TETRA TECH

February 5, 2024

Brittany Hall
Projects Environmental Specialist
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: REVISED Release Characterization and Work Plan
ConocoPhillips (Heritage COG Operating, LLC)
SRO State Com #018H Flowline Release
Unit Letter A, Section 17, Township 26 South, Range 28 East
Eddy County, New Mexico
Incident ID nAB1719137895
2RP-4288

Ms. Hall:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (COPC) to assess a historical release that occurred from a flowline associated with the SRO State Com #018H (API #30-015-39999). The approximate release site coordinates are 32.049943°, -104.100937°, located in the Public Land Survey System (PLSS) Unit Letter A, Section 17, Township 26 South, Range 28 East, Eddy County, New Mexico (Site). The Site location is shown on Figures 1 and 2. The site is located on State lands managed by the New Mexico State Land Office (NMSLO).

BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report, the release was discovered on July 4, 2017. The release occurred due to a pin hole in the side of a check valve on the water transfer line. Approximately 30 barrels (bbls) of produced water and 0.5 bbls of oil were released, of which 5 bbls of produced water was recovered. The NMOCD approved the initial C-141 on July 10, 2017, and subsequently assigned the release the Remediation Permit (RP) 2RP-4288 and the Incident ID nAB1719137895. The initial C-141 form is included in Appendix A.

The SRO State Com #018H (2RP-4288/nAB1719137895) is included in an Agreed Compliance Order ("ACO") with the NMOCD, related to unresolved releases from COPC's predecessor-in-interest ("COG"). The ACO required COPC to submit characterization and/or remediation plans with proposed timeframes for the ongoing corrective actions or remediations identified to the NMOCD no later than March 31, 2022. As of March 11, 2022, COPC has submitted characterization and remediation plans for all of the properties identified and owned. All documentation was submitted in accordance with ACO terms. These documents have been submitted to the NMOCD via CentreStack, a Secure Access & File Sharing platform, at the direction of Mr. Bradford Billings, NMOCD. The Delineation Workplan previously completed by COG was included as a portion of the ACO.

The SRO State Com #018H (nAB1719137895) footprint is adjacent to an additional release incident associated with the SRO State Com #018H (nAB1730649817). A separate Release Characterization and Closure report will be submitted for the associated release. As discussed, Solaris is currently the owner

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and operator at this facility. Rob Kirk, Vice President & General Manager, HSE & Compliance for Aris Water Solutions, has authorized COP to complete remedial work at the facility.

LAND OWNERSHIP

According to the NMOCD Oil and Gas Map, the Site is located on State Trust Lands. A review of the NMSLO Land Status Map was completed and the Site is located within active oil and gas lease VB12840001, which is listed under Concho Oil & Gas LLC/COG Operations LLC. Based on guidance provided by the NMSLO, as the release footprint is located on an active oil and gas lease, and the footprint is wholly located within the boundaries of the active oil and gas lease, no Remediation Right of Entry (ROE) is required at the Site. In an abundance of caution, an ROE was procured and received on October 23, 2023. A copy of the ROE permit is included in Appendix B.

CULTURAL PROPERTIES PROTECTION

Tetra Tech, on behalf of COP, contracted SWCA Environmental Consultants (SWCA) to conduct an intensive pedestrian survey for the SRO State Com #018H Flowline Release covering 28.84 acres (11.67 ha), due to NMCRIS 139406, a previously qualifying survey, the survey area was reduced to a total of 0.05 acres (0.02 ha) on the SLO-managed land Eddy County, New Mexico.

SLO cultural resources preservation efforts requires that an archaeological survey be conducted to current standards in compliance with New Mexico Administrative Code (NMAC) 4.10.15 to ensure that cultural properties are not inadvertently excavated, harmed, or destroyed by any person. On June 15, 2023, SWCA surveyed a 200-foot buffer from the inadvertent release location footprint, located entirely on SLO-managed land.

No archaeological sites, historic properties, or isolated occurrences were observed during the investigation. No additional investigation or treatment was recommended regarding the current undertaking. A copy of the NMCRIS Activity No. 153228 is included in Appendix B, Regulatory Correspondence.

INITIAL SITE CHARACTERIZATION

As a portion of the initial Work Plan (described below) a site characterization was performed. The initial Work Plan described the Site conditions and a risk -based approach and was approved by NMOCD, as detailed below.

2017 INITIAL ASSESSMENT

On August 7, 2017, COG personnel were onsite to conduct the initial site assessment. Two (2) trenches (T-1 and T-2) were installed using a trackhoe to a maximum depth of approximately 17 ft below ground surface (bgs). Four (4) soil samples (north, south, east and west) were collected to define the horizontal extent to a depth of approximately 1 ft bgs. Soil samples were sent to Xenco Laboratories and were analyzed by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0.

The initial assessment results are summarized in Table 1. Analytical results for T-1 and T-2 were above RRALS for chloride to a depth of 12 ft bgs at T-1 and 6 ft bgs at T-2. TPH analytical results exceeded RRALs at surface for T-1 and at 1’ ft bgs for T-2, respectively. The initial assessment sampling locations are indicated on Figure 3.

INITIAL WORK PLAN (2017)

A Work Plan dated September 19, 2017, describing the Site assessment and proposed remedial activities was submitted via email to Mike Bratcher of the NMOCD on October 2, 2017. The Work Plan proposed the excavation of the area of trench T-1 to a depth of 4 ft bgs and capped with a 40-mil liner, and T-2 to a depth of 6 ft bgs.

The Initial Work Plan was approved by NMOCD on October 3, 2017, with the following comments:

- *COG's proposal for remediation of the above referenced release is approved. Please advise in the event proposed excavation depths are not achieved. Please advise once remedial activities have been scheduled.*

A 90-day extension request to December 20, 2023, was approved in an email dated March 22, 2023. Figure 3 shows the initial release extent and the 2017 assessment locations as depicted in the approved Workplan.

Figure 3 shows the initial reported release extent and the 2017 soil boring and trench locations as depicted in the Initial Work Plan. A copy of the Work Plan is available on the NMOCD online incident files. Regulatory correspondence is included in Appendix B.

NMSLO ECO CORRESPONDENCE

The approved Work Plan dated September 19, 2017, describing the Site assessment and proposed remedial activities was submitted via email to Tami Knight of the State Land Office Environmental Compliance Office (ECO) on May 18, 2023. The Work Plan included the placement of a 40-mil liner at the base of the 4-foot excavation. The Work Plan was rejected by Tami Knight on June 6, 2023, with the following comments:

- *ECO is not approving placement of plastic liner as a means of remediation on State Trust Land. Please submit a revised workplan that includes an alternative remediation method that does not include a plastic liner. Additionally, the revised workplan must include a confirmation sampling plan and a reclamation plan since the remediation work is occurring on a ROW and in a pasture.*

Regulatory correspondence is included in Appendix B. On the basis of ECO not approving liners on State Trust lands, COP elected to reassess the release footprint to determine current concentrations in soil. Additionally, COP chose to revise the Site Characterization as detailed below.

REVISED SITE CHARACTERIZATION

Based on the ECO rejection, a supplementary 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.

According to the NMOSE reporting system, there are no water wells within ½ mile (800 meters) of the Site. There is one (1) well within 2.03 miles (3,282 meters) of the Site with an average depth to groundwater of 120 ft bgs.

DTW DETERMINATION

As the available water level information was from a well further than ½ mile away from the Site, COP elected to review adjacent release sites with approved reports for possibility of associated borings which could provide a means of determining depth to groundwater in the vicinity of the nAB1719137895 release area. On March 1, 2023, a licensed drilling subcontractor was contracted to a drill a borehole to 55 ft bgs to determine depth to water (DTW) as part of the characterization associated with the Graham Cracker 16 State #003H lease pad. The DTW boring is located approximately 0.6 miles east of the SRO State Com #018H Flowline Release. The borehole was dry upon completion, and soils were dry from surface to total depth. The depth to groundwater in the area was thus verified as greater than 55 ft bgs. The borehole was plugged with 3/8" bentonite chips. The borehole coordinates are 32.049763°, -104.090109°.

Based on the proximity of the nearby DTW borehole, a request was submitted to the NMOCD on October 6, 2023, to ascertain if it would be acceptable to utilize this borehole to determine depth to groundwater at the Site. The NMOCD responded on October 10, 2023, and stated that the attached groundwater determination for the site was acceptable to the NMOCD for SRO State Com #018H. A copy of the correspondence with the NMOCD is included in Appendix B. The boring location is indicated on Figure 4. The revised site characterization data, along with the boring log, is included in Appendix C.

REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, and 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 revised site characterization 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 (GRO+DRO+ORO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

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

Constituent	Reclamation Requirement
Chloride	600 mg/kg
TPH (GRO+DRO+ORO)	100 mg/kg
BTEX	50 mg/kg

ADDITIONAL ASSESSMENT AND SAMPLING RESULTS

On behalf of COP, Tetra Tech conducted a visual Site inspection on May 30, 2023, to assess current Site conditions, document the observed impact, and photograph the area. Tetra Tech observed surface staining/impacts, however no obvious signs of staining and/or residual impact were observed at the adjacent release (nAB1730649817). Photographic documentation of current site conditions during the 2023 site visit is included as Appendix D.

Based on the ECO rejection and findings of the visual Site inspection; additional soil sampling was conducted to assess the current soil contaminant concentrations within the reported release footprint. On December 18, 2023, Tetra Tech installed one (1) hand auger boring (23-South) and two (2) trenches (T-23-1 & T-23-2) using mini-excavator. A total of nine (9) soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis of chloride via Standard Method SM4500Cl-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B.

Analytical results associated with sample locations T-23-1 and T-23-2 mirror the chloride results from T-1 and T-2 from the previous investigation, with concentrations exceeding the reclamation requirements of 600 mg/kg in the upper 4 feet. All other analytical results were below the reclamation requirements and Site RRALs for all constituents. The additional assessment sampling locations are indicated on Figure 4.

Analytical results from the October 2023 additional assessment sampling activities are summarized in Table 2. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E.

REMEDIATION WORK PLAN

Based on the previously approved Work Plan, additional analytical results from the 2023 site assessments, and the revised site characterization, ConocoPhillips proposes to remove the remaining impacted material as shown in Figure 5. Impacted soils will be excavated to a maximum depth of 4 feet bgs or until a representative sample from the walls and bottom of the excavation is below the Site RRALs. Heavy equipment (backhoe and track hoe) will be utilized to excavate areas outside the immediate vicinity of pressurized lines and will come no more than 4 feet from any pressurized lines. Based on the revised site characterization, a liner is no longer required as a portion of the remedial action.

Due to safety concerns related to surface flowlines, overhead powerlines, and active subsurface lines running adjacent to the release extent, the impacted soils in the vicinity of the tin horn and on the southern end may not be feasible or practicable to be completely removed to 4 feet bgs. COP will coordinate with the pipeline owner prior to remedial action. Prior to beginning remedial activities, the NMSLO office will be notified via email in accordance with NMSLO guidelines, and the Work Plan will be provided to the ECO.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation bottom and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. In accordance with subsection D of 19.15.29.12 NMAC, the responsible party will notify the appropriate division district office prior to conducting confirmation sampling. The estimated volume of material to be remediated is approximately 290 cubic yards.

ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. Approximately three (3) confirmation floor samples and five (5) confirmation sidewall samples are proposed for verification of remedial activities in the proposed excavation area. The proposed excavation encompasses an area of approximately 1,955 square feet.

These confirmation sidewall and floor samples will be representative of no more than approximately 400 square feet of excavated area. Confirmation samples will be sent to Cardinal Laboratories for analysis of chloride via EPA Method SM4500Cl-B, BTEX via EPA Method 8021B, and TPH via EPA Method 8015M. Once results are received, the excavation will then be backfilled with clean material to pre-release surface grade.

SITE RECLAMATION PLAN

Based on 19.15.29.13 NMAC, all areas disturbed by the remediation and closure will be reclaimed once confirmation sampling results below the reclamation requirements for soils above four feet bgs are received. Analytical results will indicate that any remaining impacts meet the reclamation standards. Analytical results to prove the backfill is non-waste containing will also be included in the report. Once acceptable confirmation sample results are received and the backfill is deemed non-waste containing, the excavation will be backfilled with clean material to pre-release grade. The soil cover will include a top layer consisting of one foot of suitable material to establish vegetation at the site.

The backfilled areas in the pasture will be seeded following backfilling, to aid in revegetation. The closure report will include pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use. Based on the soils of the site, the NMSLO Loamy 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 equip 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 annually to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The NMSLO seed mixture details in corresponding pounds per live seed per acre are included in Appendix F.

Reclamation activities will be implemented in consultation with the State Land Office in accordance with 19.2.100.67 NMAC for surface reclamations on State Oil and Gas Leases. COP will notify the NMSLO when reclamation and revegetation are complete.

CONCLUSION

Based on the current assessment activities, this Revised Release Characterization and Remediation Work Plan encompasses the most up to date site conditions and will precede the 2017 Workplan. ConocoPhillips proposes to begin remediation activities at the Site within 90 days of NMOCD plan approval. Upon Completion of the proposed work, a final closure report detailing the remediation and reclamation activities and the results of the confirmation sampling will be submitted to NMOCD. The completed C-141 forms are enclosed as Appendix A.

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

Sincerely,
Tetra Tech, Inc.

Nicholas M. Poole
Project Lead

Christian M. Llull, P.G.
Program Manager

cc:
Mr. Ike Tavarez, RMR – ConocoPhillips
Ms. Tami Knight, NMSLO ECO

LIST OF ATTACHMENTS

Figures:

Figure 1 – Overview Map
Figure 2 – Topographic Map
Figure 3 – Approximate Release Extent and Initial Site Assessment
Figure 4 – Approximate Release Extent and Additional Site Assessment with DTW Location
Figure 5 – Proposed Remediation Extent

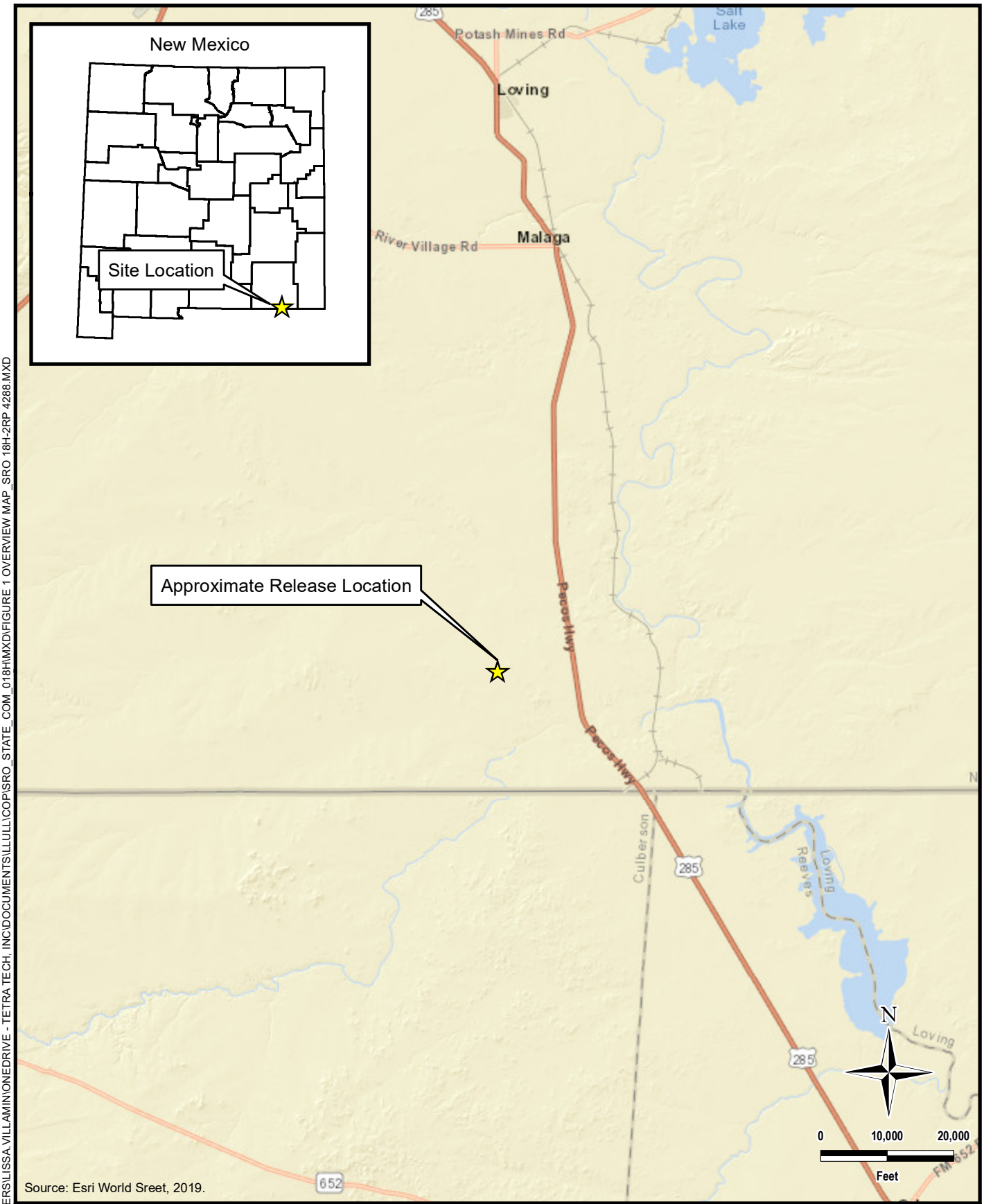
Tables:

Table 1 – Summary of Analytical Results – 2018 Soil Assessment
Table 2 – Summary of Analytical Results – 2023 Soil Assessment

Appendices:

