any of the analyzed constituents. The area was vertically delineated to the background chloride levels, as indicated by the analytical results for BG-1.

SITE RECLAMATION AND RESTORATION PLAN

The analytical results indicate that remediation of the documented release was previously conducted at the Site, and that the chloride levels present in surface soils at boring locations BH-1 and BH-2 are related to the former pad material and general operations. However, given that surface soils in the former pad area exceed the Site reclamation limit of 600 mg/kg for chloride, further reclamation work is warranted to meet the Site reclamation limits and establish uniform vegetative cover that reflects a life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels.

ConocoPhillips proposes to remove the impacted material as shown in Figure 5. The area around boring BH-1 will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a depth of 2 feet and the area around BH-2 will be excavated to a depth of 3 feet below the surrounding surface. Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility and the excavation will be backfilled with clean material to surface grade. The estimated volume of material to be excavated for reclamation purposes is 1,600 cubic yards.

Re-seeding of the Site is recommended to aid in revegetation. Coordination with the New Mexico State Land Office (NMSLO) as the landowner will be conducted prior to commencement of the proposed Site restoration activities. The backfilled and otherwise unvegetated areas of the lease pad will be ripped (once each way), seeded, and the dozer track imprinted to aid in revegetation. Areas of the pad exhibiting

recolonization and a self-sustaining plant community will be left undisturbed. Based on soils at the Site, NMSLO Loam (L) Sites Seed Mixture 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 NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The NMSLO seed mixture details and corresponding pounds pure live seed per acre are included in Appendix G.

CONCLUSION

Based on the results of the March 2022 soil assessment results, ConocoPhillips respectfully requests closure of the SRO SWD #101 Tank Release (nMLB1121352991; 2RP-805). With concurrent approval to be obtained from the NMSLO, ConocoPhillips proposes to begin the additional proposed site restoration activities in the first favorable growing season following NMOCD and NMSLO approval.

If you have any questions concerning the requested release closure or the proposed additional site restoration activities for the Site, please call me at (512) 739-7874 or Christian at (512) 338-2861.

Sincerely,
Tetra Tech, Inc.

Samantha K. Abbott, P.G.
Project Geologist

Christian M. Llull, P.G.
Program Manager

cc:
Mr. Charles Beauvais, BU – ConocoPhillips
Mr. Ryan Mann, District Resource Manager – New Mexico State Land Office

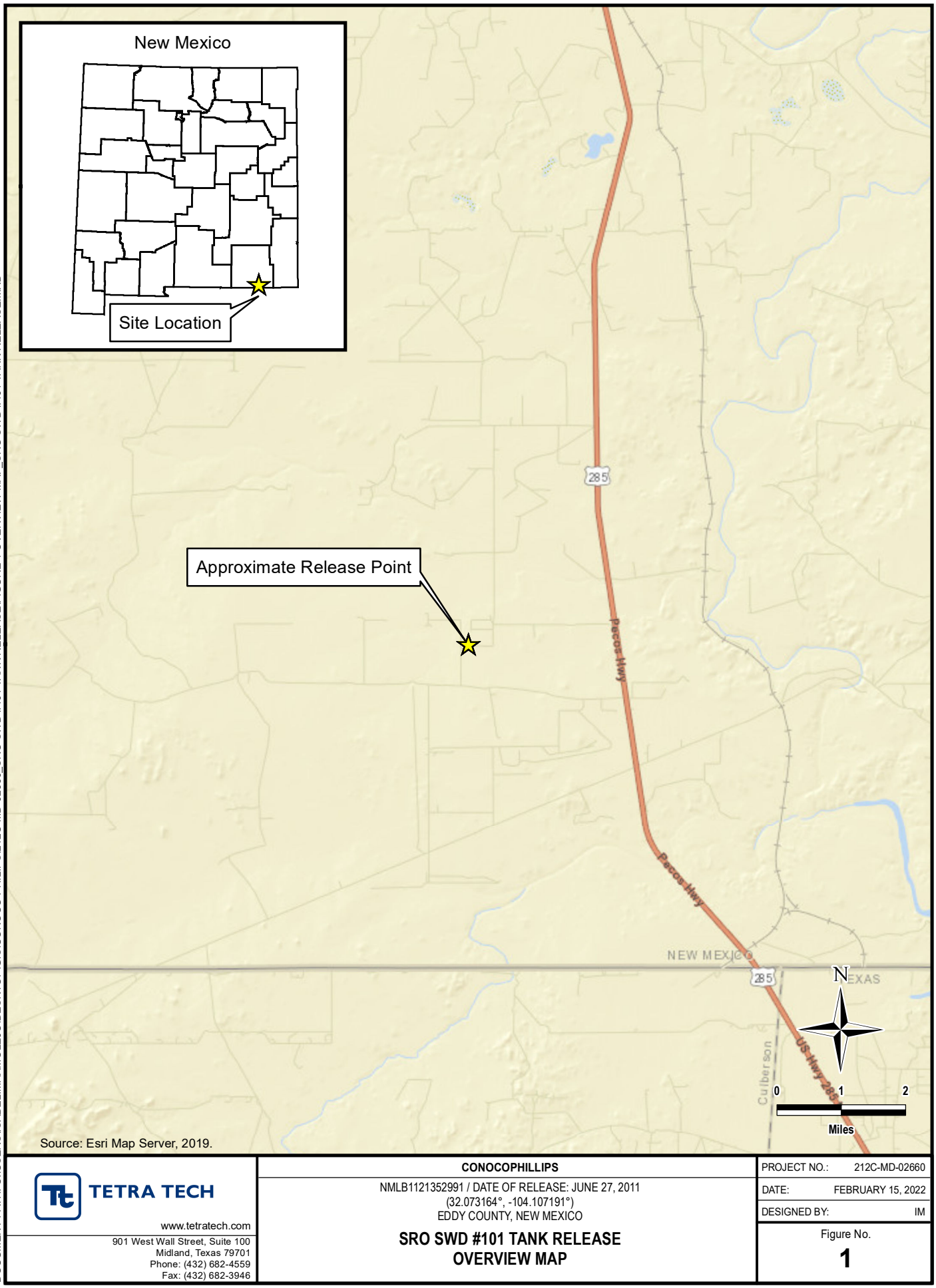
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



DOCUMENT PATH: C:\USERS\ISABEL.MARMOLEJO\DESKTOP\GIS\CONOCO PHILIPS\212C-MD-02660_SRO SWD #101 TANK RELEASE\FIGURE 1 OVERVIEW MAP_SRO SWD #101 TANK RELEASE.MXD

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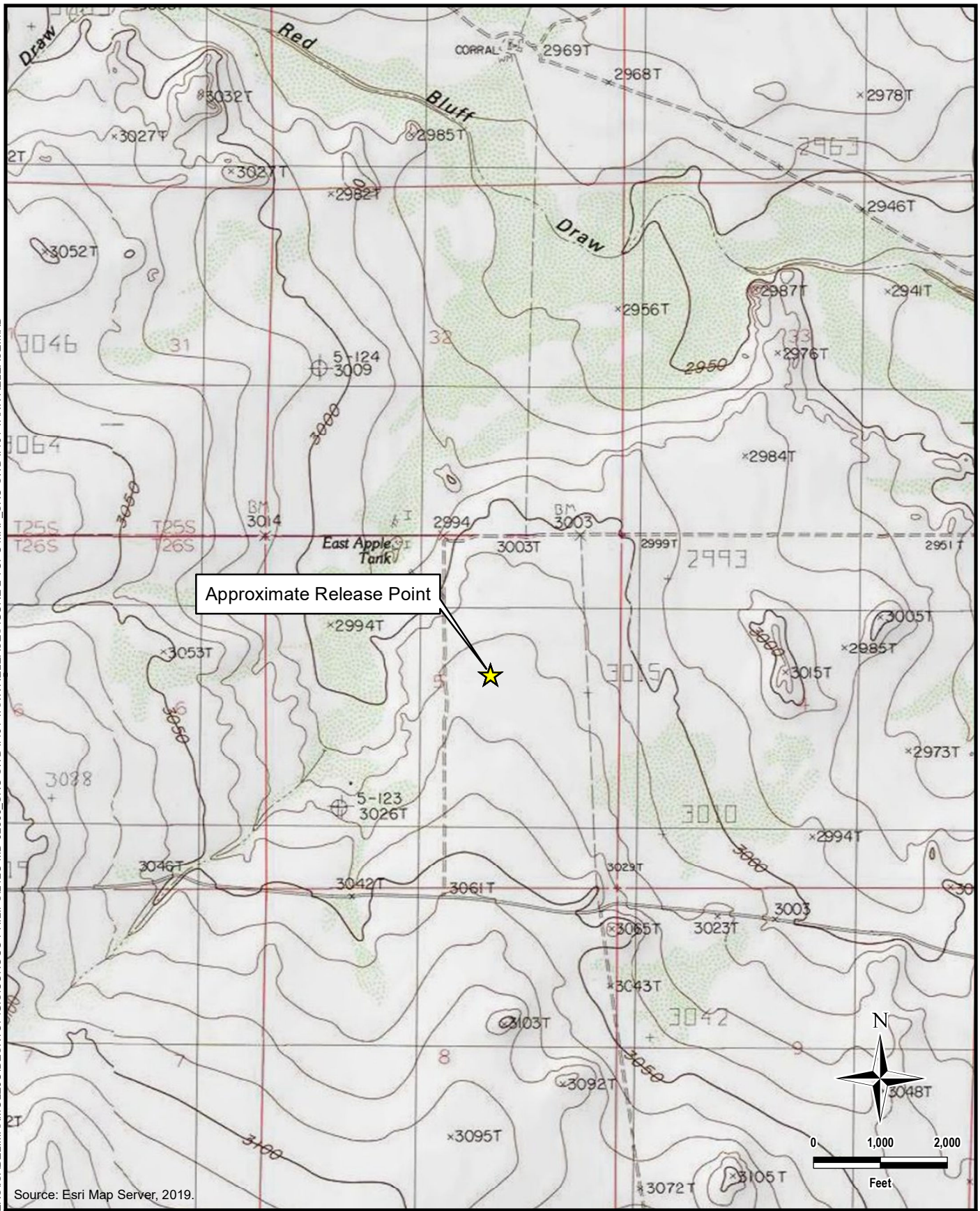
CONOCOPHILLIPS