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

FIGURES



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\SRO_STATE_COM_018H\MXD\FIGURE 1 OVERVIEW MAP_SRO 18H-2RP 4288.MXD

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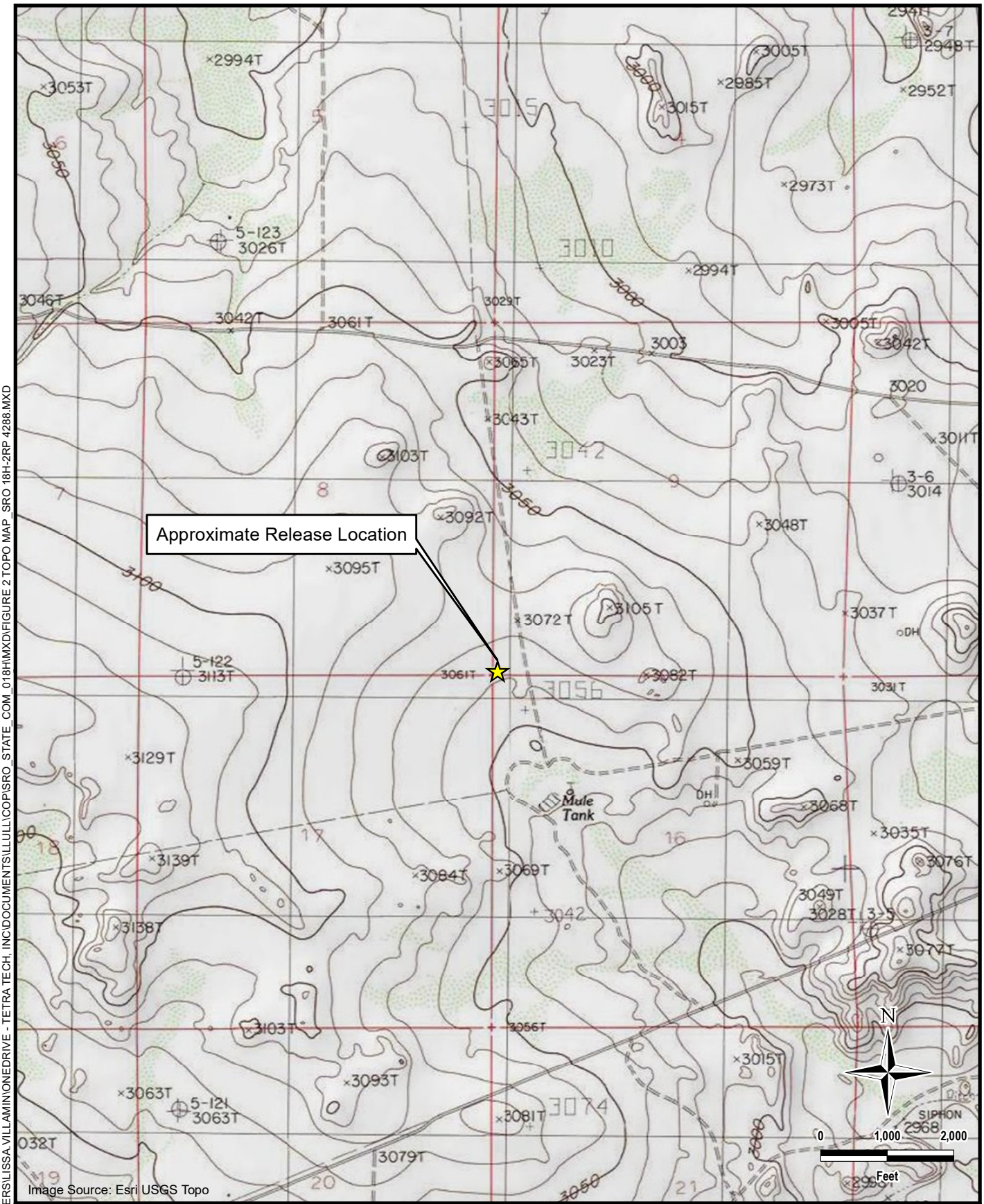
CONOCOPHILLIPS

NAB1719137895 - 2RP-4288
EDDY COUNTY, NEW MEXICO
(32.049943°, -104.100937°)

SRO STATE COM #018H RELEASES
OVERVIEW MAP

PROJECT NO.:	212C-MD-02826
DATE:	OCTOBER 16, 2023
DESIGNED BY:	LMV

Figure No.
1



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\SRO_STATE_COM_018H\MXD\FIGURE 2 TOPO MAP_SRO 18H-2RP 4288.MXD

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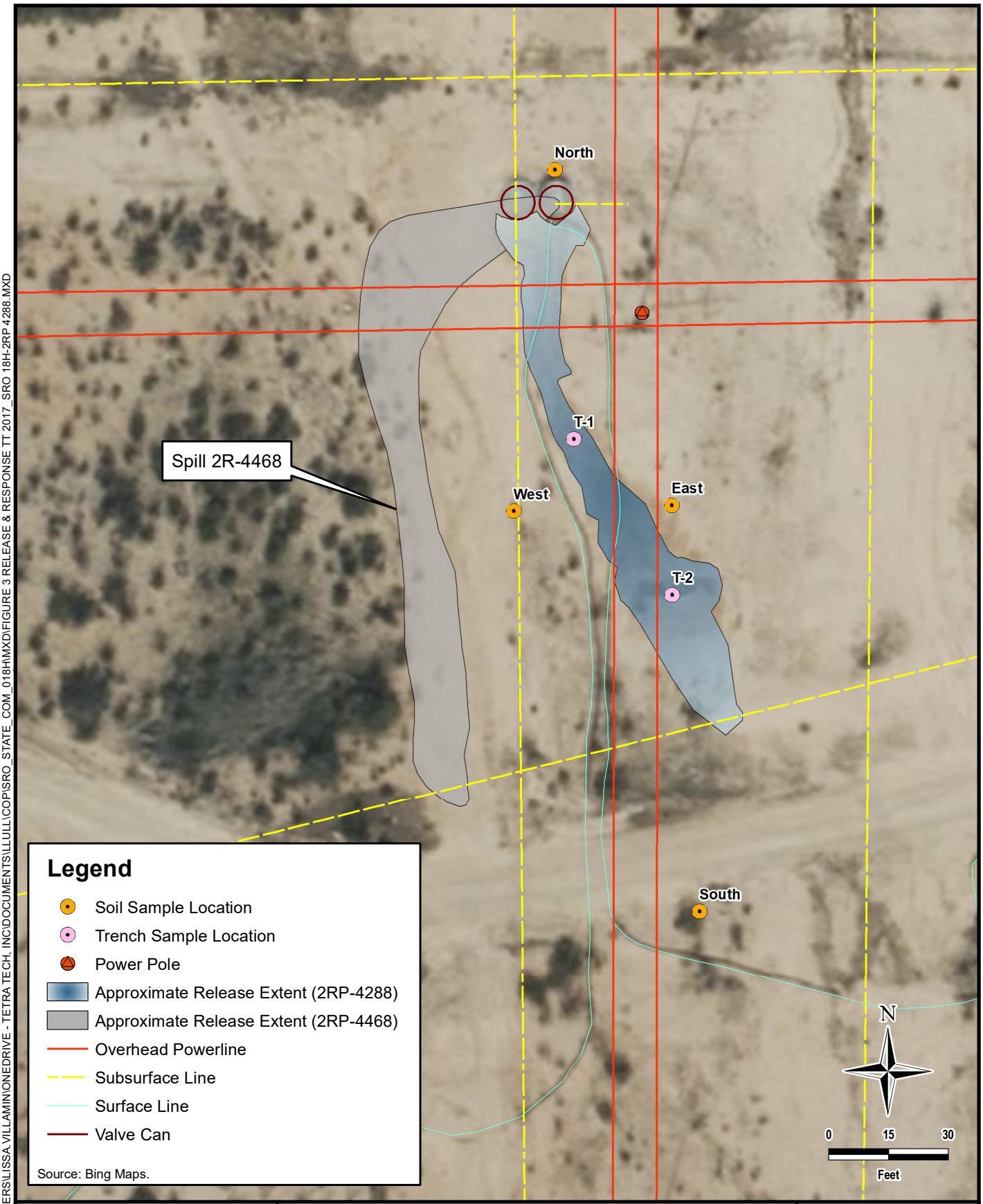
CONOCOPHILLIPS

NAB1719137895 - 2RP-4288
EDDY COUNTY, NEW MEXICO
(32.049943°, -104.100937°)

SRO STATE COM #018H RELEASES
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02826
DATE:	OCTOBER 16, 2023
DESIGNED BY:	LMV

Figure No.
2



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\SRO_STATE_COM_018H\MXD\FIGURE 3 RELEASE & RESPONSE TT 2017_SRO 18H-2RP 4288.MXD

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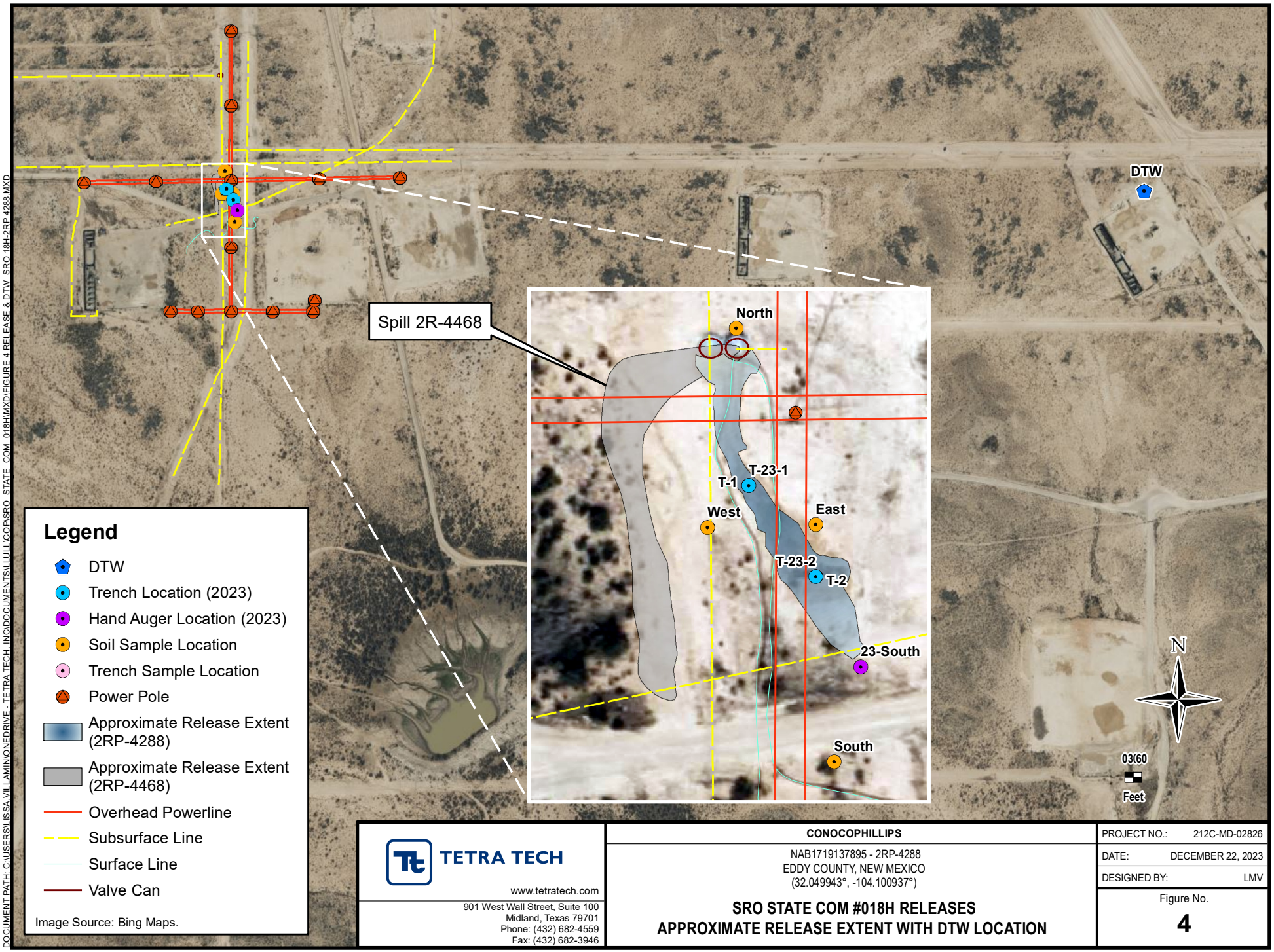
CONOCOPHILLIPS

NAB1719137895 - 2RP-4288
EDDY COUNTY, NEW MEXICO
(32.049943°, -104.100937°)

SRO STATE COM #018H RELEASES
APPROXIMATE RELEASE EXTENT AND INITIAL RESPONSE (TT 2017)

PROJECT NO.:	212C-MD-02826
DATE:	OCTOBER 16, 2023
DESIGNED BY:	LMV

Figure No.
3



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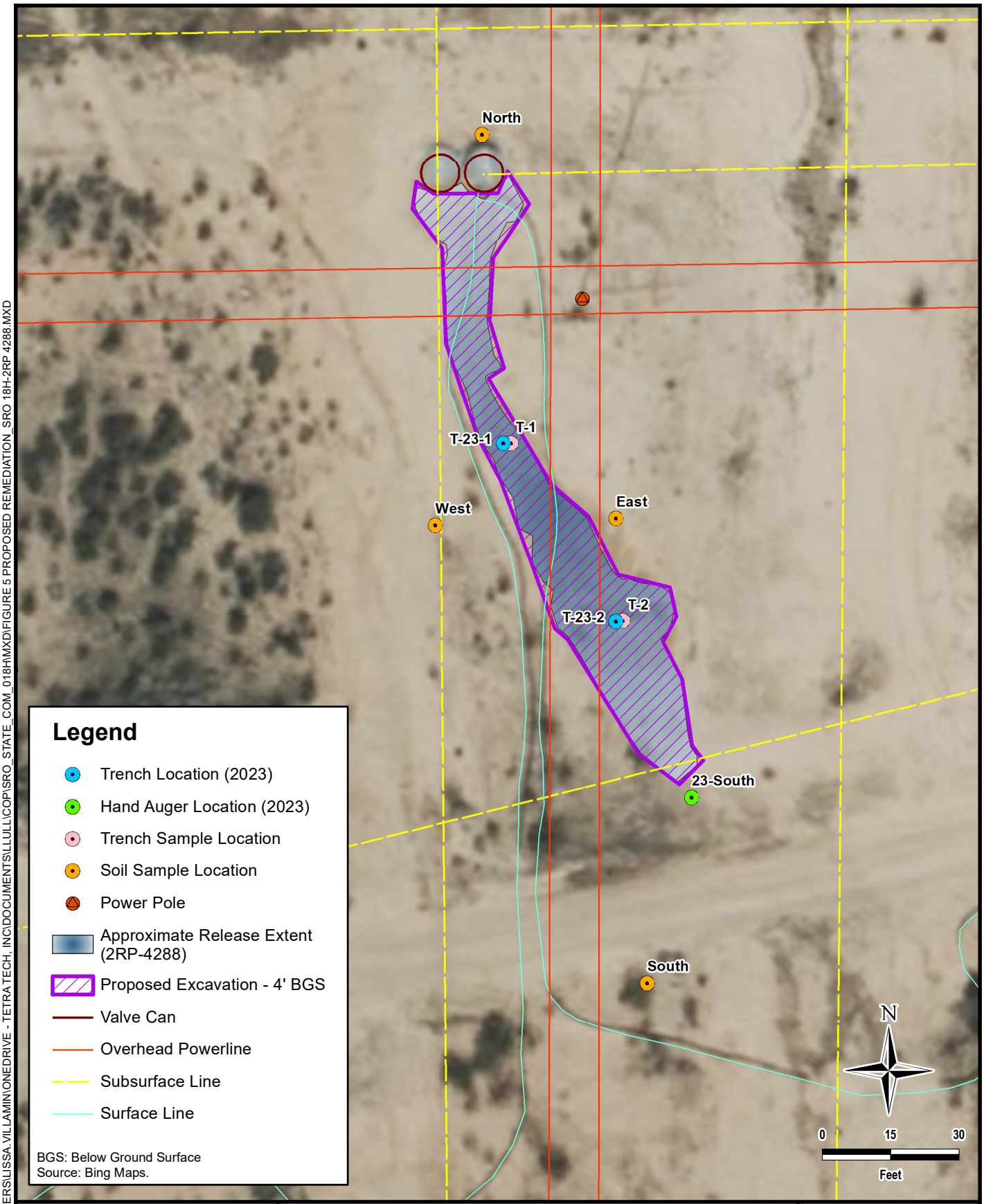
CONOCOPHILLIPS

NAB1719137895 - 2RP-4288
EDDY COUNTY, NEW MEXICO
(32.049943°, -104.100937°)

SRO STATE COM #018H RELEASES
APPROXIMATE RELEASE EXTENT WITH DTW LOCATION

PROJECT NO.:	212C-MD-02826
DATE:	DECEMBER 22, 2023
DESIGNED BY:	LMV

Figure No.
4



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\SRO_STATE_COM_018H\MXD\FIGURE 5 PROPOSED REMEDIATION_SRO 18H-2RP 4288.MXD

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EDDY COUNTY, NEW MEXICO
(32.049943°, -104.100937°)

SRO STATE COM #018H RELEASE
PROPOSED REMEDIATION EXTENT

PROJECT NO.:	212C-MD-02826
DATE:	JANUARY 16, 2024
DESIGNED BY:	LMV

Figure No.
5

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2018 SOIL ASSESSMENT - nAB1719137895/2RP-4288
CONOCOPHILLIPS
SRO STATE COM #018H
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]														TPH[3]									
					Benzene		Toluene		Ethylbenzene		m,p-Xylenes		o-Xylene		Total Xylenes		Total BTEX		GRO		DRO		ORO		Total TPH	
		ft. bgs	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	Q	mg/kg	Q	mg/kg	
T1	8/7/2017	Surface	***12,800***		<0.00199	U	<0.00199	U	<0.00199	U	0.00703		0.00564		0.0127		0.0127		<15.0	U	1,250		474		1,720	
		1	***11,200***		<0.00200	U	<0.00200	U	<0.00200	U	0.00415		0.00457		0.00872		0.00872		<15.0	U	<15.0	U	<15.0	U	<15.0	
		2	***10,600***		<0.00200	U	<0.00200	U	0.00531		0.0391		0.0298		0.0689		0.0742		<15.0	U	62.5		<15.0	U	62.5	
		3	***6,850***		<0.00200	U	<0.00200	U	<0.00200	U	<0.00399	U	<0.00200	U	<0.00200	U	<0.00200	U	<15.0	U	<15.0	U	<15.0	U	<15.0	
		4	***6,310***		<0.00198	U	<0.00198	U	<0.00198	U	<0.00396	U	<0.00198	U	<0.00198	U	<0.00198	U	<15.0	U	<15.0	U	<15.0	U	<15.0	
		6	5,320		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		8	2,650		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		10	1,200		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		12	1,250		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		14	285		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		17	210		<0.00201	U	<0.00201	U	<0.00201	U	<0.00402	U	<0.00201	U	<0.00201	U	<0.00201	U	<15.0	U	<15.0	U	<15.0	U	<15.0	
T2	8/7/2017	Surface	***8,150***		<0.00200	U	0.298		0.289		0.253		0.202		0.455		1.04		175		622		97.9		895	
		1	***8,450***		<0.00199	U	0.0121		0.0415		0.235		0.159		0.394		0.448		42.0		227		<15.0	U	269	
		2	***9,740***		<0.00200	U	<0.00200	U	<0.00200	U	0.0121		0.00565		0.0178		0.0178		<15.0	U	32.2		<15.0		32.2	
		3	***9,750***		<0.00201	U	<0.00201	U	<0.00201	U	0.00403		0.00377		0.00780		0.00780		<15.0	U	<15.0	U	<15.0	U	<15.0	
		4	***4,370***		<0.00202	U	<0.00202	U	<0.00202	U	<0.00404	U	0.00323		0.00323		0.00323		<14.9	U	<14.9	U	<14.9	U	<14.9	
		6	1,420		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		8	470		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		10	349		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		12	159		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		14	280		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		-	
		15-16	359		<0.00200	U	<0.00200	U	<0.00200	U	<0.00401	U	<0.00200	U	<0.00200	U	<0.00200	U	<15.0	U	<15.0	U	<15.0	U	<15.0	
North	8/7/2017	Surface	9.36		0.0167		0.00324		<0.00202	U	0.00707		0.00374		0.0108		0.0308		<14.9	U	<14.9	U	<14.9	U	<14.9	
		1	27.0		0.0185		0.0298		0.00460		0.0107		0.00380		0.0145		0.0674		<15.0	U	<15.0	U	<15.0	U	<15.0	
South	8/7/2017	Surface	<5.00	U	0.00409		<0.00200	U	<0.00200	U	<0.00399	U	0.00251		0.00251		0.00660		<15.0	U	<15.0	U	<15.0	U	<15.0	
		1	17.0		0.0112		0.0210		0.00284		0.00736		0.00459		0.0120		0.0470		<15.0	U	<15.0	U	<15.0	U	<15.0	
East	8/7/2017	Surface	<4.94	U	<0.00201	U	<0.00201	U	<0.00201	U	<0.00402	U	0.00254		0.00254		0.00254		<15.0	U	<15.0	U	<15.0	U	<15.0	
		1	<4.97	U	0.00269		0.00558		<0.00199	U	<0.00398	U	<0.00199	U	<0.00199	U	0.00827		<15.0	U	<15.0	U	<15.0	U	<15.0	
West	8/7/2017	Surface	<4.95	U	<0.00337	U	<0.00337	U	<0.00337	U	<0.00673		<0.00337	U	<0.00337	U	<0.00337	U	<15.0	U	<15.0	U	<15.0	U	<15.0	
		1	<4.94	U	0.00864		0.0132		<0.00202	U	0.00450		0.00421		0.00871		0.0306		<15.0	U	<15.0	U	<15.0	U	<15.0	

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

ORO Oil Range hydrocarbons

NS Sample not analyzed for parameter

1 EPA Method 300.0

2 EPA Method 8021B

3 Method SW8015 Mod

NA Sample not analyzed for constituent

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

Shaded rows indicate intervals proposed for excavation.

QUALIFIERS: U Analyte was not detected.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
2023 SOIL ASSESSMENT - nAB1719137895/2RP-4288
CONOCOPHILLIPS
SRO STATE COM #018H
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]										TPH[3]							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH (GRO+DRO+EXT DRO)
															C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}			
		ft. bgs	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	mg/kg
		Criteria for Pasture / Off-Pad Soils 0-4' bgs:	*600 mg/kg*		*< 10 mg/kg*		--		--		--		*< 50 mg/kg*		--		--		--		--	*100 mg/kg*
		Criteria for Soils >4' bgs (GW 50-100 ft):	*10,000 mg/kg*		*< 10 mg/kg*		--		--		--		*< 50 mg/kg*		--		--		--		*1000 mg/kg*	*2500 mg/kg*
23-South	12/18/2023	0-1	<16.0		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
T-23-1	12/18/2023	0-1	***11,200***		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		17.2		<10.0		17.2	17.2
		2-3	***7,280***		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
		3-4	***3,600***		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
		4-5	3,680		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
T-23-2	12/18/2023	0-1	***2760.0***		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
		2-3	***1360.0***		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
		3-4	***1390.0***		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
		4-5	608.0		<0.050		<0.050		<<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

Bold and italicized values indicate exceedance of proposed RRALs and/or 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
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC OGRID # 229137	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-683-7443
Facility Name: SRO State Com #018H	Facility Type: Flowline

Surface Owner: State	Mineral Owner: State	API No. 30-015-39999

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	17	26S	28E	330	North	330	East	Eddy

Latitude 32.049943 **Longitude** -104.100937

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 0.5 bbl. Oil & 30 bbl. PW	Volume Recovered: 5 bbl. Produced Water
Source of Release: Flowline	Date and Hour of Occurrence: July 4, 2017 11:00 am	Date and Hour of Discovery: July 4, 2017 11:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Ms. Weaver – NOMCD / Ms. Groves – SLO	
By Whom? Aaron Lieb	Date and Hour: July 5, 2017 8:12 am	
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 release was due to a pin hole in the side of a check valve on the water transfer line. The check valve was replaced.

Describe Area Affected and Cleanup Action Taken.*

The release occurred in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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: Rebecca Haskell	OIL CONSERVATION DIVISION
Printed Name: Rebecca Haskell	Approved by Environmental Specialist:
Title: Senior HSE Coordinator	Approval Date: / Expiration Date:
E-mail Address: rhaskell@concho.com	Conditions of Approval: / Attached ☐
Date: July 6, 2017 Phone: 432-683-7443	

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: _____ _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: _____ Title: _____

Signature: _____ _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

APPENDIX B
Regulatory Correspondence

Stephanie Garcia Richard
COMMISSIONER

State of New Mexico
Commissioner of Public Lands
310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

October 23, 2023

COG Operating, LLC
2208 West Main Street
Artesia, NM 88210

Attn: Monti Sanders

Re: Right-of-Entry Permit No.: **RE-6733/SRO State Com #18H**

Dear Applicant:

Enclosed is the completed captioned Right-of-Entry permit. If any corrections are necessary, please let us know and we will retype or amend this permit as necessary.

Please see the attached conservation memorandum for conservation measures.

The New Mexico State Land Office requires you to notify any surface lessees that will be impacted by your project prior to construction.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact Amy Velazquez of my staff at (505) 827-5789.

Sincerely,

James S. Bordegaray
Director, Commercial Resources Division

JSB/alv

NEW MEXICO STATE LAND OFFICE
Commissioner of Public Lands
Stephanie Garcia Richard
New Mexico State Land Office Building
P.O. Box 1148, Santa Fe, NM 87504-1148

RIGHT OF ENTRY PERMIT
CONTRACT NO. RE – 6733

This Agreement is made and entered into between the COMMISSIONER OF PUBLIC LANDS (the "Commissioner") and

COG Operating LLC
2208 West Main Street
Artesia, NM 88210

("Permittee"). The parties agree as follows:

1. RIGHT OF ENTRY ("ROE")

The Commissioner grants to Permittee, and its authorized representatives, employees, and contractors, permission to use the state trust lands identified below (the "Premises"), and ingress and egress to the Premises, for the sole purposes of (1) surveying/conducting an environmental investigation due to a produced water release on or adjacent to the site of the **SRO State Com #18H (Incident ID # 2RP-4468)** and (2) conducting surface reclamation activities, including removal of equipment and debris, and any required remediation per 19.15.29.12 NMAC.

The Premises are situated in the following location in **Eddy County**, New Mexico::

Section	Township	Range	Subdivision	County	Longitude/Latitude
17	26S	28E	NW4NW4	Eddy	32.004957,-104.10095

2. TERM AND TERMINATION

Right of entry is granted for a term of **180 days,** commencing on the execution date of this document by the Commissioner of Public Lands.

3. FEES

$ 50.00 Application Fee
$ 500.00 Permit Fee
$ 550.00 Total Fee

4. CONDITIONS OF USE

A. The issuance of this ROE does not guarantee that any subsequent lease, permit, or any other instrument will be issued to Permittee for the Premises.

B. No blading or widening of any roads that provide access to the Premises is permitted under this ROE.

C. No sale of any material extracted from the Premises is allowed under this ROE.

D. Permittee shall observe all applicable federal, state, and local laws and regulations.

E. Permittee shall take all reasonable precautions to prevent and suppress forest, brush, and grass fires and prevent pollution of waters on or in the vicinity of the Premises.

F. Permittee shall not block or disrupt roads or trails commonly in use.

G. This ROE is subject to any and all easements and rights-of-way previously granted and now in force and effect.

H. Permittee shall be responsible for repair and restitution for damage to any Premises or improvements as a result of activities related to the ROE.

I. Prior to entering the Premises, Permittee must identify and contact any existing surface lessees. The grant of this ROE does not allow access across private lands.

J. Permittee may utilize this ROE upon its execution for inspection of the Premises and to conduct any necessary tests or inspections. Permittee may not conduct remediation or reclamation work until it has submitted a written plan for such work, and received State Land Office approval.

K. Personnel present on Premises: **ConocoPhillips personnel and contractors.**

L. Equipment and materials present on Premises: **Vehicles, heavy equipment, and associated materials.**

5. SITE CONDITIONS

A. No surface disturbance, other than soil tests, except as described in a reclamation plan submitted to and approved by the State Land Office.

B. Access to the Premises shall be over existing roads.

C. The natural environmental conditions that exist contemporaneously with this grant of ROE shall be preserved and protected. Permittee must follow all applicable environmental and cultural resource protection laws and regulations.

6. INDEMNITY

Permittee shall save, hold harmless, indemnify, and defend the State of New Mexico, the Commissioner and Commissioner's employees, agents and contractors, in both their official and individual capacities, from any and all liability, claims, losses, damages, or expenses of any character or nature whatsoever, including but not limited to attorney's fees, court costs, loss of land value or use, third party claims, penalties, or removal, remedial or restoration costs arising out of, or alleged to arise out of Permittee's operations or presence on the Premises (or operations or presence of his representatives, employees, or contractors).

7. SURVIVAL OF TERMS

Permittee's obligations regarding indemnity, site conditions, and compliance with applicable standards and laws, shall survive the termination, cancellation or relinquishment of this Agreement, and any cause of action of the Commissioner to enforce any right, liability, claim, loss, damage or expense under those paragraphs shall not be deemed to accrue until the Commissioner's actual discovery of said right, liability, claim, loss, damage or expense.

8. NOTIFICATION

Permittee must notify the State Land Office immediately in the event Permittee or his representatives, employees, or contractors observe any spill, fire, or other emergency on the Premises, or if Permittee or his representatives, employees, or contractors experience any serious injury while on the Premises.

WITNESS the hands of PERMITTEE and COMMISSIONER on the day(s) and year entered below.

PERMITTEE SIGNATURE

DATE: 10/19/23

Ryan D. Owen

Attorney-in-fact, COG Operating LLC

PERMITTEE NAME AND TITLE (PRINT)

BY: _____

SEAL:

Stephanie Garcia Richard
Commissioner of Public Lands

DATE: 10/23/2023

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Registration

Lead Agency: New Mexico State Land Office

Performing Agency: SWCA Environmental Consultants
Activity ID: 81946
Performing Agency Report No: 23-410

Report Recipient (Your Client): Tetra Tech

Activity Types:
- ☐ Research Design
- ✔ Archaeological Survey/Inventory
- ☐ Architectural Survey/Inventory
- ☐ Test Excavation
- ☐ Monitoring
- ☐ Collections/Non-Field Study
- ☐ Compliance Decision
- ☐ Literature Review Overview
- ☐ Excavation
- ☐ Ethnographic Study
- ☐ Resource/Property Visit
- ☐ Historic Structures Report
- ☐ Other:

Total Survey Acreage: 0.05
Total Tribal Acreage: 0.00
Total Resources Visited: 0

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Associate/Register Resources

Prefix	Number	Field Site/Other Number	In GIS	Resource Type	Collections Made?	Revisit
			✔		☐	

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Report Details

Lead Agency

Lead Agency: New Mexico State Land Office

Lead Agency Report No.

Report Number:

Title of Report

Title of Report: A Cultural Resources Survey of the SRO State Com #18H Release Project in Eddy County, New Mexico

Authors: Paisley DeFreese

Type of Report

Publication Type: Report, Monograph, or Book Negative

Description of Undertaking (what does the project entail?)

Description: Tetra Tech contracted SWCA Environmental Consultants (SWCA) to conduct an intensive cultural resources pedestrian survey in support of the SRO State Com #18H Release project in Eddy County, New Mexico. The proposed project consists of clean up efforts for the release including excavation of affected soil and back fill with clean soil and is approximately 19.58 kilometers (12.16 miles) southwest of Malaga, New Mexico on lands managed by the New Mexico State Land Office (SLO). The SLO will serve as the lead agency.

Tetra Tech is proposing to excavate and back fill two inadvertent releases surrounding two valve cans at the spill location. The proposed survey area is based on a 200 ft buffer around the provided center point (32.049752°, -104.100954). The project is completely on SLO land. Tetra Tech sent a site monitor to survey with SWCA as part of their standard safety protocol.

Dates of Investigation

From: 06/15/2023 **To:** 06/15/2023

Report Date

Report Date: 06/22/2023

Performing Agency/Consultant

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Name: SWCA Environmental Consultants
Principal Investigator: Alissa K. Healy
Field Supervisor: Thea Stehlik-Barry
Field Personnel Names: N/A
Historian/Other: N/A

Report Details

Performing Agency Report Number

Report Number: 23-410

Client/Customer (project proponent)

Name: Tetra Tech
Contact: Steve Jester
Address: 1500 City West, #1000
Houston, TX 77042
Phone: (713) 806-8871

Client/Customer Project Number

Project Number: 81946

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Ownership & Location

Land Ownership Status (Must be indicated on Project Map)

Land Ownership:

Land Owner/Manager	Protocol	Acres Surveyed	Acres in APE
NM SLO		0.05	0.05

Total Survey Acreage: 0.05

Total Tribal Acreage: 0.00

Record Search(es)

Date of HPD/ARMS File Review: 7-June-2023

Date of Other Agency File Review: 7-June-2023

Survey Data

Source Graphics: NAD 83

- ✔ USGS 7.5' (1:24,000) topo map
- ☐ Other Topo Map Scale:
- ✔ GPS Unit
- ☐ Aerial Photos
- ☐ Other Source Graphic(s):

The following tables (b,c,& e) are calculated by the NMCRIS Map Service

USGS 7.5' Topographic Map(s)

Map Name	USGS Quad Code
Red Bluff	32104-A1

County(ies)

County	FIPS
Eddy	

Legal Description

Unplatted	Township (N/S)	Range (E/W)	Section
	T26S	R28E	8
	T26S	R28E	17

Projected Legal Description

Nearest City or Town: Malaga

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

GIS

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NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Methodology

Survey Field Methods

Intensity: 100% coverage

Configuration: ✔ Block Survey Units ☐ Linear Survey Units (l x y)

Other Survey Units

Scope: Non-Selective

Coverage Method: ✔ Systematic Pedestrian Coverage **Other Method:**

Survey Interval (m): 15 **Crew Size:** 1

Fieldwork Dates: **From:** 06/15/2023 **To:** 06/15/2023

Survey Person Hours: 0.5 **Recording Person Hours:** 0

Additional Narrative: A Tetra Tech monitor was present during SWCA's cultural resources survey. NMCRIS 139403 (11/4/17) is a previously qualifying survey used to reduce the survey area.

Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.)

Environmental Setting:

The project area falls within the Chihuahuan Basins and Playas (24a) ecoregion. This ecoregion includes alluvial fans, internally drained basins, and river valleys mostly below 4,500 feet in elevation (Griffith et al. 2006). The elevation of the project area is 934.03 m (3,064 feet) above mean sea level. This ecoregion is composed of desert grasses and shrub land in erosional settings. This project is within the shrub land setting. Typical vegetation includes creosote bush, tarbush, yuccas, sandsage, viscid acacia, tasajillo, lechuguilla, mesquite, and ceniza. (Griffith et al. 2006). Wildlife in the area includes mule deer, prairie dog, gopher, fox, coyote, skunk, black-tailed jackrabbit, desert cottontail, scaled quail, burrowing owl, mourning dove, wrens, various hawks, bull snake, prairie rattlesnake, plain hognose snake, western hooknose snake and numerous lizards (Biota Information System of New Mexico 2023; Brown 1994). Important animal species prehistorically include deer, jackrabbit, and cottontail.

Geology underlying the project area comprises Holocene to middle Pleistocene eolian deposits ([Qe] [U.S. Geological Survey 2023]). One soil is present within the project area: Reagan-Upton association, 0 to 9 percent slopes, are well drained, with a low runoff class (Natural Resources Conservation Service 2023).