NMLB1121352991 / DATE OF RELEASE: JUNE 27, 2011
(32.073164°, -104.107191°)
EDDY COUNTY, NEW MEXICO

SRO SWD #101 TANK RELEASE
OVERVIEW MAP

PROJECT NO.:	212C-MD-02660
DATE:	FEBRUARY 15, 2022
DESIGNED BY:	IM

Figure No.
1



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CONOCOPHILLIPS

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(32.073164°, -104.107191°)
EDDY COUNTY, NEW MEXICO

SRO SWD #101 TANK RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02660
DATE:	FEBRUARY 15, 2022
DESIGNED BY:	IM

Figure No.
2

DOCUMENT PATH: C:\USERS\ISABEL.MARMOLEJO\DESKTOP\GIS\CONOCO PHILIPS\212C-MD-02660_SRO SWD #101 TANK RELEASE\FIGURE 3 SITE LOCATION – 2013 AERIAL IMAGE_SRO SWD #101 TANK RELEASE.MXD

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NMLB1121352991 / DATE OF RELEASE: JUNE 27, 2011
(32.073164°, -104.107191°)
EDDY COUNTY, NEW MEXICO

SRO SWD #101 TANK RELEASE
SITE LOCATION MAP – 2013 AERIAL IMAGE

PROJECT NO.:	212C-MD-02660
DATE:	FEBRUARY 15, 2022
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Figure No.
3

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\SRO_SWD\FIGURE 4 SITE VICINITY_SRO SWD 101.MXD

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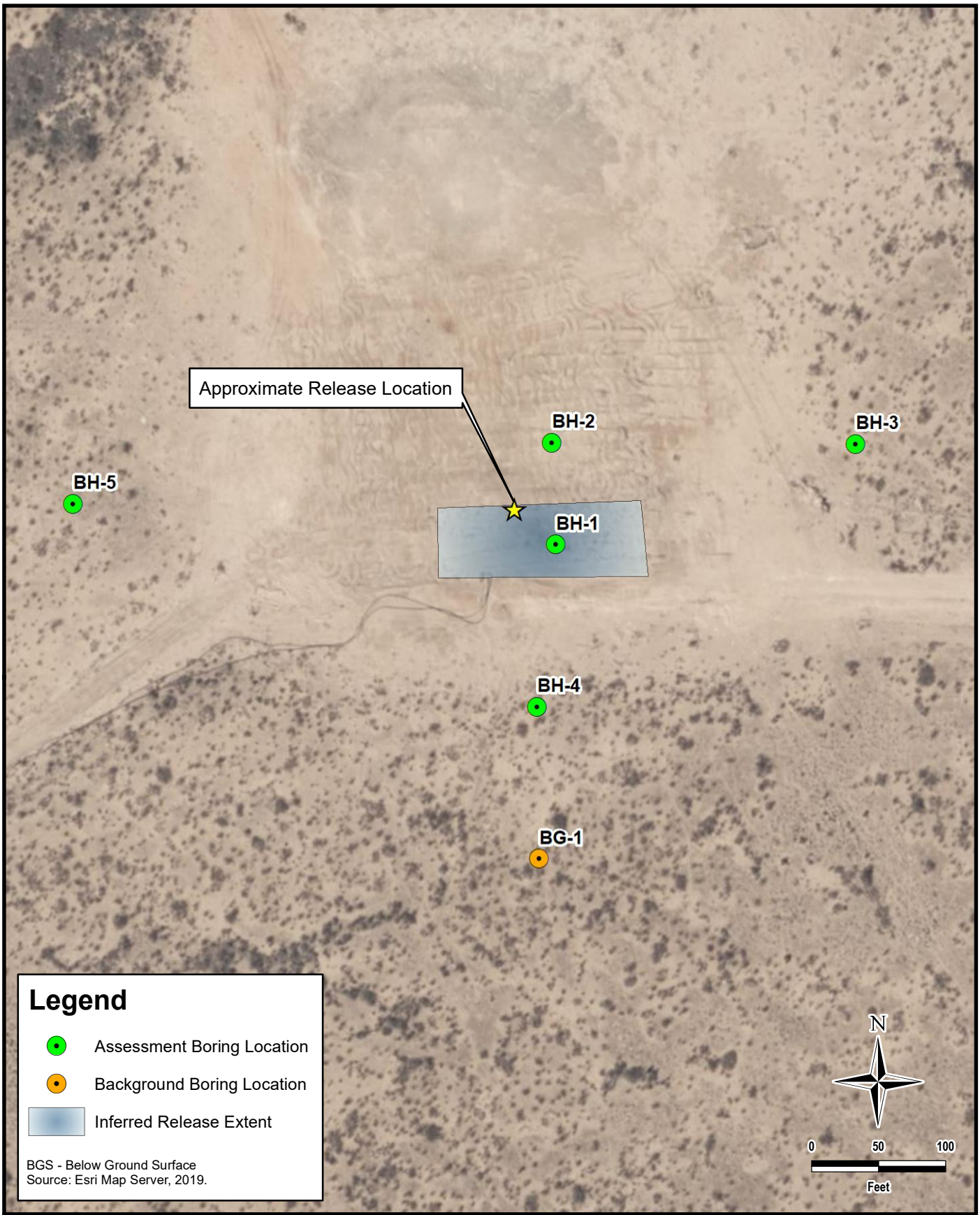
CONOCOPHILLIPS

NMLB1121352991
(32.073164°, -104.107191°)
EDDY COUNTY, NEW MEXICO

SRO SWD #101 TANK RELEASE
SITE VICINITY MAP

PROJECT NO.:	212C-MD-02725
DATE:	APRIL 11, 2022
DESIGNED BY:	AAM

Figure No.
4



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\SRO_SWD\FIGURE 5 ASSESSMENT_SRO SWD 101.MXD

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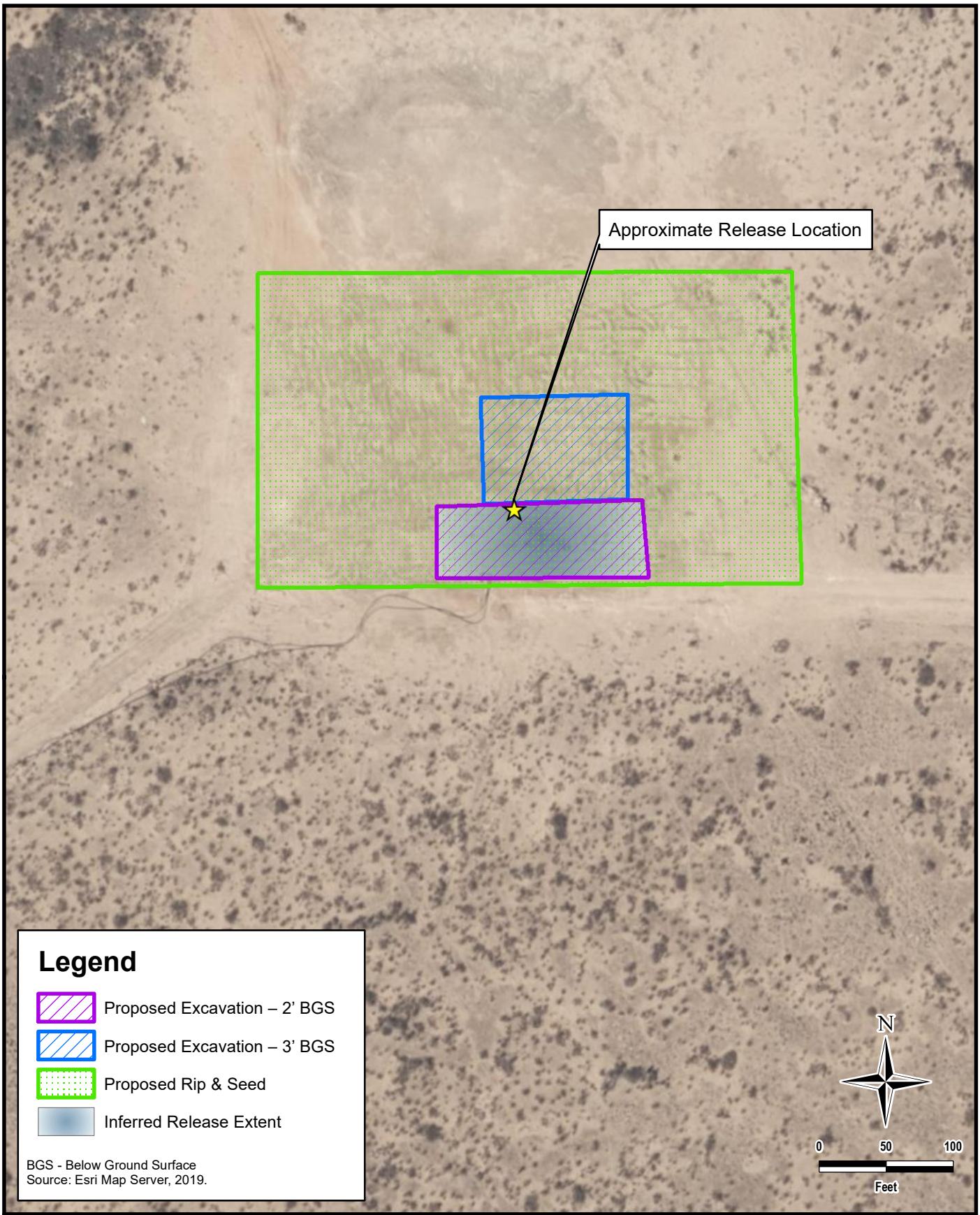
CONOCOPHILLIPS