Weather data for the survey area was compiled using the Carlsbad Caverns, New Mexico (291480), climate station data (period of record February 1, 1930, to June 6, 2016). Rainfall in the survey area can occur year-round but is most abundant from May through October. During that time period, rainfall totals 30.1 cm (11.9 inches), with an average of 5.0 cm (1.98 inches) per month for those months; September has the heaviest average precipitation. Snowfall is heaviest during December at 5.6 cm (2.2 inches) and can fall between October and March. Temperatures are coldest in December and January at 0.8

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

degree Celsius (33.6 degrees Fahrenheit) and warmest in June at 32.8 degrees Celsius (91.1 degrees Fahrenheit) (Western Regional Climate Center 2023).

Biota Information System of New Mexico
2023 Database Query for Eddy County. Available at: http://www.bison-m.org/. Accessed June 2023.

Griffith, G. E., J. M. Omernik, M. M. McGraw, G. Z. Jacobi, C. M. Canavan, T. S. Schrader, D. Mercer, R. Hill, and B. C. Moran
2006 Ecoregions of New Mexico. Color poster with map, descriptive text, summary tables, and photographs. Map scale 1:1,100,000. U.S. Geological Survey, Reston, Virginia.

Natural Resources Conservation Service
2023 Web Soil Survey of Eddy County, New Mexico. Available at: http://websoilsurvey.nrcs.usda.gov/app/. Accessed June 2023.

Western Regional Climate Center
2023 Climate Summary for Carlsbad Caverns Climate Station (291480). Available at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm1480. Accessed June 2023

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Methodology

Percent Ground Visibility

Ground Visibility: 76-99 %

Condition of Survey Area: The survey area had minimal disturbances from wind and water processes, modern trash on the south end, no significant animal burrows or evidence of cattle grazing. An overhead transmission line is present, however, there are no poles within survey area. The surrounding area is heavily disturbed with access roads, buried pipelines, surface flow lines, well pads, and transmission lines in close proximity.

Attachments (check all appropriate boxes)

- ✔ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)
- ✔ Copy of NMCRIS Map Check (required)
- ☐ LA Site Forms – new sites (with sketch map & topographic map) if applicable
- ☐ LA Site Forms (update) – previously recorded & un0relocated sites (first 2 pages minimum)
- ☐ List and Description of Isolates, if applicable
- ☐ List and Description of Collections, if applicable

Other Attachments

- ✔ Photographs and Log
- ☐ Other attachments **Describe:**

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Cultural Resource Findings

Investigation Results

Archaeological Sites Discovered and Registered:	0
Archaeological Sites Discovered and NOT Registered:	0
Previously Recorded Archaeological Sites Revisited (site update form required):	0
Previously Recorded Archaeological Sites Not Relocated (site update form required):	0
Total Archaeological Sites (visited & recorded):	0
Total Isolates Recorded:	0

✔ Non-Selective Isolate Recording

HCPI Properties Discovered and Registered:	0
HCPI Properties Discovered And NOT Registered:	0
Previously Recorded HCPI Properties Revisited:	0
Previously Recorded HCPI Properties NOT Relocated:	0
Total HCPI Properties (visited & recorded, including acequias):	0
If No Cultural Resources Found, Discuss Why:	0

Management Summary

SWCA surveyed a 60.96-m (200-feet) buffer around the proposed project center point for a total survey area of 28.84 acres (11.67 hectares). NMCRIS 139403 is a previously qualifying survey used to reduce the survey area to a total of 0.05 acres (0.02 hectares). No archaeological sites or historic cultural properties (buildings, structures, or objects) or isolated occurrences were observed. This is likely due to the small survey area in addition to the previous surveys around the project also finding no cultural materials.

Summary: SLO cultural resources preservation efforts requires that an archaeological survey be conducted to current standards for the APE pursuant to and in compliance with New Mexico Administrative Code (NMAC) 4.10.15 to ensure that cultural properties are not inadvertently excavated, harmed, or destroyed by any person. SWCA recommends that the proposed project will have no effect on any cultural resources listed or eligible for listing in the New Mexico State Register of Cultural Properties or the National Register of Historic Places. However, if buried cultural deposits are discovered during project construction, work should cease immediately, and the New Mexico SLO and State Historic Preservation Officer should be contacted

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Attachments

Documents:

Attachment Type	Description	Name	File Type	Size	Upload Date	Upload By
Report/Manuscript	NMCRIS_153228 NIAF	NMCRIS_153228	PDF Document	6,087KB	22-June-2023	Paisley DeFreese

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

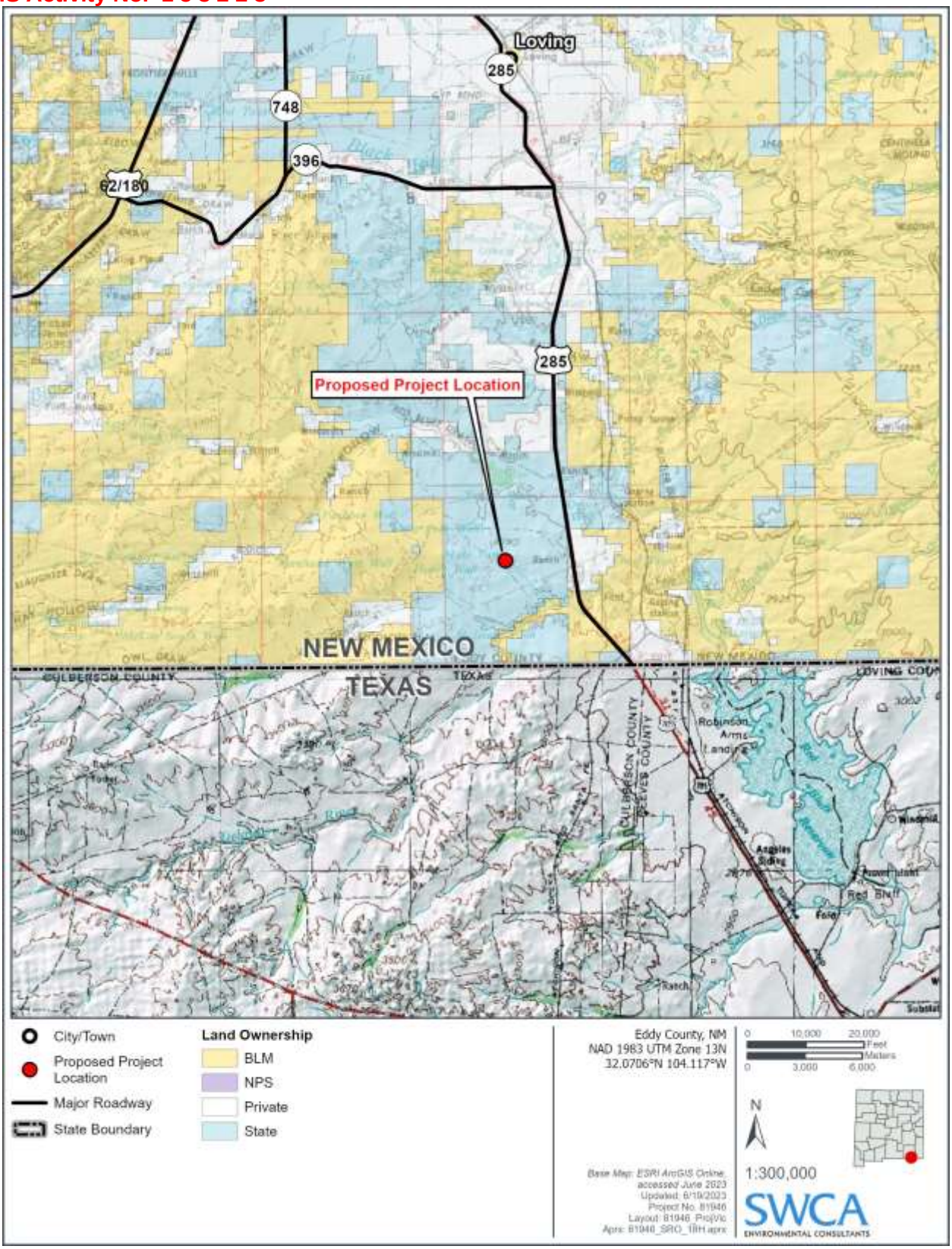

Figure 1. Project vicinity map.

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

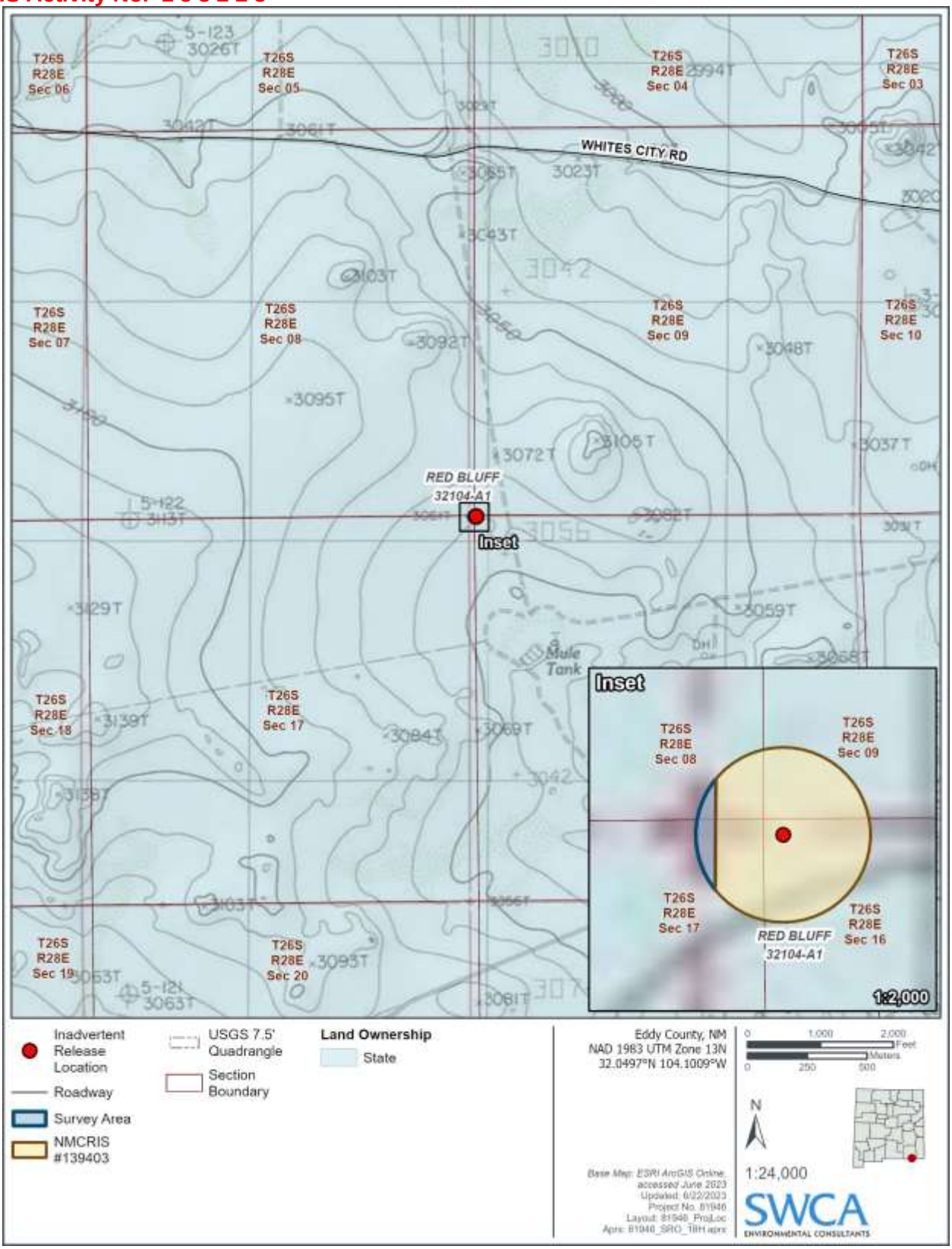

Figure 2. Project location map.

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Figure 3. Project overview, facing north (Frame -0716).

Figure 4. Project overview, facing south (Frame -1909).

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Figure 5. Project overview, facing east (Frame -9561).

Figure 6. Project overview, facing west (Frame -9638).

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 3 2 2 8

Table 1. Previously Known Cultural Resources within 500 m (0.31 mile) of the Project Area

***Redacted**

Table 2. Previously Completed Cultural Resource Surveys within 500 m (0.31 mile) of the Project Area

NMCRIS No.	Performing Agency	Date	Acres	Resources Recorded
121605	Boone Arch Svcs of NM	7/23/2011	144.87	2
132233	Statistical Research, Inc.	7/8/2014	9528.07	79
137894	Boone Archaeological Consultants, LLC.	4/13/2017	41.23	0
139403	Lone Mountain Archaeological Services	11/4/2017	487.19	10

***Redacted**

Figure 7. ARMS screenshot with the survey area shown with a blue polygon and previous surveys displayed with orange and brown polygons.

Poole, Nicholas

From: Knight, Tami C. <tknight@slo.state.nm.us>
Sent: Tuesday, June 6, 2023 12:21 PM
To: Dickerson, Ryan
Cc: Llull, Christian; Chama, Sam; Poole, Nicholas; SLO Surface ECO
Subject: RE: SRO State Com #018H Flowline Release - DOR 7/4/2017 - Incident ID nAB1719137895
Attachments: Document Review.pdf

Ryan

ECO's understanding is that the proposed work approved by OCD has not taken place yet for release ID nAB1719137895 and nAB1730649817, which are both associated with SRO State Com #18H. Is our understanding correct?

ECO is not approving placement of plastic liner as a means of remediation on State Trust Land. Please submit a revised workplan that includes an alternative remediation method that does not include a plastic liner. Additionally, the revised workplan must include a confirmation sampling plan and a reclamation plan since the remediation work is occurring on a ROW and in a pasture.

The attached document can be used as checklist to ensure written plans include all required information for OCD and NMSLO. Just a reminder, the attached document is not for you to complete, this is an internal document used by ECO.

Thank you

Tami Knight, CHMM
Environmental Specialist
SLO Surface ECO
Mobile: (505) 670-1638
tknight@slo.state.nm.us

From: Dickerson, Ryan <Ryan.Dickerson@tetratech.com>
Sent: Thursday, May 18, 2023 1:56 PM
To: SLO Spills <spills@slo.state.nm.us>

Cc: Knight, Tami C. <tknight@slo.state.nm.us>; Llull, Christian <Christian.Llull@tetratech.com>; Chama, Sam <SAM.CHAMA@tetratech.com>; Poole, Nicholas <NICHOLAS.POOLE@tetratech.com>
Subject: [EXTERNAL] SRO State Com #018H Flowline Release - DOR 7/4/2017 - Incident ID nAB1719137895

Tami,
Below are site details associated with Incident ID nAB1719137895 (2RP-4288) that occurred at the SRO State Com #018H (30-015-39999).

Incident ID nAB1719137895 Details:

- Release Location: 32.049960°, -104.101010°
- Site is located in Eddy County, NM.
- Landowner: NMSLO
- The Site is in an area of medium karst potential.
- According to the C-141 (attached) , the release occurred on July 4, 2017.
    - The release consisted of 30 barrels of produced water and 0.5 barrel of crude oil, of which 5 barrels of produced water were recovered.
    - The release was caused by a pinhole in a water transfer line check valve.
- The release occurred in pasture along a right-of-way.
- In August 2017, COG installed two trenches to assess the release.
- Based on the soil sample results, Tetra Tech, on behalf of COG, submitted a Work Plan to the OCD on 9/19/2017 (see attached).
- The Work Plan for proposed remediation was approved by Mike Bratcher of the OCD via email dated 10/3/2017.

In accordance with the NMOCD-approved Work Plan, Tetra Tech, on behalf of ConocoPhillips, proposes to conduct remedial activities as shown in the attached .kmz file.

- The northern portion of the release area will be excavated to 4 feet below ground surface and a 40 mil liner installed along excavation floor.
- The southern portion will be excavated to 6 feet below ground surface.

Based on the above site details and approved Work Plan, is Tetra Tech cleared to move forward with the remedial action?

Thanks,

Ryan

Ryan Dickerson | Project Geologist
Cell **+1 (512) 217-7254** | ryan.dickerson@tetratech.com

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8911 N. Capital of TX Hwy. | Bldg. 2, Ste 2310 | Austin, TX 78759 | tetratech.com

Poole, Nicholas

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Tuesday, October 10, 2023 11:13 AM
To: Carroll, Ryan
Cc: Tavarez, Ike; Llull, Christian
Subject: RE: [EXTERNAL] Depth to Groundwater Determination Request - Incident IDs: nAB1730649817 and nAB1719137895 (SRO State Com #018H)

Ryan,

The Spill Rule Clarifications states "If the operator has applicable information which does not meet the above preference, we will review it on a case-by-case basis to determine if it is acceptable."

The attached groundwater determination for the site is acceptable to the OCD for the SRO State Com #018H releases.

If the workplans will not be implemented as written, new workplans pursuant to 19.15.29 NMAC will need to be submitted with timelines and meet all applicable regulatory agency requirements.

Please let me know if you have any questions or require additional information.

Thank you,
Brittany Hall ● Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd/

From: Carroll, Ryan <RYAN.CARROLL@tetratech.com>
Sent: Friday, October 6, 2023 12:45 PM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>; Llull, Christian <Christian.Llull@tetratech.com>
Subject: [EXTERNAL] Depth to Groundwater Determination Request - Incident IDs: nAB1730649817 and nAB1719137895 (SRO State Com #018H)

Hi Brittany,

We have identified a borehole that was drilled at a nearby site and would like to request a review by OCD to determine if it is acceptable to utilize this borehole to determine depth to groundwater at SRO State Com 18H.

The attached log is a depth to water determination borehole, which was drilled on March 1, 2023 at the Graham Cracker 16 State site. It is located approximately 0.6 miles east of SRO State 18H. The borehole coordinates are: 32.049763°, -104.090109°.

The coordinates for the SRO State releases are noted below:

nAB1730649817: 32.04999°, -104.101°
nAB1719137895: 32.049943°, -104.100937°

Additionally, if the OCD does accept this groundwater determination borehole, we would like to get clarification on how to proceed. We have approved work plans, however, one of the work plans proposed a liner and the NMSLO would not approve the liner. With a groundwater determination between 51-100 feet, a liner will no longer be necessary, and we could implement the remediation to the applicable soil closure criteria for both releases. Could we proceed with the remediation, assuming no approval issues with NMSLO since a liner would not be needed, or would we need to submit revised work plans?