NMLB1121352991
(32.073164°, -104.107191°)
EDDY COUNTY, NEW MEXICO

SRO SWD #101 TANK RELEASE
INFERRED RELEASE EXTENT AND RELEASE ASSESSMENT MAP

PROJECT NO.:	212C-MD-02725
DATE:	APRIL 11, 2022
DESIGNED BY:	AAM

Figure No.
5



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\SRO_SWD\FIGURE 6 REMEDIAL_SRO SWD 101.MXD

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CONOCOPHILLIPS

NMLB1121352991
(32.073164°, -104.107191°)
EDDY COUNTY, NEW MEXICO

SRO SWD #101 TANK RELEASE
PROPOSED RECLAMATION EXTENT

PROJECT NO.:	212C-MD-02725
DATE:	APRIL 11, 2022
DESIGNED BY:	AAM

Figure No.
6

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT- NMLB1121352991/2RP-805
HERITAGE CONCHO
SRO SWD #101 TANK RELEASE ASSESSMENT
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride[1]		BTEX[2]										TPH[3]							
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
			Chloride	PID													C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
BH-1	3/30/2022	0-1	1,510	-	***720***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		45.8		20.9		66.7
		1-2	959	-	192		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	1,190	-	144		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		3-4	1,130	-	144		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		5-6	1,290	-	224		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		7-8	1,520	-	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	1,500	-	224		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		14-15	1,610	-	1,070		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		19-20	2,060	-	1,710		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		24-25	2,350	-	1,200		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		29-30	1,880	-	1,680		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
BH-2	3/30/2022	0-1	1,910	-	***912***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	2,120	-	***1,150***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		4-5	1,750	-	624		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		6-7	1,490	-	576		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	1,510	-	576		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
BH-3	3/30/2022	0-1	987	-	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	1,260	-	176		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		4-5	1,310	-	432		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		6-7	2,010	-	1,010		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	2,480	-	1,630		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
BH-4	3/30/2022	0-1	1,020	-	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	989	-	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		4-5	1,380	-	944		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		6-7	2,250	-	1,760		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	2,440	-	2,110		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
BH-5	3/30/2022	0-1	1,750	-	80.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	1,020	-	128		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		4-5	1,330	-	400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		6-7	1,880	-	640		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	1,710	-	576		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
BG-1	3/30/2022	0-1	536	-	80.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	1,100	-	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		4-5	1,040	-	96.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		6-7	1,560	-	720		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	1,940	-	1,070		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

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

Shaded rows indicate intervals proposed for excavation.

QUALIFIERS:

APPENDIX A
C-141 Forms

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

RECEIVED
JUL 05 2011
NMOCD ARTESIA

Form C-141
Revised October 10, 2003

Submit 2 copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

nMLB1121352991 229137

OPERATOR ☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	SRO SWD #101	Facility Type	Salt Water Disposal

Surface Owner	Mineral Owner	Lease No. (API#)
State		30-015-26105

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	5	26S	28E					Eddy

Latitude 32 04.392 **Longitude** 104 06.434

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 40bbls	Volume Recovered 35bbls
Source of Release Water tank	Date and Hour of Occurrence 06/27/2011	Date and Hour of Discovery 06/27/2011 12:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher—OCD	
By Whom? Josh Russo	Date and Hour 06/27/2011 2:38 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The well was flowing back to the tanks due to a faulty check valve and ball valve at the wellhead. The well has been shut in and the appropriate repairs have been made.

Describe Area Affected and Cleanup Action Taken.*

Initially 40bbls of produced water was released from the water tank and we were able to recover 35bbls with a vacuum truck. The entire release was contained inside the berm walls of the facility and all free fluids have been recovered. The contaminated material will be removed and hauled to disposal. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

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

Signature:

Printed Name: Josh Russo

Title: HSE Coordinator

E-mail Address: jrusso@conchoresources.com

Date: 07/05/2011 Phone: 432-212-2399

OIL CONSERVATION DIVISION

Approved by District Supervisor: Signed By Mike Bratcher

Approval Date: 8/1/2011 Expiration Date:

Conditions of Approval: Attached ☐

Remediation per OCD Rules & Guidelines. SUBMIT REMEDIATION PROPOSAL NOT LATER THAN: 9/1/2011

2RP-805

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Charles R. Beauvais II Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B
NMOCD Final Inspection Report

Submit One Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

RECEIVED
MAY 30 2019
DISTRICT II-ARTESIA O.C.D.

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised November 3, 2011

WELL API NO. 30-015-26105	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No.	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other **SWD**	7. Lease Name or Unit Agreement Name SRO SWD
	8. Well Number 101
2. Name of Operator COG Operating LLC	9. OGRID Number 229137
3. Address of Operator 2208 W Main Artesia NM 88210	10. Pool name or Wildcat SWD; Delaware
4. Well Location Unit Letter G : 1980 feet from the North line and 1980 feet from the East line Section 5 Township 26S Range 28E NMPM County Eddy	
	11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3026' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: ☐		☒ **Location is ready for OCD inspection after P&A**	

☒ All pits have been remediated in compliance with OCD rules and the terms of the Operator's pit permit and closure plan.
☒ Rat hole and cellar have been filled and leveled. Cathodic protection holes have been properly abandoned.
☒ A steel marker at least 4" in diameter and at least 4' above ground level has been set in concrete. It shows the

OPERATOR NAME, LEASE NAME, WELL NUMBER, API NUMBER, QUARTER/QUARTER LOCATION OR UNIT LETTER, SECTION, TOWNSHIP, AND RANGE. All INFORMATION HAS BEEN WELDED OR PERMANENTLY STAMPED ON THE MARKER'S SURFACE.

☒ The location has been leveled as nearly as possible to original ground contour and has been cleared of all junk, trash, flow lines and other production equipment.
☒ Anchors, dead men, tie downs and risers have been cut off at least two feet below ground level.
☒ If this is a one-well lease or last remaining well on lease, the battery and pit location(s) have been remediated in compliance with OCD rules and the terms of the Operator's pit permit and closure plan. All flow lines, production equipment and junk have been removed from lease and well location.
☒ All metal bolts and other materials have been removed. Portable bases have been removed. (Poured onsite concrete bases do not have to be removed.)
☒ All other environmental concerns have been addressed as per OCD rules.
☒ Pipelines and flow lines have been abandoned in accordance with 19.15.35.10 NMAC. All fluids have been removed from non-retrieved flow lines and pipelines.
☒ If this is a one-well lease or last remaining well on lease: all electrical service poles and lines have been removed from lease and well location, except for utility's distribution infrastructure.

When all work has been completed, return this form to the appropriate District office to schedule an inspection.

SIGNATURE _____ TITLE: Regulatory Technician DATE: 5/28/2019

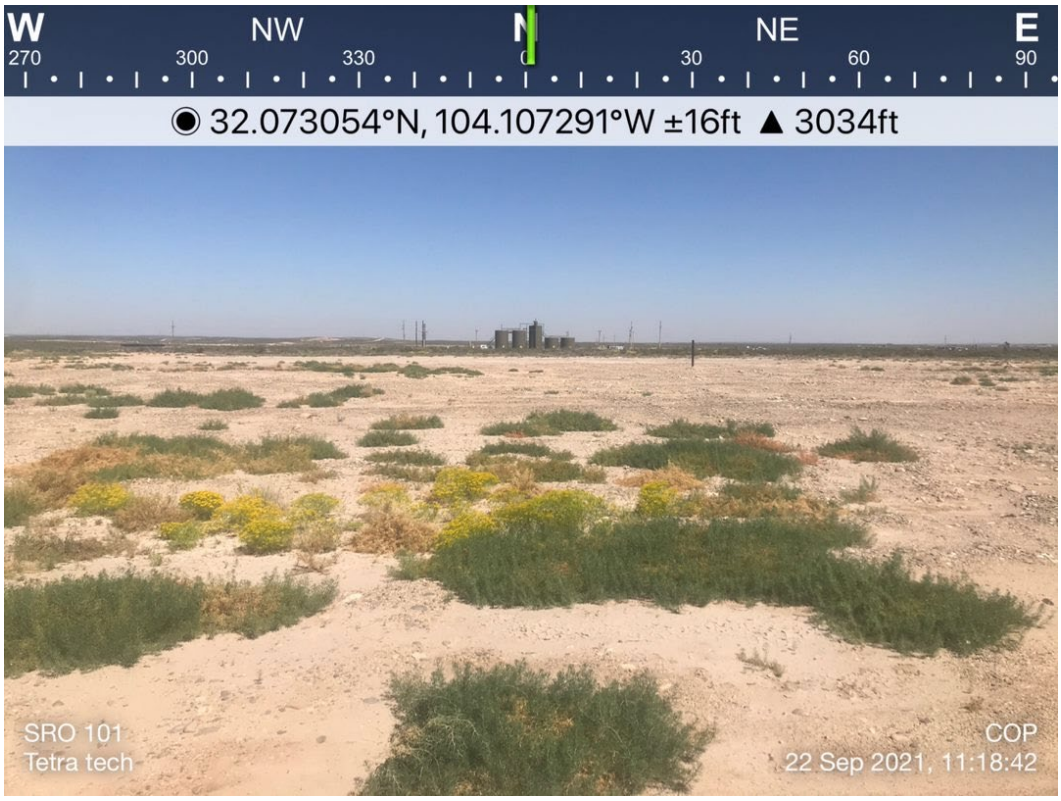
TYPE OR PRINT NAME: Delilah Flores E-MAIL: dflores2@concho.com PHONE: 575-748-6946