Please let me know if you have any questions or need additional information.

Thanks, Ryan

Ryan Carroll | Senior Project Manager | Tetra Tech
Direct **(832) 251-5161** | Mobile **(617) 461-3533**

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Tuesday, October 3, 2017 7:38 AM
To: Gonzales, Clair; Groves, Amber
Cc: Tavarez, Ike; Rebecca Haskell; Dakota Neel; Aaron Lieb; Robert McNeill; slhitchcock@concho.com
Subject: RE: COG SRO State Com #18H Work Plan Approval Request (2RP-4288)

RE: COG * SRO St 18H * 2RP-4288 * DOR: 7/4/17

COG's proposal for remediation of the above referenced release is approved. Please advise in the event proposed excavation depths are not achieved. Please advise once remedial activities have been scheduled.

MS. Gonzales: Please include Crystal Weaver in all correspondence to the OCD District 2 Office. crystal.weaver@state.nm.us Be advised this is not optional.

Thank you,

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Gonzales, Clair [mailto:Clair.Gonzales@tetratech.com]
Sent: Monday, October 2, 2017 10:49 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Groves, Amber <agroves@slo.state.nm.us>
Cc: Tavarez, Ike <Ike.Tavarez@tetratech.com>; Rebecca Haskell <RHaskell@concho.com>; Dakota Neel <DNeel2@concho.com>; Aaron Lieb <ALieb@concho.com>; Robert McNeill <RMcNeill@concho.com>; slhitchcock@concho.com
Subject: COG SRO State Com #18H Work Plan Approval Request (2RP-4288)

Good Afternoon,

Attached is the work plan for the above referenced site located in Eddy County, New Mexico. Once approved, COG will implement the proposed work plan. Let me know if you have any questions or concerns.

Thank you,

Clair Gonzales

Clair Gonzales | **Geologist III**
Phone: 432.687.8123| Mobile 432.260.8634 | Fax:432.682.3946
clair.gonzales@tetratech.com

Tetra Tech | Complex World, CLEAR SOLUTIONS™
4000 N. Big Spring | Midland, TX 79705 | www.tetratech.com

Poole, Nicholas

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Thursday, September 21, 2023 8:56 AM
To: Carroll, Ryan
Cc: Rodgers, Scott, EMNRD; Bratcher, Michael, EMNRD; Llull, Christian
Subject: RE: [EXTERNAL] Extension Request - nAB1730649817 and nAB1719137895 (SRO State Com #018H)

Ryan,
The extension request for incident numbers nAB1730649817 and nAB1719137895 is approved. The new due date is December 20, 2023.

Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Can you provide the reasons that the NMSLO did not approve the remediation work plan?

Thank you,
Brittany Hall • Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd/

From: Carroll, Ryan <RYAN.CARROLL@tetratech.com>
Sent: Wednesday, September 20, 2023 3:28 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Llull, Christian <Christian.Llull@tetratech.com>
Subject: [EXTERNAL] Extension Request - nAB1730649817 and nAB1719137895 (SRO State Com #018H)

To Whom It May Concern,

On behalf of ConocoPhillips, Tetra Tech is requesting a 90-day extension (until December 20, 2023) to complete additional assessment activities and associated reporting for the SRO State #018H release sites (**nAB1730649817 and nAB1719137895**). The releases were discovered on July 4, 2017, and October 27, 2017, respectively. A Delineation Work Plan was submitted to the New Mexico Oil Conservation Commission (NMOCD) on November 2, 2017, and the Work Plan was resubmitted on November 1, 2022. The NMOCD responded on November 29, 2022, stating that horizontal delineation will need to be completed during confirmation sampling and confirmation samples of all side walls and bases must be representative of no more than 200 square feet.

The release footprint is located on State Trust lands, and the NMSLO did not approve the remediation work plan that was previously approved by the NMOCD, which may require additional assessment to complete a revised Work Plan. Additionally, the New Mexico State Land Office has recently begun enforcing application and permitting requirements for Water/Soil Boring Exploration Permits, Right of Entry and Cultural Surveys (per Rules 10, 12 and 24), and must be

permitted through the Water Bureau, Oil, Gas, and Minerals Division and/or Commercial Resources Division of New Mexico State Land Office.

Tetra Tech and ConocoPhillips experienced a delay implementing response actions for the SRO State #018H Releases due to NMSLO work plan rejection and in order to comply with these permitting rules. The allocation of resources required to complete the permitting process are demanding and require additional time for coordination with regulatory personnel. We have identified a depth to water boring location that appears to be close enough to the site to utilize for determining depth to groundwater. Additionally, we have completed the cultural resources survey (attached). Tetra Tech and ConocoPhillips are prepared to initiate additional assessment activities, as needed, and submit a revised Work Plan once we obtain the right of entry permit.

Please let me know if you have any questions or concerns.

Thank you,

Ryan

Ryan Carroll | Senior Project Manager | Tetra Tech
Direct **(832) 251-5161** | Mobile **(617) 461-3533**

APPENDIX C
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 02160 S7	CUB	ED	3	3	1	22	26S	28E	586638	3543998*	2923	300	120	180
C 02479	CUB	ED		4	4	10	26S	28E	587909	3546534*	3046	200		
C 02480	CUB	ED		4	4	10	26S	28E	587909	3546534*	3046	150		
C 02478	CUB	ED		2	1	05	26S	28E	583848	3549325*	3167	100		
C 04022 POD1	CUB	ED	4	4	2	15	26S	28E	588082	3545647	3282	220	175	45
C 02160 S5	CUB	ED	1	1	1	14	26S	28E	588225	3546237*	3356	300	120	180
C 02160 S6	CUB	ED	3	3	1	14	26S	28E	588232	3545635*	3432	300	120	180
C 02481	CUB	ED		1	1	14	26S	28E	588326	3546138*	3461	200		

Average Depth to Water: **133 feet**

Minimum Depth: **120 feet**

Maximum Depth: **175 feet**

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 584869.88 **Northing (Y):** 3546326.7 **Radius:** 3500

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

212C-MD-02989 | TETRA TECH | **LOG OF BORING DTW** | Page 1 of 1

Project Name: Graham Cracker 16 State #002H

Borehole Location: GPS Coordinate: 32.049763°, -104.090109° | Surface Elevation: 3058'

Borehole Number: **DTW** | Borehole Diameter (in.): | Date Started: 3/1/2023 | Date Finished: 3/1/2023

WATER LEVEL OBSERVATIONS

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

Remarks:

DEPTH (ft)	OPERATION TYPES	SAMPLE	CHLORIDE CONCENTRATION (ppm) ExStik	VOC CONCENTRATION (ppm) PID	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												**-SC-** CLAYEY SAND: Dark brown, loose, dry, fine grained, partially weakly cemented, with trace Caliche	2	
5												**-SM-** SAND: Light brown, loose, dry, fine grained, with gravel-sized Caliche -- Transitions to with partially weakly cemented Sand pockets	9	
10												**-SC-** SAND: Light brown to brown, medium dense, dry, fine to medium grained, with loose coarse Sand pockets		
15														
20														
25														
30														
35													34	
40												**-SM-** SAND: Light brown to brown, loose, dry, fine grained, with partially cemented Clayey Sand pockets	44	
45												**-ML-** SAND: Light brown, medium dense, dry, very fine to fine grained, with Clayey Sand pockets	49	
50												**-SM-** SILTY SAND: Light brown, dense, dry, very fine to fine grained, partially cemented, with occasional Clayey Sand seams		
55													55	

Bottom of borehole at 55.0 feet.

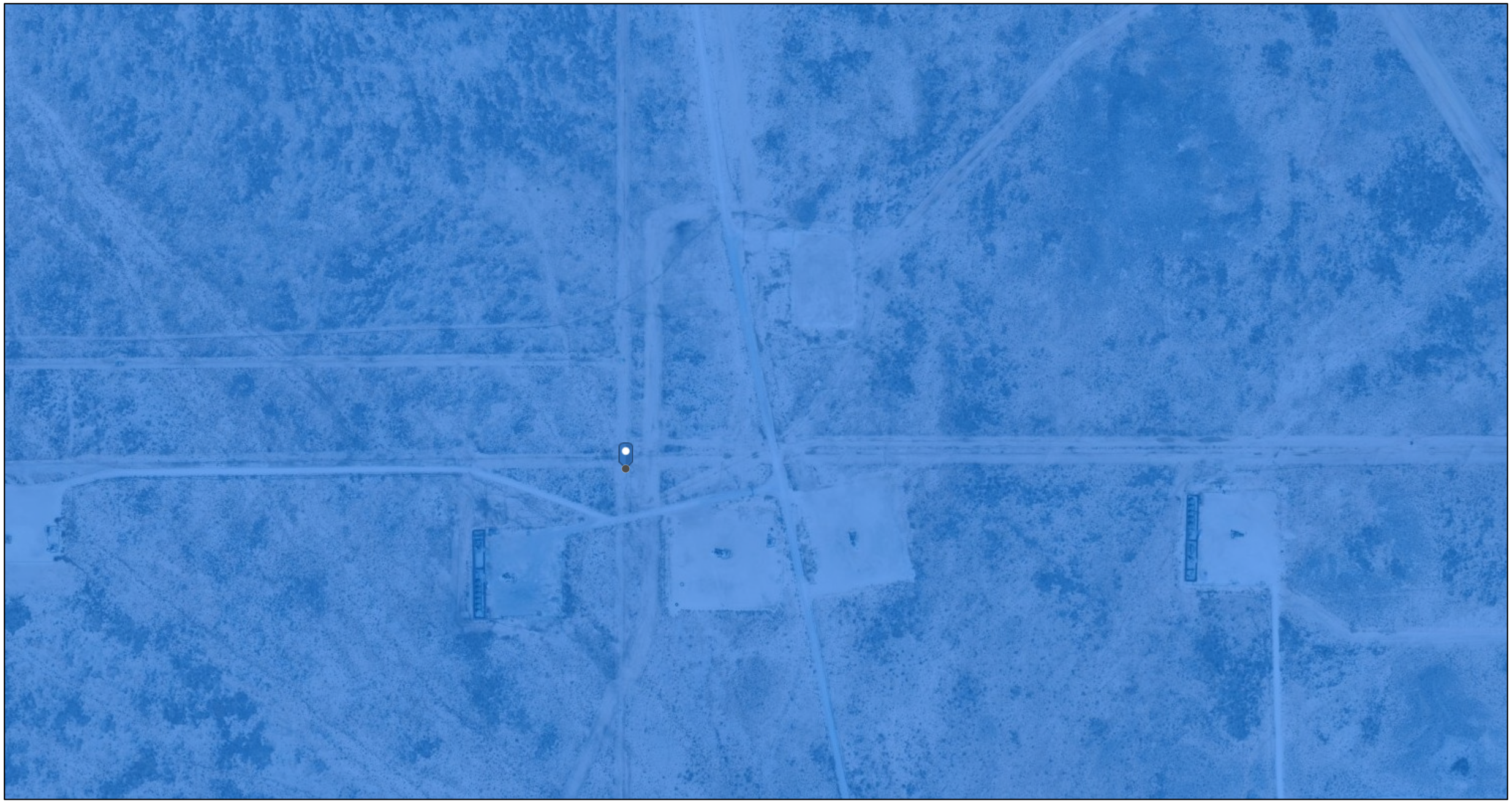
Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

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

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

Logger: Lee Scarborough | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

OCD Karst Potential



10/12/2023, 2:00:16 PM

Karst Occurrence Potential

Medium

1:4,514

0 0.05 0.1 0.19 mi

0 0.07 0.15 0.3 km

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

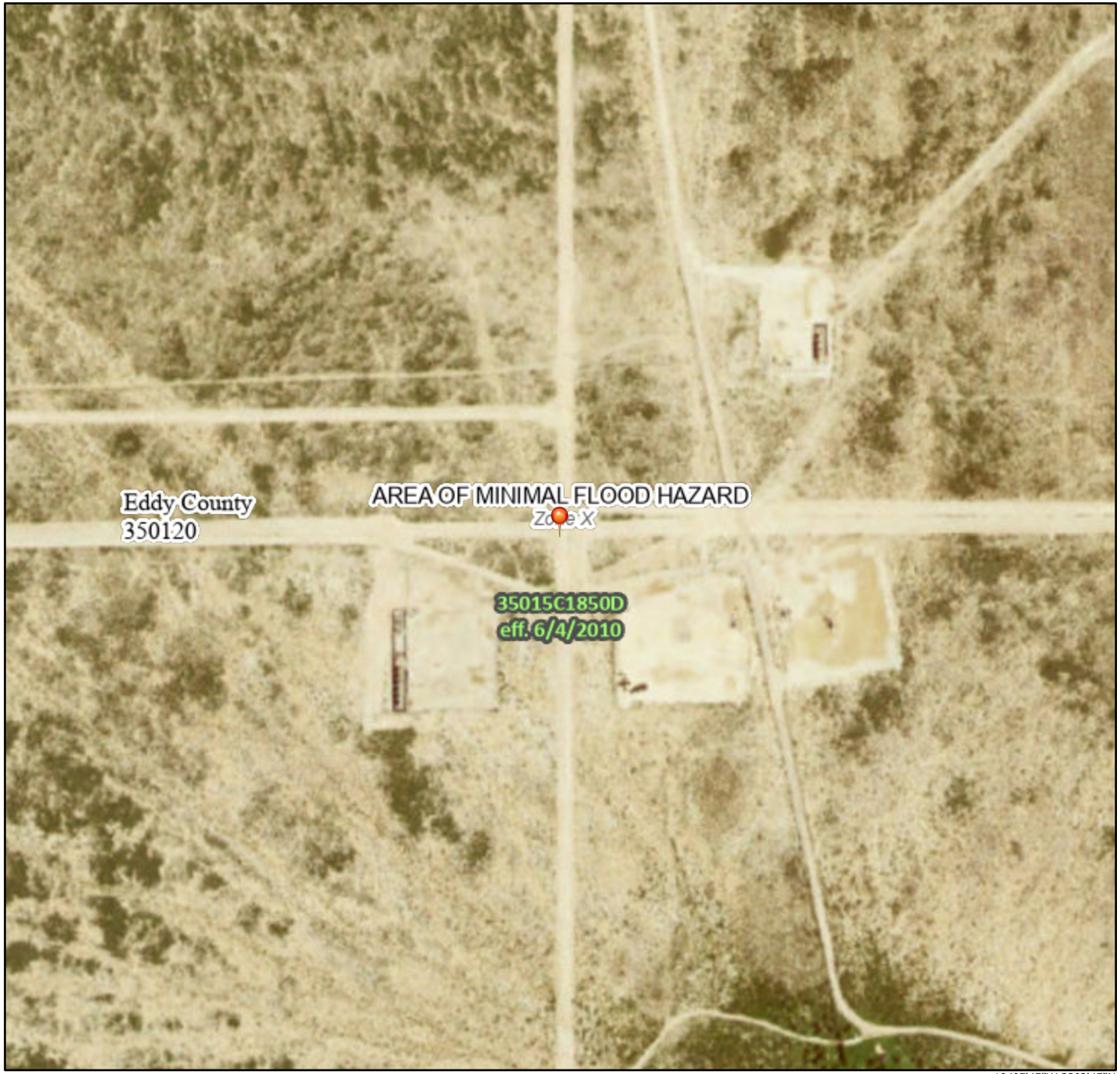
New Mexico Oil Conservation Division

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

National Flood Hazard Layer FIRMette

FEMA

104°6'22"W 32°3'15"N



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

1:6,000

104°5'45"W 32°2'45"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

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

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

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

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

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/8/2023 at 1:27 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