For State Use Only

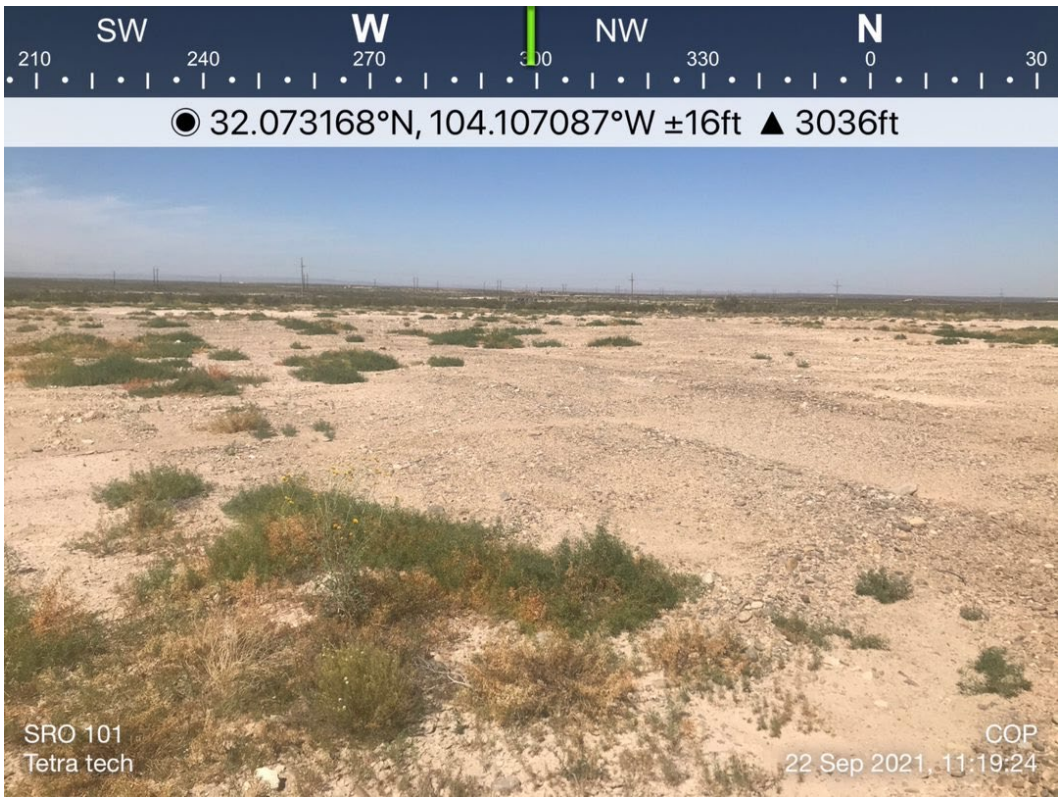
APPROVED BY: _____ TITLE Staff Mgr DATE 5/31/19

Conditions of Approval (if any):

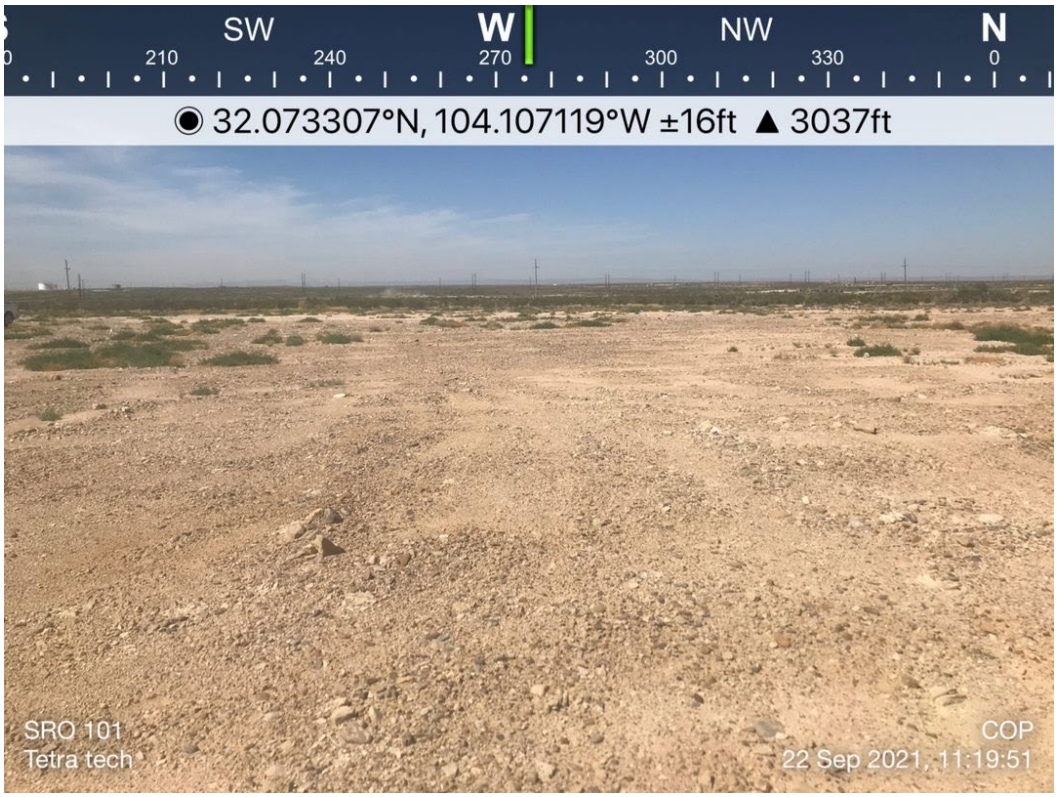
APPENDIX C
Photographic Documentation



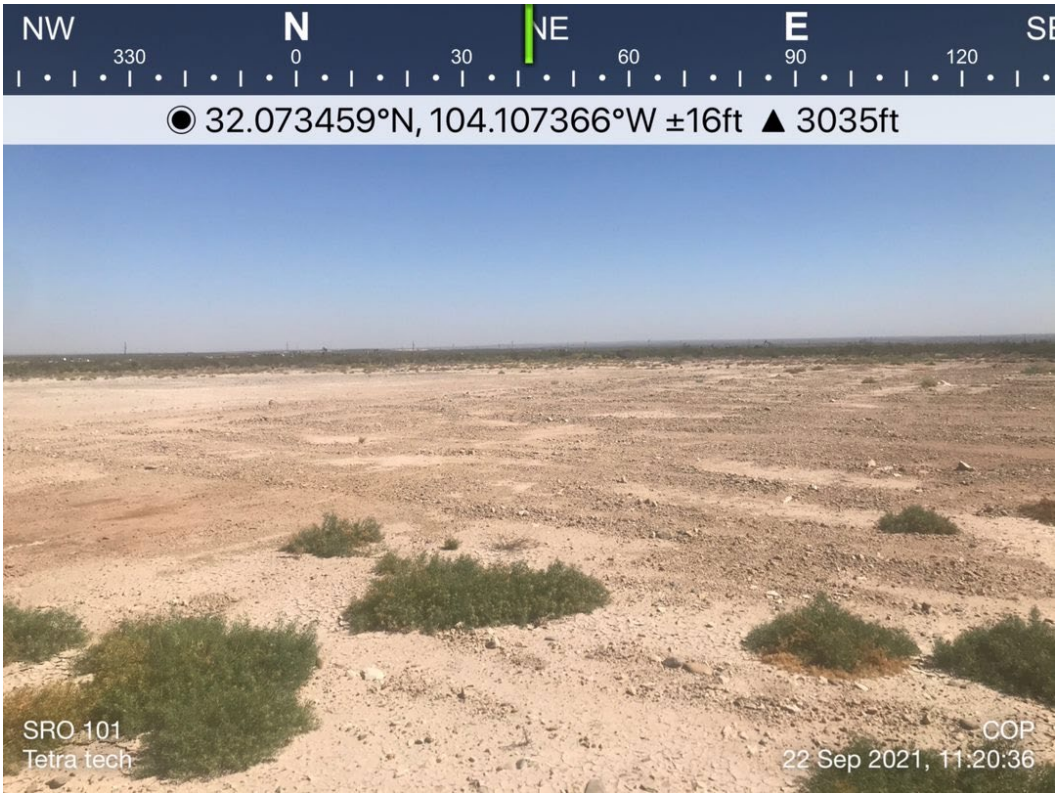
TETRA TECH, INC. PROJECT NO. 212C-MD-02725	DESCRIPTION	View north of the release area.	1
	SITE NAME	HConcho - SRO SWD #101 (P&A)	9/22/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02725	DESCRIPTION	View northwest of the release area.	2
	SITE NAME	HConcho - SRO SWD #101 (P&A)	9/22/2021

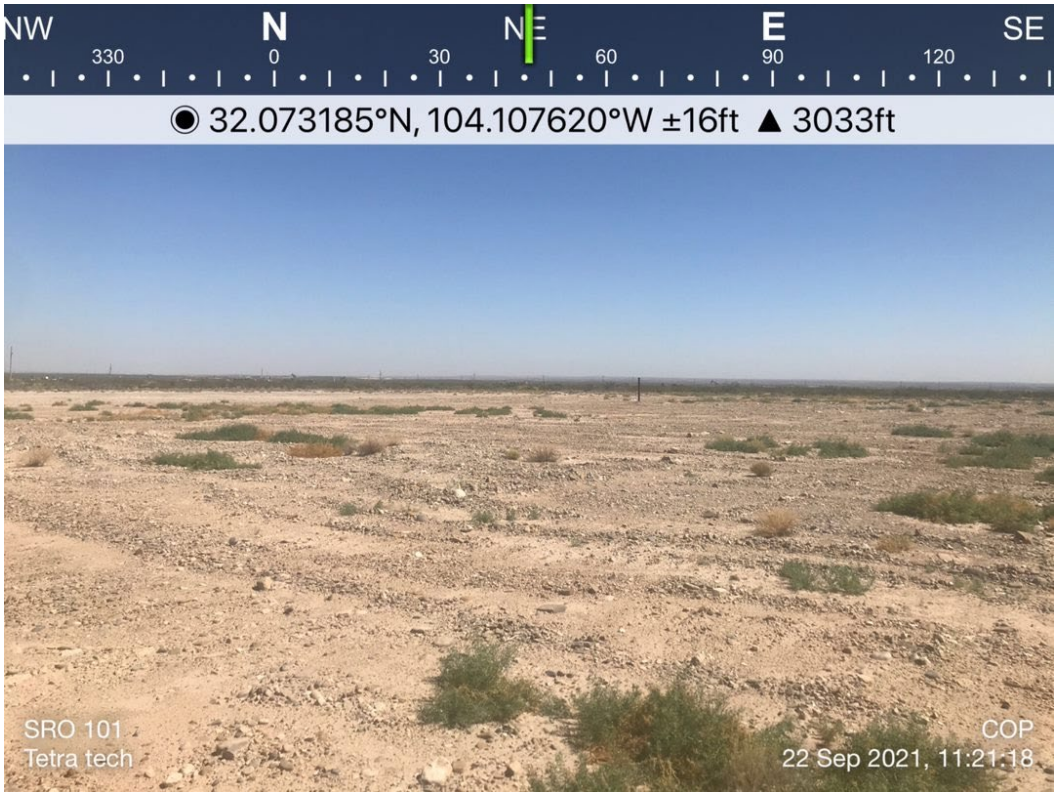


TETRA TECH, INC. PROJECT NO. 212C-MD-02725	DESCRIPTION	View west of the release area.	3
	SITE NAME	HConcho - SRO SWD #101 (P&A)	9/22/2021



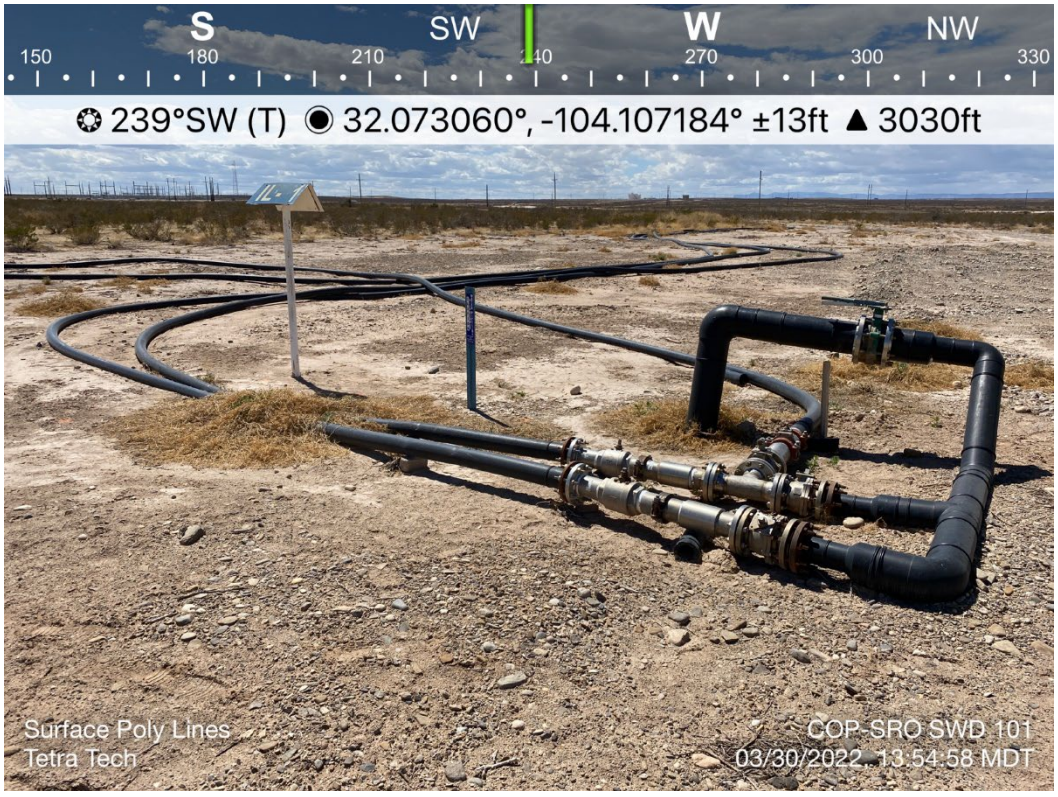
TETRA TECH, INC. PROJECT NO. 212C-MD-02725	DESCRIPTION	View northeast of the release area.	4
	SITE NAME	HConcho - SRO SWD #101 (P&A)	9/22/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02725	DESCRIPTION	View east southeast of the release area.	5
	SITE NAME	HConcho - SRO SWD #101 (P&A)	9/22/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02725	DESCRIPTION	View northeast of the release area.	6
	SITE NAME	HConcho - SRO SWD #101 (P&A)	9/22/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02725	DESCRIPTION	View north of surface poly lines in the southern portion of the release area.	7
	SITE NAME	HConcho - SRO SWD #101 (P&A)	3/30/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02578	DESCRIPTION	View southwest of surface poly lines in the southern portion of the release area.	8
	SITE NAME	HConcho - SRO SWD #101 (P&A)	3/30/2022

APPENDIX D
Regulatory Correspondence

From: OCDOnline@state.nm.us
To: Llull, Christian
Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 82711
Date: Monday, March 7, 2022 2:54:25 PM

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

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nMLB1121352991,
for the following reasons:

- **DTW not adequately defined. Can find no report by Concho detailing remedial efforts, despite on site closure by inspector.**
- **90 days from 3/7/22 are allowed to complete site investigation and submit closure or remdial plan**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 82711.
Please review and make the required correction(s) prior to resubmitting.
If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Bradford Billings
Hydrologist/E.Spec.A
505-670-6549
bradford.billings@state.nm.us

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

APPENDIX E
Site Characterization Data

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-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02478	CUB	ED	2	1		05	26S	28E	583848	3549325*	599	100		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 584265 **Northing (Y):** 3548894 **Radius:** 800

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

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-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02478	CUB	ED	2	1	05	26S	28E	583848	3549325*		599	100		
C 02477	CUB	ED	1	1	03	26S	28E	586687	3549347*		2463	150		
C 01278	C	ED	4	3	28	25S	28E	585470	3551338*		2724	205	90	115