OCD Waterbodies Map

10/12/2023, 2:04:38 PM

OSW Water Bodys

OSE Streams

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

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

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

OCD Surface Ownership Map

12/8/2023, 12:24:38 PM

Mineral Ownership

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

Land Ownership

S

PLSS Second Division

PLSS First Division

1:2,257

0 0.02 0.04 0.09 mi

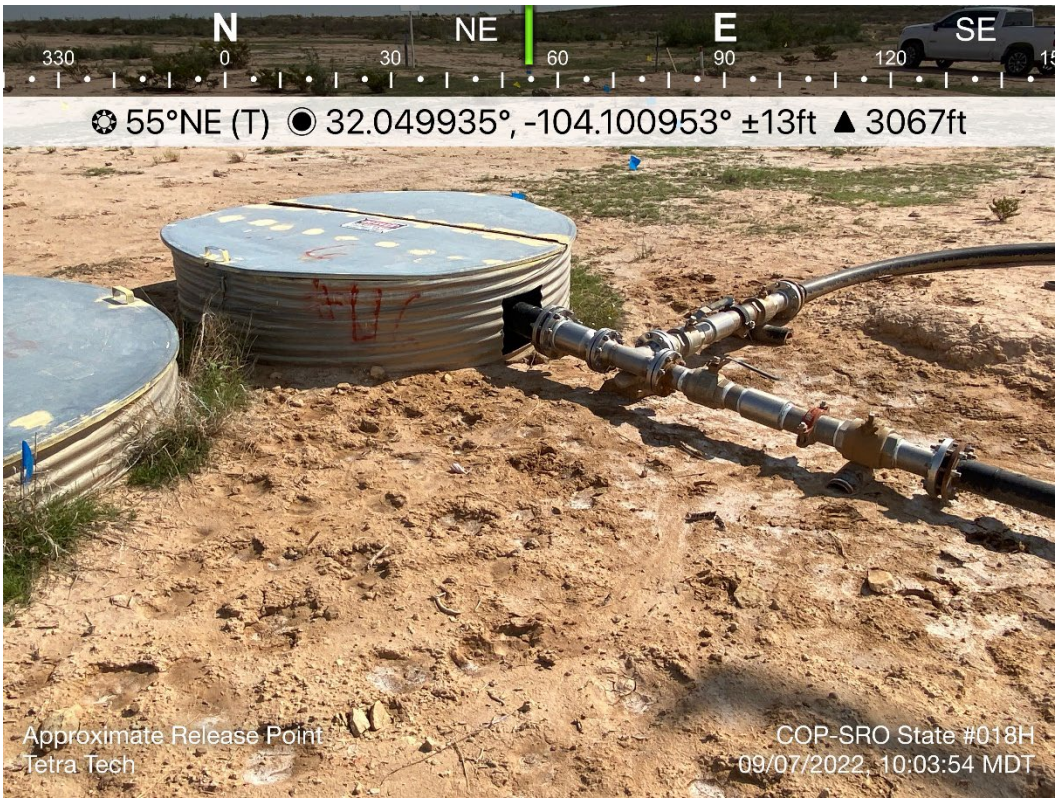
0 0.04 0.07 0.15 km

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

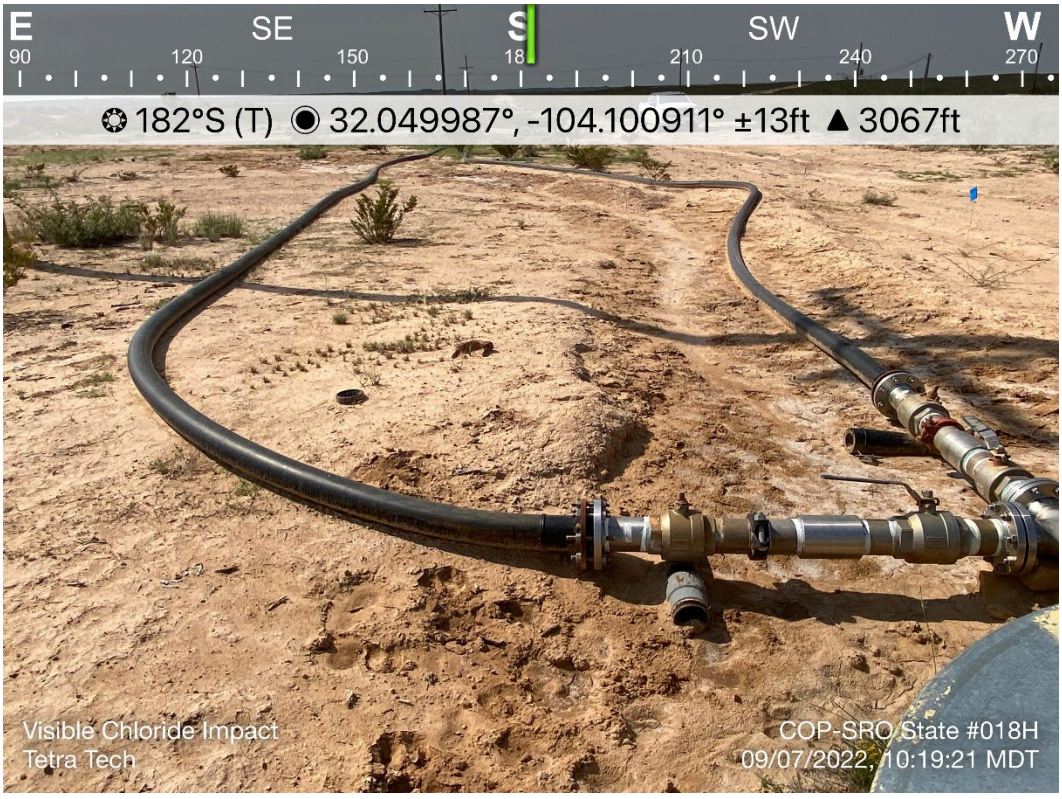
APPENDIX D
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	Site signage. SRO State Unit #18H and location information	1
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022

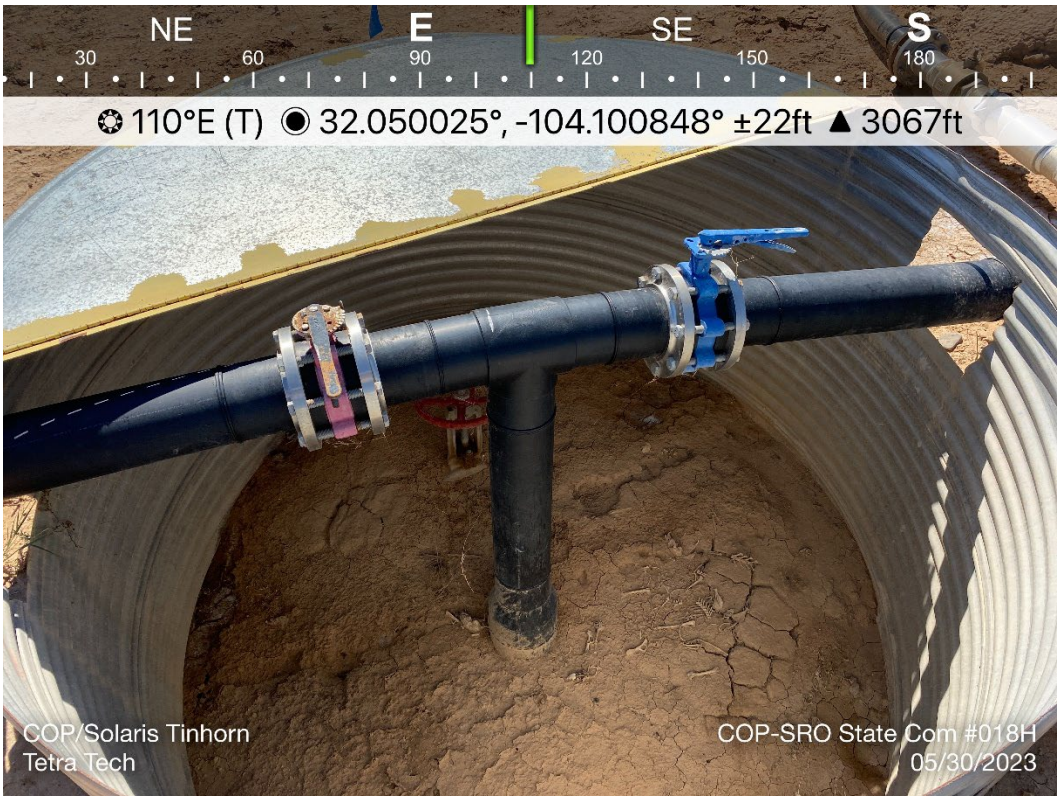
TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View south. Valve can and surface utilities. Release area with visible chloride staining.	2
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	5/30/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View northeast. Valve can and surface utilities. Release area with visible chloride staining.	3
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022

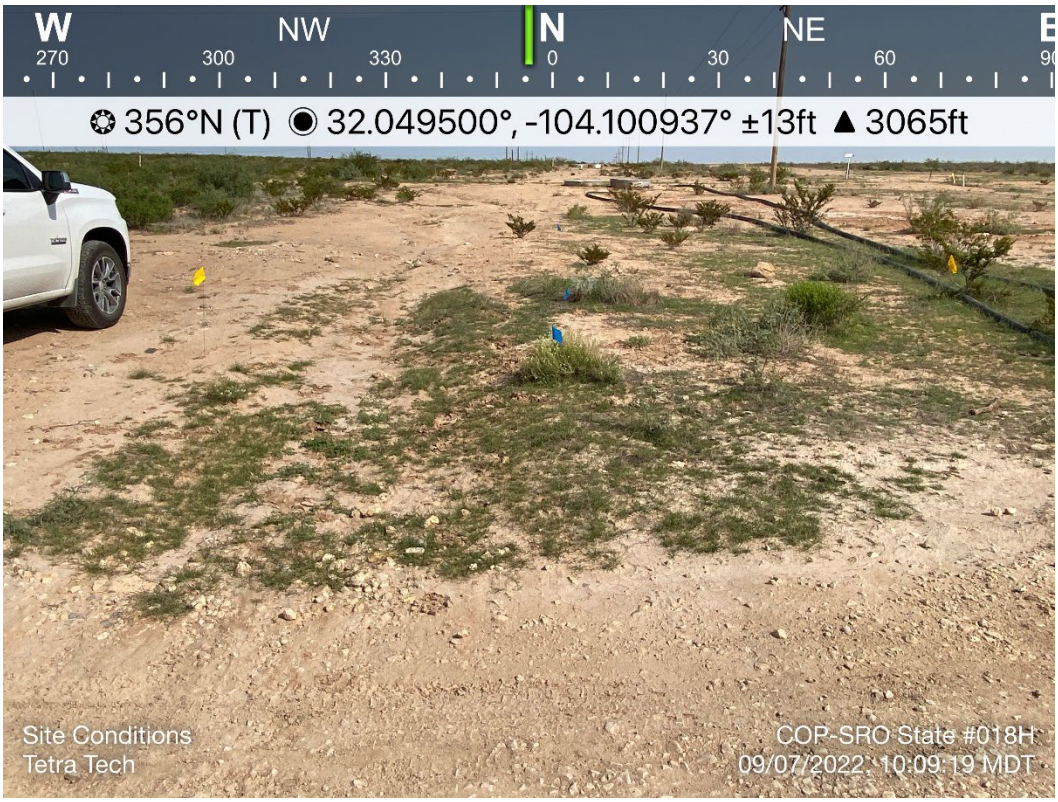


TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View south from release point. Surface polylines, erosional features, visible chloride staining.	4
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022



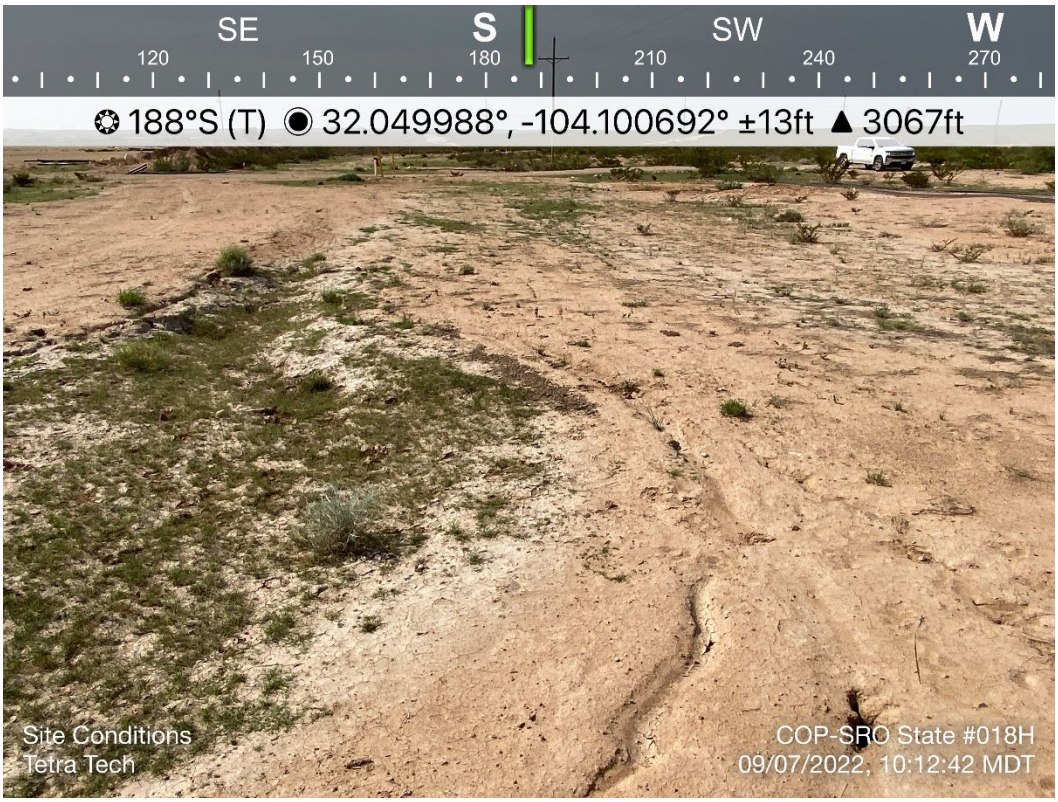
TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View inside the Solaris valve can.	5
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	5/30/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View west. Subsurface Solaris water line.	6
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	5/30/2023

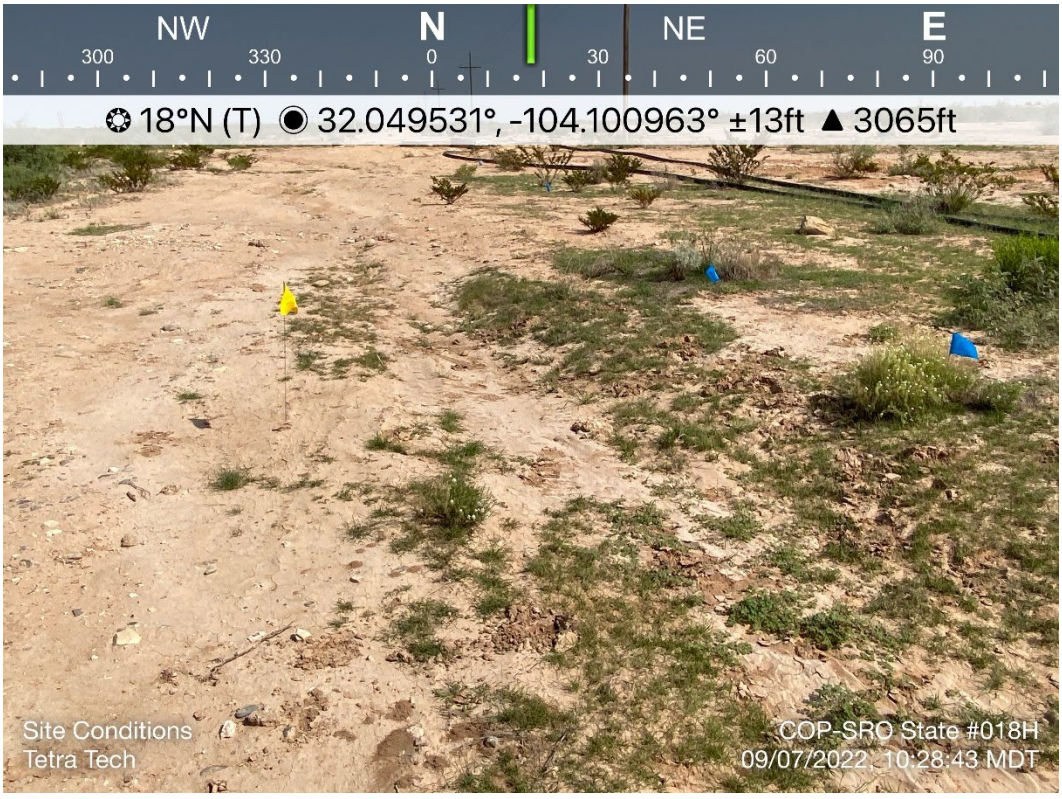


TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View north from southern end of release extents. Subsurface line markings.	7
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022

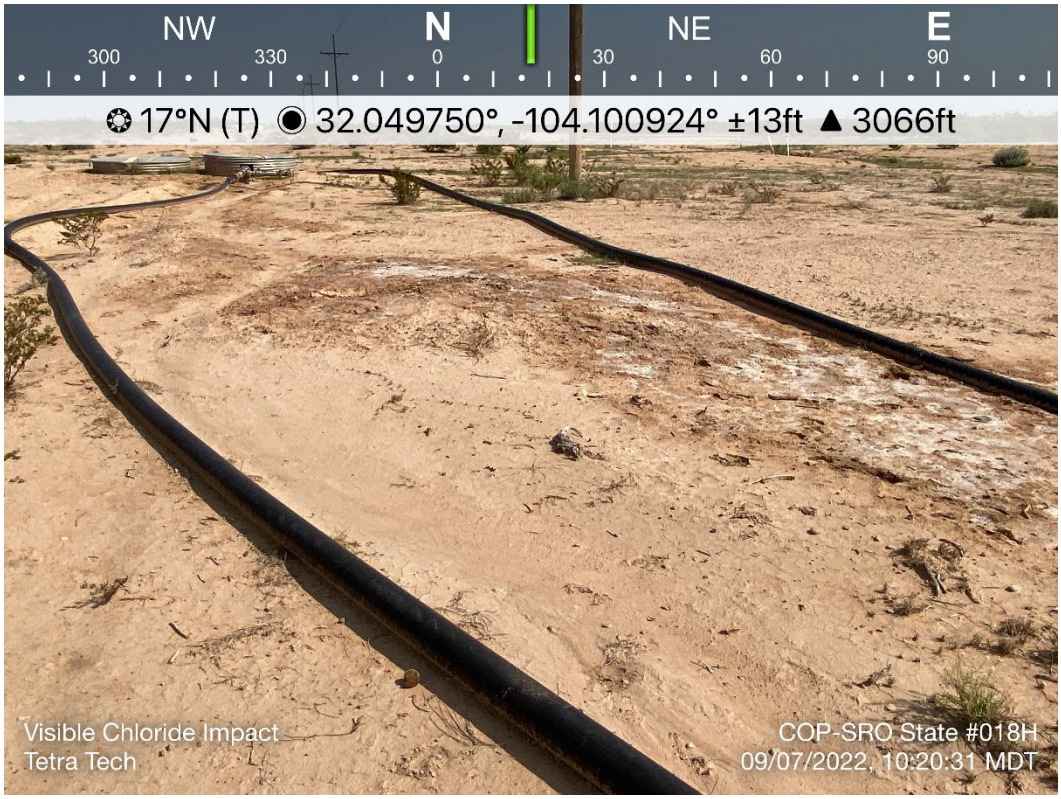
TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View south. Surface polylines and visible chloride staining.	8
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022