Average Depth to Water: **90 feet**

Minimum Depth: **90 feet**

Maximum Depth: **90 feet**

Record Count: 3

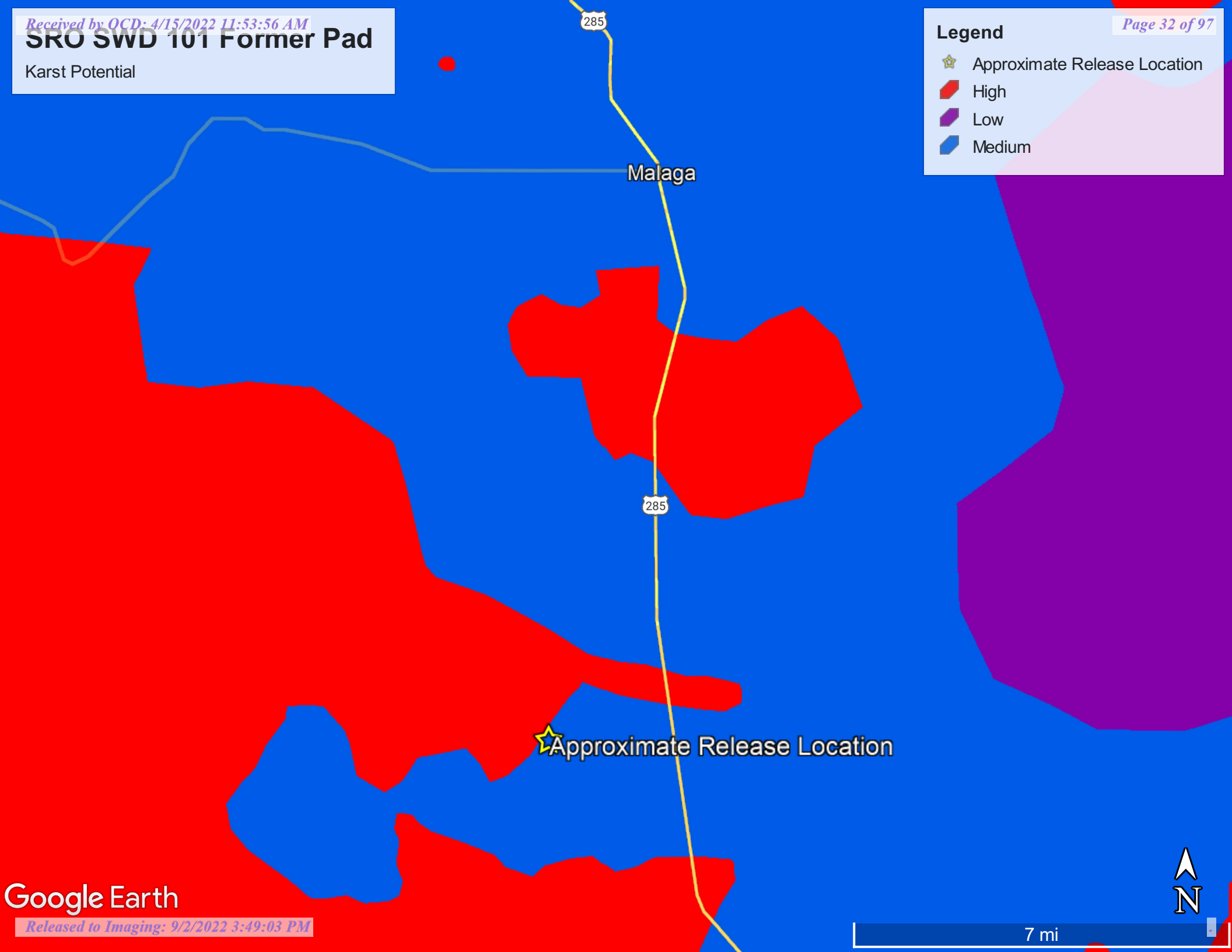
UTMNAD83 Radius Search (in meters):

Easting (X): 584265 **Northing (Y):** 3548894 **Radius:** 3000

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

SRO SWD 101 Former Pad

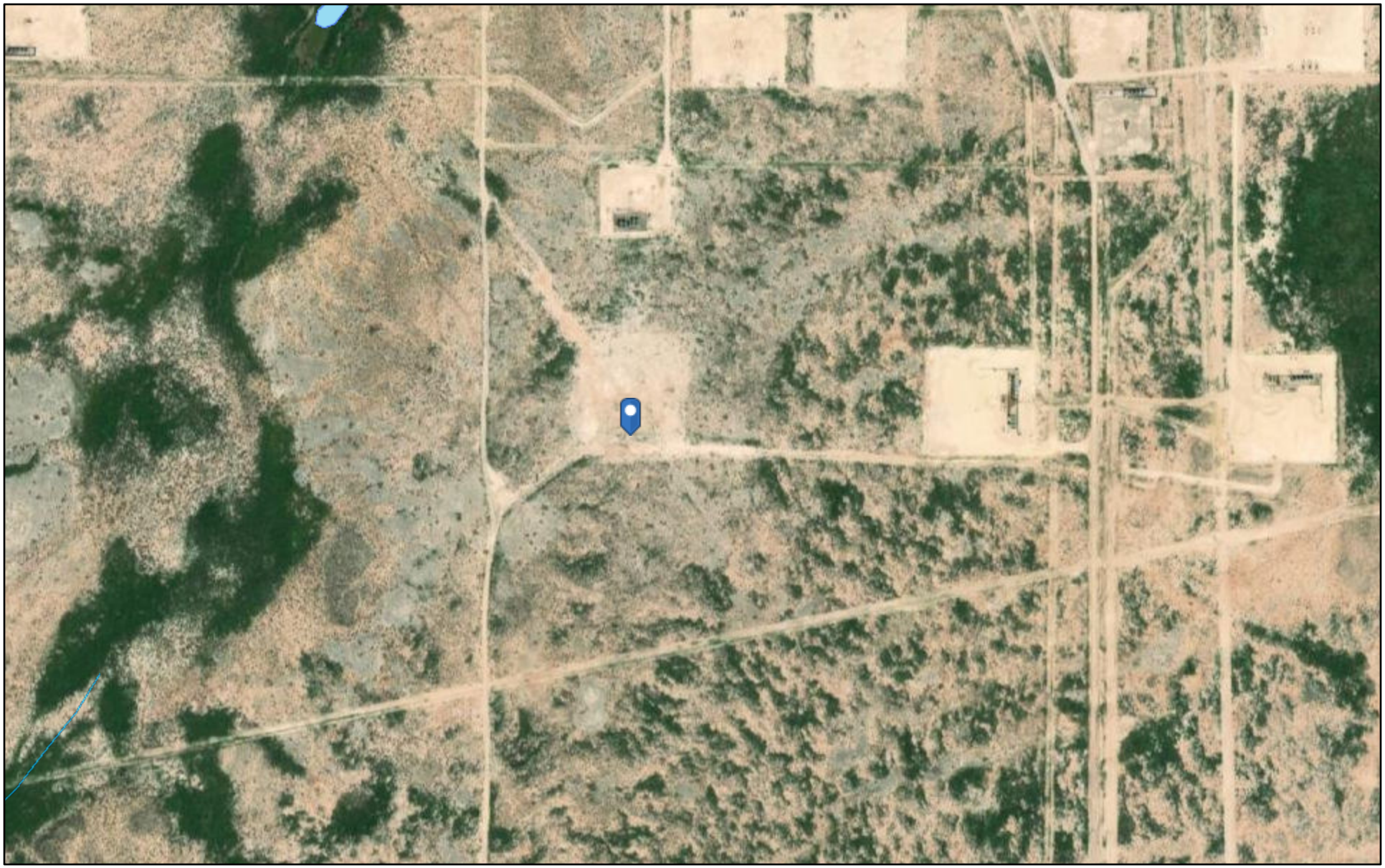
Karst Potential



Legend

- Approximate Release Location
- High
- Low
- Medium

OCD Water Bodies



1/11/2022, 1:06:19 PM

OCD District Offices

PLJV Probable Playas

OSE Water-bodies

OSE Streams

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

OCD, Maxar

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

212C-MD-02660 | TETRA TECH | **LOG OF BORING DTW-1** | Page 1 of 1

Project Name: SRO SWD #101

Borehole Location: GPS: 32.072938°, -104.101518° | Surface Elevation (ft): 3009

Borehole Number: DTW-1 | Borehole Diameter (in.): 3 | Date Started: 3/15/2022 | Date Finished: 3/15/2022

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft | 24 Hours After Completion of Drilling ▽ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPES	SAMPLE	STANDARD PENETRATION TEST SPT	PID (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	WELL DIAGRAM
0												**-SM-** SILTY SAND: Pale Brown, dry	1	
												-SM- SILTY SAND: Pale Brown, with angular to subangular Gravel, dry.	2	
												-SM- SILTY SAND: Light Reddish Brown, dry.	3	
5												**-SM-** SILTY SAND: Light Reddish Brown, with angular to subangular Gravel, dry.	4	
												-SM- SILTY SAND: Reddish Brown, with angular to subangular Gravel, dry.		
10														4" Schedule 40 PVC Casing
15													15	
												-CL- CLAY: Brown, trace Sand, dry to moist.		
20													20	
												-CL- CLAY: Grayish Brown, trace Sand, dry to moist.		
25													25	
												-SANDSTONE- SANDSTONE: Gray, fine to medium grained, weakly to moderately cemented, dry.		
30														
35														
														4" Schedule 40 PVC Slotted Screen (0.010")
40														
45														
50														
55													55	

Bottom of borehole at 55.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Sonic

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Hollow Stem Auger, HSA

Notes:
Surface elevation is an estimated value based on Google Earth data.