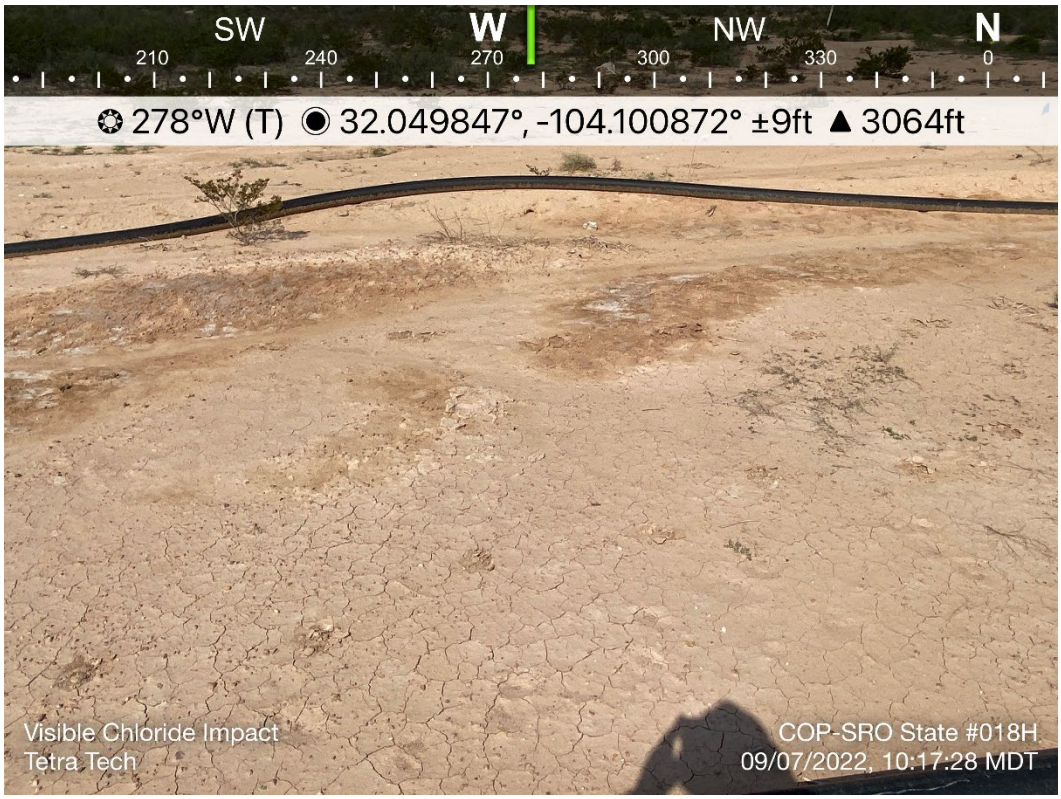
TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View south. Erosional features and visible surface staining.	9
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View north northeast. Marked subsurface utilities and erosional features.	10
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View north northeast. Surface polylines and visible chloride staining.	11
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02826	DESCRIPTION	View west. Surface polyline and visible chloride staining.	12
	SITE NAME	SRO State Com #018H (nAB1719137895/ nAB1730649817)	9/7/2022

APPENDIX E
Laboratory Analytical Data

Certificate of Analysis Summary 560033

COG Operating LLC, Artesia, NM

Project Name: SRO State Com #018H

Project Id:

Contact: Aaron Lieb

Project Location: SRO State Com #018H

Date Received in Lab: Fri Aug-11-17 11:45 am

Report Date: 22-AUG-17

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560033-001		560033-002		560033-003		560033-004		560033-005		560033-006	
	Field Id:	T1-Surface		T1-1'		T1-2'		T1-3'		T1-4'		T1-6'	
	Depth:			1- ft		2- ft		3- ft		4- ft		6- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-07-17 09:30		Aug-07-17 09:30		Aug-07-17 09:30		Aug-07-17 09:30		Aug-07-17 09:30		Aug-07-17 09:45	
BTEX by EPA 8021B	***Extracted:***	Aug-15-17 11:00		Aug-15-17 11:00		Aug-15-17 11:00		Aug-15-17 11:00		Aug-15-17 11:00			
	Analyzed:	Aug-15-17 23:03		Aug-15-17 23:20		Aug-16-17 00:16		Aug-16-17 00:35		Aug-15-17 20:33			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198		
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198		
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	0.00531	0.00200	<0.00200	0.00200	<0.00198	0.00198		
m,p-Xylenes		0.00703	0.00398	0.00415	0.00401	0.0391	0.00399	<0.00399	0.00399	<0.00396	0.00396		
o-Xylene		0.00564	0.00199	0.00457	0.00200	0.0298	0.00200	<0.00200	0.00200	<0.00198	0.00198		
Total Xylenes		0.0127	0.00199	0.00872	0.00200	0.0689	0.00200	<0.00200	0.00200	<0.00198	0.00198		
Total BTEX		0.0127	0.00199	0.00872	0.00200	0.0742	0.00200	<0.00200	0.00200	<0.00198	0.00198		
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-21-17 11:00		Aug-21-17 11:00		Aug-21-17 11:00		Aug-21-17 11:00		Aug-18-17 17:00		Aug-18-17 17:00	
	Analyzed:	Aug-21-17 22:37		Aug-21-17 22:45		Aug-21-17 22:53		Aug-21-17 23:00		Aug-18-17 19:48		Aug-18-17 20:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		12800	99.6	11200	99.8	10600	99.4	6850	98.2	6310	98.6	5320	49.9
TPH By SW8015 Mod	***Extracted:***	Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00			
	Analyzed:	Aug-14-17 13:14		Aug-14-17 14:16		Aug-14-17 14:36		Aug-14-17 14:57		Aug-14-17 15:17			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)		1250	15.0	<15.0	15.0	62.5	15.0	<15.0	15.0	<15.0	15.0		
Oil Range Hydrocarbons (ORO)		474	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Total TPH		1720	15.0	<15.0	15.0	62.5	15.0	<15.0	15.0	<15.0	15.0		

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Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 560033

COG Operating LLC, Artesia, NM

Project Name: SRO State Com #018H

Project Id:

Contact: Aaron Lieb

Project Location: SRO State Com #018H

Date Received in Lab: Fri Aug-11-17 11:45 am

Report Date: 22-AUG-17

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560033-007		560033-008		560033-009		560033-010		560033-011		560033-012	
	Field Id:	T1-8'		T1-10'		T1-12'		T1-14'		T1-17'		T2-Surface	
	Depth:	8- ft		10- ft		12- ft		14- ft		17- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-07-17 09:45		Aug-07-17 09:45		Aug-07-17 09:45		Aug-07-17 10:00		Aug-07-17 10:00		Aug-07-17 10:15	
BTEX by EPA 8021B	***Extracted:***									Aug-15-17 11:00		Aug-15-17 11:00	
	Analyzed:									Aug-15-17 20:52		Aug-15-17 21:10	
	Units/RL:									mg/kg	RL	mg/kg	RL
Benzene										<0.00201	0.00201	<0.00200	0.00200
Toluene										<0.00201	0.00201	0.298	0.00200
Ethylbenzene										<0.00201	0.00201	0.289	0.00200
m,p-Xylenes										<0.00402	0.00402	0.253	0.00399
o-Xylene										<0.00201	0.00201	0.202	0.00200
Total Xylenes										<0.00201	0.00201	0.455	0.00200
Total BTEX										<0.00201	0.00201	1.04	0.00200
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00	
	Analyzed:	Aug-18-17 20:19		Aug-18-17 20:26		Aug-18-17 20:34		Aug-18-17 20:57		Aug-18-17 21:05		Aug-18-17 21:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2650	49.1	1200	24.9	1250	24.6	285	4.99	210	4.92	8150	49.4
TPH By SW8015 Mod	***Extracted:***									Aug-14-17 11:00		Aug-14-17 11:00	
	Analyzed:									Aug-14-17 15:37		Aug-14-17 15:58	
	Units/RL:									mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)										<15.0	15.0	175	15.0
Diesel Range Organics (DRO)										<15.0	15.0	622	15.0
Oil Range Hydrocarbons (ORO)										<15.0	15.0	97.9	15.0
Total TPH										<15.0	15.0	895	15.0

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Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 560033

COG Operating LLC, Artesia, NM

Project Name: SRO State Com #018H

Project Id:

Contact: Aaron Lieb

Project Location: SRO State Com #018H

Date Received in Lab: Fri Aug-11-17 11:45 am

Report Date: 22-AUG-17

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560033-013		560033-014		560033-015		560033-016		560033-017		560033-018	
	Field Id:	T2-1'		T2-2'		T2-3'		T2-4'		T2-6'		T2-8'	
	Depth:	1- ft		2- ft		3- ft		4- ft		6- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-07-17 10:15		Aug-07-17 10:15		Aug-07-17 10:15		Aug-07-17 10:15		Aug-07-17 10:15		Aug-07-17 10:15	
BTEX by EPA 8021B	***Extracted:***	Aug-15-17 11:00		Aug-15-17 11:00		Aug-15-17 11:00		Aug-15-17 11:00					
	Analyzed:	Aug-15-17 21:29		Aug-15-17 21:48		Aug-15-17 22:07		Aug-15-17 22:26					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202				
Toluene		0.0121	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202				
Ethylbenzene		0.0415	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202				
m,p-Xylenes		0.235	0.00398	0.0121	0.00399	0.00403	0.00402	<0.00404	0.00404				
o-Xylene		0.159	0.00199	0.00565	0.00200	0.00377	0.00201	0.00323	0.00202				
Total Xylenes		0.394	0.00199	0.0178	0.00200	0.00780	0.00201	0.00323	0.00202				
Total BTEX		0.448	0.00199	0.0178	0.00200	0.00780	0.00201	0.00323	0.00202				
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00	
	Analyzed:	Aug-18-17 21:20		Aug-18-17 21:28		Aug-18-17 21:36		Aug-18-17 21:59		Aug-18-17 22:06		Aug-18-17 22:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		8450	49.8	9740	99.6	9750	99.4	4370	49.7	1420	24.9	470	24.8
TPH By SW8015 Mod	***Extracted:***	Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00					
	Analyzed:	Aug-14-17 16:18		Aug-14-17 16:38		Aug-14-17 16:59		Aug-14-17 18:01					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		42.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9				
Diesel Range Organics (DRO)		227	15.0	32.2	15.0	<15.0	15.0	<14.9	14.9				
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9				
Total TPH		269	15.0	32.2	15.0	<15.0	15.0	<14.9	14.9				

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560033

COG Operating LLC, Artesia, NM

Project Name: SRO State Com #018H

Project Id:

Contact: Aaron Lieb

Project Location: SRO State Com #018H

Date Received in Lab: Fri Aug-11-17 11:45 am

Report Date: 22-AUG-17

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560033-019		560033-020		560033-021		560033-022					
	Field Id:	T2-10'		T2-12'		T2-14'		T2-15'-16'					
	Depth:	10- ft		12- ft		14- ft		15-16 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-07-17 10:30		Aug-07-17 10:30		Aug-07-17 10:30		Aug-07-17 10:30					
BTEX by EPA 8021B	***Extracted:***							Aug-15-17 11:00					
	Analyzed:							Aug-15-17 22:44					
	Units/RL:							mg/kg	RL				
Benzene								<0.00200	0.00200				
Toluene								<0.00200	0.00200				
Ethylbenzene								<0.00200	0.00200				
m,p-Xylenes								<0.00401	0.00401				
o-Xylene								<0.00200	0.00200				
Total Xylenes								<0.00200	0.00200				
Total BTEX								<0.00200	0.00200				
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00		Aug-18-17 17:00					
	Analyzed:	Aug-18-17 22:37		Aug-18-17 22:45		Aug-18-17 22:52		Aug-18-17 23:00					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		349	25.0	159	4.94	280	24.6	359	24.7				
TPH By SW8015 Mod	***Extracted:***							Aug-14-17 11:00					
	Analyzed:							Aug-14-17 18:21					
	Units/RL:							mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)								<15.0	15.0				
Diesel Range Organics (DRO)								<15.0	15.0				
Oil Range Hydrocarbons (ORO)								<15.0	15.0				
Total TPH								<15.0	15.0				

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Kelsey Brooks
Project Manager

Final 1.000

Analytical Report 560033

for

COG Operating LLC

Project Manager: Aaron Lieb

SRO State Com #018H

22-AUG-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

22-AUG-17

Project Manager: **Aaron Lieb**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **560033**
SRO State Com #018H
Project Address: SRO State Com #018H

Aaron Lieb:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 560033. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 560033 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T1-Surface	S	08-07-17 09:30		560033-001
T1-1'	S	08-07-17 09:30	1 ft	560033-002
T1-2'	S	08-07-17 09:30	2 ft	560033-003
T1-3'	S	08-07-17 09:30	3 ft	560033-004
T1-4'	S	08-07-17 09:30	4 ft	560033-005
T1-6'	S	08-07-17 09:45	6 ft	560033-006
T1-8'	S	08-07-17 09:45	8 ft	560033-007
T1-10'	S	08-07-17 09:45	10 ft	560033-008
T1-12'	S	08-07-17 09:45	12 ft	560033-009
T1-14'	S	08-07-17 10:00	14 ft	560033-010
T1-17'	S	08-07-17 10:00	17 ft	560033-011
T2-Surface	S	08-07-17 10:15		560033-012
T2-1'	S	08-07-17 10:15	1 ft	560033-013
T2-2'	S	08-07-17 10:15	2 ft	560033-014
T2-3'	S	08-07-17 10:15	3 ft	560033-015
T2-4'	S	08-07-17 10:15	4 ft	560033-016
T2-6'	S	08-07-17 10:15	6 ft	560033-017
T2-8'	S	08-07-17 10:15	8 ft	560033-018
T2-10'	S	08-07-17 10:30	10 ft	560033-019
T2-12'	S	08-07-17 10:30	12 ft	560033-020
T2-14'	S	08-07-17 10:30	14 ft	560033-021
T2-15'-16'	S	08-07-17 10:30	15 - 16 ft	560033-022

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: SRO State Com #018H

Project ID:
Work Order Number(s): *560033*

Report Date: *22-AUG-17*
Date Received: *08/11/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3025050 TPH By SW8015 Mod

Lab Sample ID 560033-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO) recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 560033-001, -002, -003, -004, -005, -011, -012, -013, -014, -015, -016, -022.

The Laboratory Control Sample for Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3025341 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-Surface**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-001	Date Collected:	08.07.17 09.30		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 11.00	Basis:	Wet Weight
Seq Number:	3025634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12800**	99.6	mg/kg	08.21.17 22.37		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 13.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1250**	15.0	mg/kg	08.14.17 13.14		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**474**	15.0	mg/kg	08.14.17 13.14		1
Total TPH	PHC635	**1720**	15.0	mg/kg	08.14.17 13.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.14.17 13.14	
o-Terphenyl	84-15-1	126	%	70-135	08.14.17 13.14	

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-Surface**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-001	Date Collected:	08.07.17 09.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.17 23.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.17 23.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.17 23.03	U	1
m,p-Xylenes	179601-23-1	**0.00703**	0.00398	mg/kg	08.15.17 23.03		1
o-Xylene	95-47-6	**0.00564**	0.00199	mg/kg	08.15.17 23.03		1
Total Xylenes	1330-20-7	**0.0127**	0.00199	mg/kg	08.15.17 23.03		1
Total BTEX		**0.0127**	0.00199	mg/kg	08.15.17 23.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	82	%	80-120	08.15.17 23.03	
1,4-Difluorobenzene	540-36-3	90	%	80-120	08.15.17 23.03	

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-002	Date Collected:	08.07.17 09.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 11.00	Basis:	Wet Weight
Seq Number:	3025634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11200**	99.8	mg/kg	08.21.17 22.45		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 14.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 14.16	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 14.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 14.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.17 14.16	
o-Terphenyl	84-15-1	97	%	70-135	08.14.17 14.16	

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-002	Date Collected:	08.07.17 09.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.17 23.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.17 23.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.17 23.20	U	1
m,p-Xylenes	179601-23-1	**0.00415**	0.00401	mg/kg	08.15.17 23.20		1
o-Xylene	95-47-6	**0.00457**	0.00200	mg/kg	08.15.17 23.20		1
Total Xylenes	1330-20-7	**0.00872**	0.00200	mg/kg	08.15.17 23.20		1
Total BTEX		**0.00872**	0.00200	mg/kg	08.15.17 23.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.15.17 23.20	
4-Bromofluorobenzene	460-00-4	92	%	80-120	08.15.17 23.20	

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-2'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-003	Date Collected:	08.07.17 09.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 11.00	Basis:	Wet Weight
Seq Number:	3025634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10600**	99.4	mg/kg	08.21.17 22.53		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 14.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**62.5**	15.0	mg/kg	08.14.17 14.36		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 14.36	U	1
Total TPH	PHC635	**62.5**	15.0	mg/kg	08.14.17 14.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.14.17 14.36	
o-Terphenyl	84-15-1	96	%	70-135	08.14.17 14.36	

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-2'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-003	Date Collected:	08.07.17 09.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.16.17 00.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.16.17 00.16	U	1
Ethylbenzene	100-41-4	**0.00531**	0.00200	mg/kg	08.16.17 00.16		1
m,p-Xylenes	179601-23-1	**0.0391**	0.00399	mg/kg	08.16.17 00.16		1
o-Xylene	95-47-6	**0.0298**	0.00200	mg/kg	08.16.17 00.16		1
Total Xylenes	1330-20-7	**0.0689**	0.00200	mg/kg	08.16.17 00.16		1
Total BTEX		**0.0742**	0.00200	mg/kg	08.16.17 00.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	80-120	08.16.17 00.16	
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.16.17 00.16	

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-3'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-004	Date Collected:	08.07.17 09.30	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 11.00	Basis:	Wet Weight
Seq Number:	3025634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6850**	98.2	mg/kg	08.21.17 23.00		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 14.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 14.57	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 14.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 14.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.14.17 14.57	
o-Terphenyl	84-15-1	95	%	70-135	08.14.17 14.57	

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-3'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-004	Date Collected:	08.07.17 09.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.16.17 00.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.16.17 00.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.16.17 00.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.16.17 00.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.16.17 00.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.16.17 00.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.16.17 00.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	80-120	08.16.17 00.35	
4-Bromofluorobenzene	460-00-4	99	%	80-120	08.16.17 00.35	

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-4'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-005	Date Collected:	08.07.17 09.30	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6310**	98.6	mg/kg	08.18.17 19.48		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 15.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 15.17	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 15.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 15.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.14.17 15.17	
o-Terphenyl	84-15-1	97	%	70-135	08.14.17 15.17	