Logger: Nicholas Poole | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

APPENDIX F
Laboratory Analytical Data

CARDINAL Laboratories

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

April 06, 2022

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: SRO SWD 101 FORMER PAD

Enclosed are the results of analyses for samples received by the laboratory on 03/31/22 12:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (0-1') (H221290-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2022	ND	2.01	101	2.00	0.222	
Toluene*	<0.050	0.050	04/02/2022	ND	2.03	101	2.00	0.315	
Ethylbenzene*	<0.050	0.050	04/02/2022	ND	1.95	97.5	2.00	1.33	
Total Xylenes*	<0.150	0.150	04/02/2022	ND	6.06	101	6.00	1.49	
Total BTEX	<0.300	0.300	04/02/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**720**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	**45.8**	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	**20.9**	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *93.1 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *104 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (1'-2') (H221290-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2022	ND	2.01	101	2.00	0.222	
Toluene*	<0.050	0.050	04/02/2022	ND	2.03	101	2.00	0.315	
Ethylbenzene*	<0.050	0.050	04/02/2022	ND	1.95	97.5	2.00	1.33	
Total Xylenes*	<0.150	0.150	04/02/2022	ND	6.06	101	6.00	1.49	
Total BTEX	<0.300	0.300	04/02/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *87.3 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *94.2 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (2'-3') (H221290-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2022	ND	2.01	101	2.00	0.222	
Toluene*	<0.050	0.050	04/02/2022	ND	2.03	101	2.00	0.315	
Ethylbenzene*	<0.050	0.050	04/02/2022	ND	1.95	97.5	2.00	1.33	
Total Xylenes*	<0.150	0.150	04/02/2022	ND	6.06	101	6.00	1.49	
Total BTEX	<0.300	0.300	04/02/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *103 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *111 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (3'-4') (H221290-04)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *122 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *132 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (5'-6') (H221290-05)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *122 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *132 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (7'-8') (H221290-06)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *109 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (9'-10') (H221290-07)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *113 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (14'-15') (H221290-08)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1070**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *109 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *118 %* *59.5-142*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (19'-20') (H221290-09)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1710**	16.0	04/04/2022	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	04/01/2022	ND	202	101	200	3.34	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	194	97.0	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *98.7 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *108 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (24'-25') (H221290-10)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1200**	16.0	04/04/2022	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	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *100 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *109 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 1 (29'-30') (H221290-11)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1680**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *95.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *104 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 2 (0-1') (H221290-12)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**912**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *103 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *110 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 2 (2'-3') (H221290-13)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1150**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *107 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *114 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 2 (4'-5') (H221290-14)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**624**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *99.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *107 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 2 (6'-7') (H221290-15)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *106 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *114 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 2 (9'-10') (H221290-16)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *112 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 3 (0-1') (H221290-17)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *109 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 3 (2'-3') (H221290-18)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *114 %* *59.5-142*

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CARDINAL Laboratories

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 3 (4'-5') (H221290-19)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**432**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *106 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *116 %* *59.5-142*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 3 (6'-7') (H221290-20)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1010**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *95.5 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *103 %* *59.5-142*

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CARDINAL Laboratories

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 3 (9'-10') (H221290-21)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/01/2022	ND	1.99	99.4	2.00	0.442	
Toluene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.658	
Ethylbenzene*	<0.050	0.050	04/01/2022	ND	2.02	101	2.00	0.883	
Total Xylenes*	<0.150	0.150	04/01/2022	ND	6.23	104	6.00	0.598	
Total BTEX	<0.300	0.300	04/01/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1630**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *100 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *109 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 4 (0-1') (H221290-22)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *94.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *101 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 4 (2'-3') (H221290-23)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *114 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

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Fax To: (432) 682-3946

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 4 (4'-5') (H221290-24)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**944**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *103 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *112 %* *59.5-142*

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 4 (6'-7') (H221290-25)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1760**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *110 %* *59.5-142*

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Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 4 (9'-10') (H221290-26)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2110**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *96.3 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *105 %* *59.5-142*

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 5 (0-1') (H221290-27)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *99.3 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *110 %* *59.5-142*

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Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 5 (2'-3') (H221290-28)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *115 %* *59.5-142*

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Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 5 (4'-5') (H221290-29)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	184	91.9	200	2.02	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	187	93.4	200	4.06	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *98.0 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *106 %* *59.5-142*

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Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 5 (6'-7') (H221290-30)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	04/04/2022	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2022	ND	189	94.6	200	3.12	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	186	92.9	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *80.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *85.4 %* *59.5-142*

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Fax To: (432) 682-3946

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BH - 5 (9'-10') (H221290-31)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	04/04/2022	ND	432	108	400	7.69	

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	04/01/2022	ND	189	94.6	200	3.12	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	186	92.9	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *87.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *91.9 %* *59.5-142*

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Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BG - 1 (0-1') (H221290-32)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	04/04/2022	ND	432	108	400	7.69	

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	04/01/2022	ND	189	94.6	200	3.12	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	186	92.9	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *88.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *89.3 %* *59.5-142*

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BG - 1 (2'-3') (H221290-33)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	04/04/2022	ND	432	108	400	7.69	

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	04/01/2022	ND	189	94.6	200	3.12	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	186	92.9	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *90.7 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *94.9 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BG - 1 (4'-5') (H221290-34)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	04/04/2022	ND	432	108	400	7.69	

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	04/01/2022	ND	189	94.6	200	3.12	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	186	92.9	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *89.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *94.3 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BG - 1 (6'-7') (H221290-35)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/03/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/03/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/03/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/03/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**720**	16.0	04/04/2022	ND	432	108	400	7.69	

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	04/01/2022	ND	189	94.6	200	3.12	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	186	92.9	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *87.5 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *92.2 %* *59.5-142*

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Analytical Results For:

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

Received:	03/31/2022	Sampling Date:	03/30/2022
Reported:	04/06/2022	Sampling Type:	Soil
Project Name:	SRO SWD 101 FORMER PAD	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02725	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: BG - 1 (9'-10') (H221290-36)

BTEX 8021B mg/kg Analyzed By: MS\

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/05/2022	ND	2.13	106	2.00	2.36	
Toluene*	<0.050	0.050	04/05/2022	ND	2.12	106	2.00	1.96	
Ethylbenzene*	<0.050	0.050	04/05/2022	ND	2.10	105	2.00	1.79	
Total Xylenes*	<0.150	0.150	04/05/2022	ND	6.51	108	6.00	1.65	
Total BTEX	<0.300	0.300	04/05/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1070**	16.0	04/04/2022	ND	432	108	400	7.69	

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	04/01/2022	ND	189	94.6	200	3.12	
DRO >C10-C28*	<10.0	10.0	04/01/2022	ND	186	92.9	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	04/01/2022	ND					

Surrogate: 1-Chlorooctane *84.5 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *88.3 %* *59.5-142*

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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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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1/4

Company Name:	ConocoPhillips
Project Manager:	~~Christian Llull~~ Sam Abbott
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	2122C-MD-02725 Project Owner:
Project Name:	SRO SWD 101 Former Pad
Project Location:	Eddy County, NM
Sampler Name:	Colton Bickerstaff

BILL TO

P.O. #:	
Company:	Tetra Tech
Attn:	Sam Abbott
Address:	by email
City:	
State: Zip:	
Phone #:	
Fax #:	

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH	BTEX	Chlorides
H221290																	
1	BH-1 (0-1')	G	1			X					X		3/30/22		X	X	X
2	BH-1 (1'-2')																
3	BH-1 (2'-3')																
4	BH-1 (3'-4')																
5	BH-1 (5'-6')																
6	BH-1 (7'-8')																
7	BH-1 (9'-10')																
8	BH-1 (14'-15')																
9	BH-1 (19'-20')																
10	BH-1 (24'-25')																

inquished By:	Date: 3/31/22	Received By:	Verbal Result: ☐ Yes ☑ No Add'l Phone #:
Colton Bickerstaff	Time: 1235		All Results are emailed. Please provide Email address:
inquished By:	Date:	Received By:	Sam.Abbott@tetratech.com
	Time:		REMARKS:
vered By: (Circle One)	Observed Temp. °C 0.4	Sample Condition: Cool ☑ Yes ☐ No / Intact ☑ Yes ☐ No	CHECKED BY: (Initials) TC
ler - UPS - Bus - Other:	Corrected Temp. °C -0.1		Turnaround Time: Standard ☑ Rush ☐
FORM-006 R 3.2 10/07/21			Thermometer ID #113 Correction Factor -0.5°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No / Intact ☐ Yes ☐ No — Observed Temp. °C — Corrected Temp. °C

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

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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2/4

Company Name: ConocoPhillips
Project Manager: Sam Abbott
Address:
City:
State: Zip:
Phone #:
Fax #:
Project #: 212C-MD-02725 Project Owner:
Project Name: SRO SWD 101 Former Pad
Project Location: Eddy County, NM
Sampler Name: Colton Birkenstaff

BILL TO
P.O. #:
Company: Tetra Tech
Attn: Sam Abbott
Address: by email
City:
State: Zip:
Phone #:
Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH	BTEX	Chlorides
H221290																	
11	BH-1 (29'-30')	G	1			X					X		3/30/22		X	X	X
12	BH-2 (0-1')																
13	BH-2 (2'-3')																
14	BH-2 (4'-5')																
15	BH-2 (6'-7')																
16	BH-2 (9'-10')																
17	BH-3 (0-1')																
18	BH-3 (2'-3')																
19	BH-3 (4'-5')																
20	BH-3 (6'-7')																

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Relinquished By: Colton Birkenstaff Date: 3/31/22 Time: 1235 Received By:
Relinquished By: Date: Time: Received By:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Observed Temp. °C 0.4
Corrected Temp. °C -0.1
Sample Condition: Cool Yes / Intact Yes
CHECKED BY: (Initials) TO

Verbal Result: ☐ Yes ☑ No Add'l Phone #:
All Results are emailed. Please provide Email address:
Sam.Abbott@tetratech.com
REMARKS:

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113
Correction Factor -0.5°C

Bacteria (only) Sample Condition
Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3/4

Company Name: ConocoPhillips
Project Manager: Sam Abbott
Address:
City:
State: Zip:
Phone #:
Fax #:
Project #: 212C-MD-02725 Project Owner:
Project Name: SRO Sand 101 Former Pad
Project Location: Eddy County, NM
Sampler Name: Colton Bickerstaff

BILL TO
P.O. #:
Company: Tetra Tech
Attn: Sam Abbott
Address: by email
City:
State: Zip:
Phone #:
Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH	BTEX	Chlorides
H222190																	
21	BH-3 (9'-10')	G	1			X					X		3/30/22		X	X	X
22	BH-4 (0-1')	G	1			X					X		3/30/22		X	X	X
23	BH-4 (2'-3')	G	1			X					X		3/30/22		X	X	X
24	BH-4 (4'-5')	G	1			X					X		3/30/22		X	X	X
25	BH-4 (6'-7')	G	1			X					X		3/30/22		X	X	X
26	BH-4 (9'-10')	G	1			X					X		3/30/22		X	X	X
27	BH-5 (0-1')	G	1			X					X		3/30/22		X	X	X
28	BH-5 (2'-3')	G	1			X					X		3/30/22		X	X	X
29	BH-5 (4'-5')	G	1			X					X		3/30/22		X	X	X
30	BH-5 (6'-7')	G	1			X					X		3/30/22		X	X	X

Relinquished By: Colton Bickerstaff
Date: 3/31/22
Time: 1235
Received By: Tamara Oldaker

Relinquished By:
Date:
Time:
Received By:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Observed Temp. °C 0.4
Corrected Temp. °C -0.1
Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TO

Verbal Result: ☐ Yes ☑ No Add'l Phone #:
All Results are emailed. Please provide Email address:
Sam.Abbott@tetratech.com
REMARKS:

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113
Correction Factor -0.5°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

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4/4

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ConocoPhillips
Project Manager: Sam Abbott
Address:
City: State: Zip:
Phone #: Fax #:
Project #: 212C-MD-02725 Project Owner:
Project Name: SRO Sud 107 Former Pond
Project Location: Eddy County, NM
Sampler Name: Colton Bickerstaff

BILL TO
P.O. #:
Company: Tetra Tech
Attn: Sam Abbott
Address: by email
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH	BTEX	Chlorides
H221290																	
31	BH-5 (9'-10')	G	1			X					X		3/30/22		X	X	X
32	BG-1 (0-1')																
33	BG-1 (2'-3')																
34	BG-1 (4'-5')																
35	BG-1 (6'-7')																
36	BG-1 (9'-10')																

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Relinquished By: Colton Bickerstaff
Date: 3/31/22
Time: 1235
Received By: Tamara Oldaker

Relinquished By:
Date:
Time:
Received By:

Verbal Result: ☐ Yes ☑ No Add'l Phone #:
All Results are emailed. Please provide Email address:
Sam.Abbott@tetratech.com
REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Observed Temp. °C 0.4
Corrected Temp. °C 0.1

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TO

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113
Correction Factor -0.5°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

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

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APPENDIX G
NMSLO Seed Mix Details

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Eddy Area, New Mexico

February 1, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

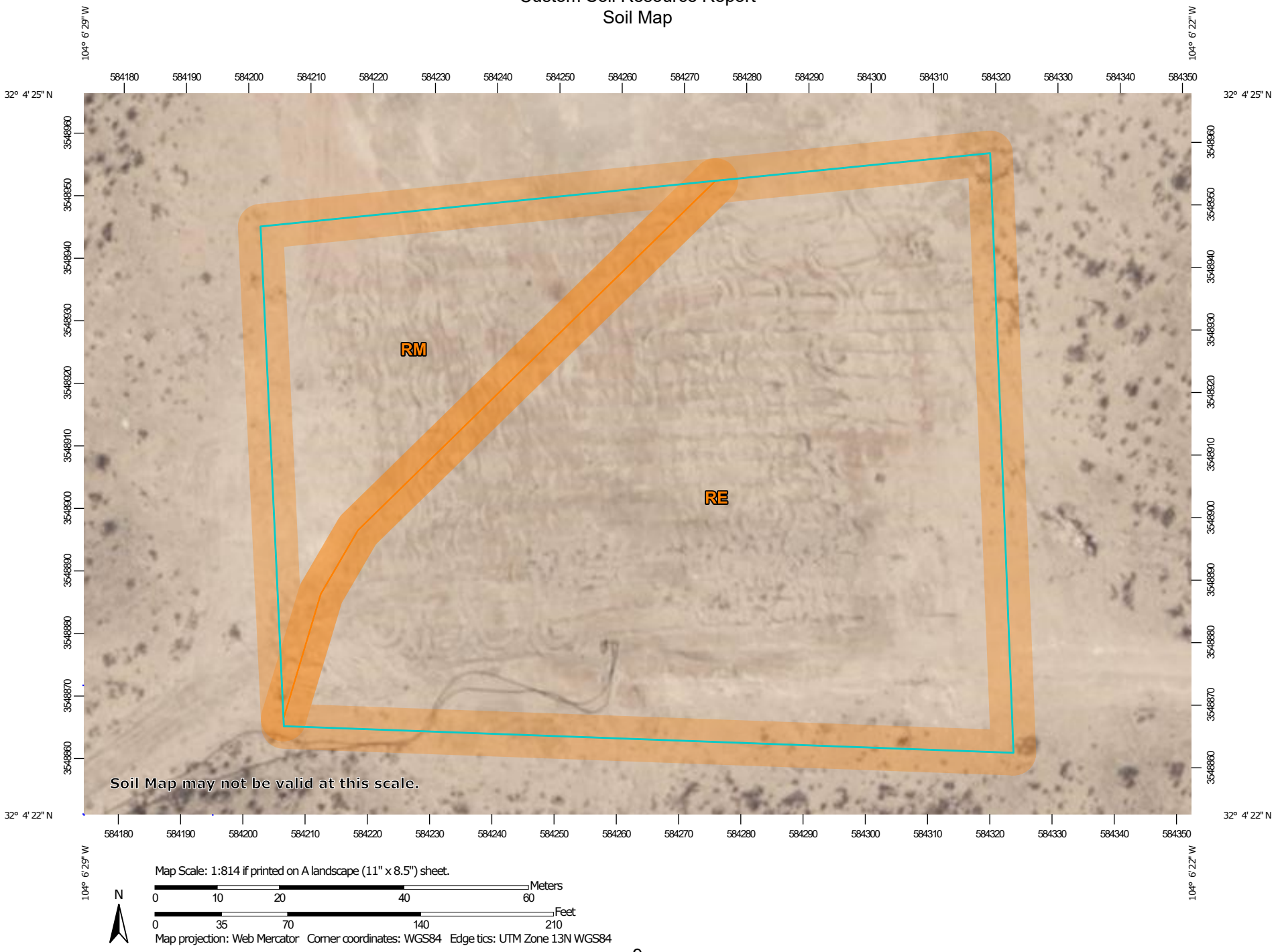
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

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

Special Point Features

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 17, Sep 12, 2021

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

Date(s) aerial images were photographed: Feb 27, 2020—Feb 28, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
RE	Reagan-Upton association, 0 to 9 percent slopes	2.0	77.4%
RM	Reeves-Reagan loams, 0 to 3 percent slopes	0.6	22.6%
Totals for Area of Interest		**2.6**	**100.0%**

Map Unit Descriptions

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

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

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

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

onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Eddy Area, New Mexico

RE—Reagan-Upton association, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w5d
Elevation: 1,100 to 5,400 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 180 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Reagan and similar soils: 70 percent
Upton and similar soils: 25 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reagan

Setting

Landform: Fan remnants, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R070DY153NM - Loamy
Hydric soil rating: No

Description of Upton

Setting

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

Typical profile

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

Properties and qualities

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

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R070DY159NM - Shallow Loamy
Hydric soil rating: No

Minor Components

Atoka

Percent of map unit: 3 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Pima

Percent of map unit: 2 percent
Ecological site: R042XC017NM - Bottomland
Hydric soil rating: No

RM—Reeves-Reagan loams, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5g
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 25 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Reeves and similar soils: 50 percent
Reagan and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reeves

Setting

Landform: Ridges, plains, hills
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Side slope, crest, nose slope, head slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 32 inches: clay loam
H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Gypsum, maximum content: 80 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): 3s

Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Description of Reagan

Setting

Landform: Fan remnants, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 30 inches: loam
H3 - 30 to 82 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 15.0
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Minor Components

Gypsum land

Percent of map unit: 5 percent
Hydric soil rating: No

Upton

Percent of map unit: 5 percent
Ecological site: R042XC025NM - Shallow
Hydric soil rating: No

Cottonwood

Percent of map unit: 5 percent
Ecological site: R042XC006NM - Gyp Upland
Hydric soil rating: No

1 REVEGETATION PLANS

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

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

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

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

NMSLO Seed Mix Loamy (L)

LOAMY (L) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Black grama	VNS, Southern	1.0	D
Blue grama	Lovington	1.0	D
Sideoats grama	Vaughn, El Reno	4.0	F
Sand dropseed	VNS, Southern	2.0	S
Alkali sacaton	VNS, Southern	1.0	
Little bluestem	Cimarron, Pastura	1.5	F
Forbs:			
Firewheel (*Gaillardia*)	VNS, Southern	1.0	D
Shrubs:			
Fourwing saltbush	Marana, Santa Rita	1.0	D
Common winterfat	VNS, Southern	0.5	F
	Total PLS/acre	18.0	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box
VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at http://plants.usda.gov.

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

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

CONDITIONS

Action 98930

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 98930
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	- The NMOCD approves the workplan to remove the impacted material as shown in Figure 5. The area around boring BH-1 will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a depth of 2 feet and the area around BH-2 will be excavated to a depth of 3 feet below the surrounding surface.	9/2/2022