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-4'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-005	Date Collected:	08.07.17 09.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.15.17 20.33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.15.17 20.33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.15.17 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.15.17 20.33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.15.17 20.33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.15.17 20.33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.15.17 20.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	80-120	08.15.17 20.33	
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.15.17 20.33	

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-6'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-006	Date Collected:	08.07.17 09.45	Sample Depth:	6 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5320**	49.9	mg/kg	08.18.17 20.11		10

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-8'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-007	Date Collected:	08.07.17 09.45	Sample Depth:	8 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2650**	49.1	mg/kg	08.18.17 20.19		10

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-10'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-008	Date Collected:	08.07.17 09.45	Sample Depth:	10 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	24.9	mg/kg	08.18.17 20.26		5

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-12'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-009	Date Collected:	08.07.17 09.45	Sample Depth:	12 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1250**	24.6	mg/kg	08.18.17 20.34		5

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-14'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-010	Date Collected:	08.07.17 10.00	Sample Depth:	14 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**285**	4.99	mg/kg	08.18.17 20.57		1

Certificate of Analytical Results 560033

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T1-17'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-011	Date Collected:	08.07.17 10.00	Sample Depth:	17 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**210**	4.92	mg/kg	08.18.17 21.05		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 15.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 15.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 15.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 15.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.14.17 15.37	
o-Terphenyl	84-15-1	96	%	70-135	08.14.17 15.37	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T1-17'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-011	Date Collected:	08.07.17 10.00	Sample Depth:	17 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.15.17 20.52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.15.17 20.52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.15.17 20.52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.15.17 20.52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.15.17 20.52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.15.17 20.52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.15.17 20.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	80-120	08.15.17 20.52	
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.15.17 20.52	

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COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**T2-Surface**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-012	Date Collected:	08.07.17 10.15		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8150**	49.4	mg/kg	08.18.17 21.12		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**175**	15.0	mg/kg	08.14.17 15.58		1
Diesel Range Organics (DRO)	C10C28DRO	**622**	15.0	mg/kg	08.14.17 15.58		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**97.9**	15.0	mg/kg	08.14.17 15.58		1
Total TPH	PHC635	**895**	15.0	mg/kg	08.14.17 15.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.17 15.58	
o-Terphenyl	84-15-1	110	%	70-135	08.14.17 15.58	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-Surface**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-012	Date Collected:	08.07.17 10.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.17 21.10	U	1
Toluene	108-88-3	**0.298**	0.00200	mg/kg	08.15.17 21.10		1
Ethylbenzene	100-41-4	**0.289**	0.00200	mg/kg	08.15.17 21.10		1
m,p-Xylenes	179601-23-1	**0.253**	0.00399	mg/kg	08.15.17 21.10		1
o-Xylene	95-47-6	**0.202**	0.00200	mg/kg	08.15.17 21.10		1
Total Xylenes	1330-20-7	**0.455**	0.00200	mg/kg	08.15.17 21.10		1
Total BTEX		**1.04**	0.00200	mg/kg	08.15.17 21.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	80-120	08.15.17 21.10	
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.15.17 21.10	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-013	Date Collected:	08.07.17 10.15	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8450**	49.8	mg/kg	08.18.17 21.20		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**42.0**	15.0	mg/kg	08.14.17 16.18		1
Diesel Range Organics (DRO)	C10C28DRO	**227**	15.0	mg/kg	08.14.17 16.18		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 16.18	U	1
Total TPH	PHC635	**269**	15.0	mg/kg	08.14.17 16.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.14.17 16.18	
o-Terphenyl	84-15-1	104	%	70-135	08.14.17 16.18	

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Sample Id:	**T2-1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-013	Date Collected:	08.07.17 10.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.17 21.29	U	1
Toluene	108-88-3	**0.0121**	0.00199	mg/kg	08.15.17 21.29		1
Ethylbenzene	100-41-4	**0.0415**	0.00199	mg/kg	08.15.17 21.29		1
m,p-Xylenes	179601-23-1	**0.235**	0.00398	mg/kg	08.15.17 21.29		1
o-Xylene	95-47-6	**0.159**	0.00199	mg/kg	08.15.17 21.29		1
Total Xylenes	1330-20-7	**0.394**	0.00199	mg/kg	08.15.17 21.29		1
Total BTEX		**0.448**	0.00199	mg/kg	08.15.17 21.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	80-120	08.15.17 21.29	
4-Bromofluorobenzene	460-00-4	115	%	80-120	08.15.17 21.29	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-2'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-014	Date Collected:	08.07.17 10.15	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9740**	99.6	mg/kg	08.18.17 21.28		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 16.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	**32.2**	15.0	mg/kg	08.14.17 16.38		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 16.38	U	1
Total TPH	PHC635	**32.2**	15.0	mg/kg	08.14.17 16.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.14.17 16.38	
o-Terphenyl	84-15-1	96	%	70-135	08.14.17 16.38	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-2'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-014	Date Collected:	08.07.17 10.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.17 21.48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.17 21.48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.17 21.48	U	1
m,p-Xylenes	179601-23-1	**0.0121**	0.00399	mg/kg	08.15.17 21.48		1
o-Xylene	95-47-6	**0.00565**	0.00200	mg/kg	08.15.17 21.48		1
Total Xylenes	1330-20-7	**0.0178**	0.00200	mg/kg	08.15.17 21.48		1
Total BTEX		**0.0178**	0.00200	mg/kg	08.15.17 21.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	80-120	08.15.17 21.48	
4-Bromofluorobenzene	460-00-4	92	%	80-120	08.15.17 21.48	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-3'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-015	Date Collected:	08.07.17 10.15	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9750**	99.4	mg/kg	08.18.17 21.36		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 16.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 16.59	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 16.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 16.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.14.17 16.59	
o-Terphenyl	84-15-1	95	%	70-135	08.14.17 16.59	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-3'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-015	Date Collected:	08.07.17 10.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.15.17 22.07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.15.17 22.07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.15.17 22.07	U	1
m,p-Xylenes	179601-23-1	**0.00403**	0.00402	mg/kg	08.15.17 22.07		1
o-Xylene	95-47-6	**0.00377**	0.00201	mg/kg	08.15.17 22.07		1
Total Xylenes	1330-20-7	**0.00780**	0.00201	mg/kg	08.15.17 22.07		1
Total BTEX		**0.00780**	0.00201	mg/kg	08.15.17 22.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	80-120	08.15.17 22.07	
1,4-Difluorobenzene	540-36-3	92	%	80-120	08.15.17 22.07	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-4'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-016	Date Collected:	08.07.17 10.15	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4370**	49.7	mg/kg	08.18.17 21.59		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.14.17 18.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.14.17 18.01	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.14.17 18.01	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.14.17 18.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.14.17 18.01	
o-Terphenyl	84-15-1	95	%	70-135	08.14.17 18.01	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-4'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-016	Date Collected:	08.07.17 10.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.15.17 22.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.15.17 22.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.15.17 22.26	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.15.17 22.26	U	1
o-Xylene	95-47-6	**0.00323**	0.00202	mg/kg	08.15.17 22.26		1
Total Xylenes	1330-20-7	**0.00323**	0.00202	mg/kg	08.15.17 22.26		1
Total BTEX		**0.00323**	0.00202	mg/kg	08.15.17 22.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	80-120	08.15.17 22.26	
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.15.17 22.26	

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-6'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-017	Date Collected:	08.07.17 10.15	Sample Depth:	6 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1420**	24.9	mg/kg	08.18.17 22.06		5

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-8'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-018	Date Collected:	08.07.17 10.15	Sample Depth:	8 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**470**	24.8	mg/kg	08.18.17 22.29		5

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-10'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-019	Date Collected:	08.07.17 10.30	Sample Depth:	10 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**349**	25.0	mg/kg	08.18.17 22.37		5

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-12'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-020	Date Collected:	08.07.17 10.30	Sample Depth:	12 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**159**	4.94	mg/kg	08.18.17 22.45		1

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Sample Id:	**T2-14'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-021	Date Collected:	08.07.17 10.30	Sample Depth:	14 ft
Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**280**	24.6	mg/kg	08.18.17 22.52		5

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COG Operating LLC, Artesia, NM

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Sample Id:	**T2-15'-16'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-022	Date Collected:	08.07.17 10.30	Sample Depth:	15 - 16 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.18.17 17.00	Basis:	Wet Weight
Seq Number:	3025521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**359**	24.7	mg/kg	08.18.17 23.00		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 18.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 18.21	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 18.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 18.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.17 18.21	
o-Terphenyl	84-15-1	96	%	70-135	08.14.17 18.21	

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SRO State Com #018H

Sample Id:	**T2-15'-16'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560033-022	Date Collected:	08.07.17 10.30	Sample Depth:	15 - 16 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.15.17 11.00	Basis:	Wet Weight
Seq Number:	3025341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.17 22.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.17 22.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.17 22.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.15.17 22.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.17 22.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.17 22.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.17 22.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.15.17 22.44	
4-Bromofluorobenzene	460-00-4	92	%	80-120	08.15.17 22.44	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 560033

COG Operating LLC

SRO State Com #018H

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025521 — Matrix: Solid — Date Prep: 08.18.17
MB Sample Id: 729641-1-BLK — LCS Sample Id: 729641-1-BKS — LCSD Sample Id: 729641-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.90	245	253	103	248	100	90-110	2	20	mg/kg	08.18.17 19:33	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025634 — Matrix: Solid — Date Prep: 08.21.17
MB Sample Id: 729569-1-BLK — LCS Sample Id: 729569-1-BKS — LCSD Sample Id: 729569-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.98	249	257	103	252	101	90-110	2	20	mg/kg	08.21.17 19:18	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025521 — Matrix: Soil — Date Prep: 08.18.17
Parent Sample Id: 560033-005 — MS Sample Id: 560033-005 S — MSD Sample Id: 560033-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6310	4930	11200	99	11200	99	90-110	0	20	mg/kg	08.18.17 19:56	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025521 — Matrix: Soil — Date Prep: 08.18.17
Parent Sample Id: 560033-015 — MS Sample Id: 560033-015 S — MSD Sample Id: 560033-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9750	4970	14700	100	14800	102	90-110	1	20	mg/kg	08.18.17 21:43	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025634 — Matrix: Soil — Date Prep: 08.21.17
Parent Sample Id: 560037-001 — MS Sample Id: 560037-001 S — MSD Sample Id: 560037-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.95	248	267	108	265	107	90-110	1	20	mg/kg	08.21.17 19:41	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025634 — Matrix: Soil — Date Prep: 08.21.17
Parent Sample Id: 560038-007 — MS Sample Id: 560038-007 S — MSD Sample Id: 560038-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	615	248	811	79	833	88	90-110	3	20	mg/kg	08.21.17 21:28	X

QC Summary 560033

COG Operating LLC

SRO State Com #018H

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3025050 — Matrix: Solid — Date Prep: 08.14.17
MB Sample Id: 729376-1-BLK — LCS Sample Id: 729376-1-BKS — LCSD Sample Id: 729376-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	949	95	988	99	70-135	4	35	mg/kg	08.14.17 12:34	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1060	106	70-135	3	35	mg/kg	08.14.17 12:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		117		115		70-135	%	08.14.17 12:34
o-Terphenyl	122		113		109		70-135	%	08.14.17 12:34

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3025050 — Matrix: Soil — Date Prep: 08.14.17
Parent Sample Id: 560033-001 — MS Sample Id: 560033-001 S — MSD Sample Id: 560033-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	845	85	921	92	70-135	9	35	mg/kg	08.14.17 13:35	
Diesel Range Organics (DRO)	1250	999	1150	0	1230	0	70-135	7	35	mg/kg	08.14.17 13:35	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		110		70-135	%	08.14.17 13:35
o-Terphenyl	119		124		70-135	%	08.14.17 13:35

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3025341 — Matrix: Solid — Date Prep: 08.15.17
MB Sample Id: 729488-1-BLK — LCS Sample Id: 729488-1-BKS — LCSD Sample Id: 729488-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.117	117	0.111	112	70-130	5	35	mg/kg	08.15.17 18:40	
Toluene	<0.00200	0.0998	0.117	117	0.110	111	70-130	6	35	mg/kg	08.15.17 18:40	
Ethylbenzene	<0.00200	0.0998	0.120	120	0.110	111	71-129	9	35	mg/kg	08.15.17 18:40	
m,p-Xylenes	<0.00399	0.200	0.234	117	0.214	108	70-135	9	35	mg/kg	08.15.17 18:40	
o-Xylene	<0.00200	0.0998	0.115	115	0.105	106	71-133	9	35	mg/kg	08.15.17 18:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		95		98		80-120	%	08.15.17 18:40
4-Bromofluorobenzene	81		95		91		80-120	%	08.15.17 18:40

QC Summary 560033

COG Operating LLC

SRO State Com #018H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3025341 Matrix: Soil Date Prep: 08.15.17

Parent Sample Id: 560033-005 MS Sample Id: 560033-005 S MSD Sample Id: 560033-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0877	88	0.0839	83	70-130	4	35	mg/kg	08.15.17 19:18	
Toluene	<0.00201	0.100	0.0871	87	0.0827	82	70-130	5	35	mg/kg	08.15.17 19:18	
Ethylbenzene	<0.00201	0.100	0.0860	86	0.0824	82	71-129	4	35	mg/kg	08.15.17 19:18	
m,p-Xylenes	<0.00402	0.201	0.168	84	0.161	80	70-135	4	35	mg/kg	08.15.17 19:18	
o-Xylene	<0.00201	0.100	0.0833	83	0.0804	80	71-133	4	35	mg/kg	08.15.17 19:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		98		80-120	%	08.15.17 19:18
4-Bromofluorobenzene	115		120		80-120	%	08.15.17 19:18

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Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 3

Xenco Quote #

Xenco Job # 560033

Client / Reporting Information

Company Name / Branch: COG Operating LLC
Company Address: 2407 PECOS Avenue Artesia NM 88210
Email: alieb@concho.com dneel2@concho.com rhaskell@concho.com
Phone No: 575-748-1553
Project Contact: Aaron Lieb
Samplers's Name- Aaron Lieb

Project Information

Project Name/Number: SRO State Com #018H
Project Location: SRO State Com #0
Invoice To: COG Operating LLC
Attn: Robert Mcneill
600 W. Illinois
Midland TX 79701
PO Number:

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH/ EXTENDED	BTEX	Chloride	Field Comments
1	T1- Surface	—	8-7-17	9:30am	S	1									X	X	X	
2	T1- 1'	1				1									X	X	X	
3	T1- 2'	2				1									X	X	X	
4	T1- 3'	3				1									X	X	X	
5	T1- 4'	4				1									X	X	X	
6	T1- 6'	6		9:45am		1											X	
7	T1- 8'	8				1											X	
8	T1- 10'	10				1											X	
9	T1- 12'	12				1											X	
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8-11-17 10:00 Am	Sid Butler 8-11-17 10A	Sid Butler	8-11-17 1145 A	
2						
3	Relinquished by: ARCESIO MONTOYA	Date Time: 8-12-17 14:20	Received By:	Relinquished By:	Date Time:	Rec
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	

Temp: 3.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.6

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San Antonio, Texas (210-509-3334)
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Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 2 Of 3

Xenco Quote # | Xenco Job # 560033

Client / Reporting Information

Company Name / Branch: COG Operating LLC
Company Address: 2407 PECOS Avenue Artesia NM 88210
Email: alieb@concho.com dneel2@concho.com rhaskell@concho.com
Phone No: 575-748-1553
Project Contact: Aaron Lieb
Samplers's Name- Aaron Lieb

Project Information

Project Name/Number: SRO State Com #018H
Project Location: SRO State Com #0
Invoice To: COG Operating LLC, Attn: Robert Mcneill, 600 W. Illinois, Midland TX 79701
PO Number:

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Analytical Information: TPH/ EXTENDED	BTEX	Chloride	Field Comments
1	T1 - 14'	14	8-7-17	9:00AM	S	1											X	
2	T1 - 17'	17		1		1									X	X	X	
3																		
4	T2 - SURFACE			10:15AM		1									X	X	X	
5	T2 - 1'					1									X	X	X	
6	T2 - 2'					1									X	X	X	
7	T2 - 3'					1									X	X	X	
8	T2 - 4'					1									X	X	X	
9	T2 - 6'					1											X	
10	T2 - 8'					1											X	

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- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

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	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Rece
1		8-11-17 10:00 AM	1	2	8-11-17 1145	2
3	Relinquished by: ARCESIO MONTOYA	Date Time: 8-12-17 14:20	Received By: 3	Relinquished By: 4	Date Time:	Rec 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	

Temp: 3.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.6

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Phoenix, Arizona (480-355-0900)

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CHAIN OF CUSTODY

Page 3 Of 3

Xenco Quote #

Xenco Job # 560033

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Company Name / Branch: COG Operating LLC

Company Address: 2407 PECOS Avenue Artesia NM 88210

Email: alieb@concho.com dneel2@concho.com rhaskell@concho.com

Phone No: 575-748-1553

Project Contact: Aaron Lieb

Samplers's Name- Aaron Lieb

Project Information

Project Name/Number: SRO State Com #018H

Project Location: SRO State Com #0

Invoice To: COG Operating LLC
Attn: Robert Mcneill
600 W. Illinois
Midland TX 79701

PO Number:

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WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH/ EXTENDED	BTEX	Chloride	Field Comments
1	T2 - 10'	10	8-7-17	10:30AM	S	1											X	
2	T2 - 12'	12	"	"	"	1											X	
3	T2 - 14'	14	"	"	"	1											X	
4	T2 - 15'-6"	15'-6"	"	"	"	1									X	X	X	
5																		
6																		
7																		
8																		
9																		
10																		

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- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

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	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8-11-17 10:00	1 Sid Butler 8-11-17 10:1	2 Sid Butler	8-11-17 - 1	
3	ARCESIO MONTOYA	8-12-17 14:20	3	4		Temp: 3.9 IR ID:R-8
5			5	Custody Seal #	Preserved where applicabl	CF:(0-6: -0.2°C) (6-23: +0.2°C) Corrected Temp: 3.6

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 08/11/2017 11:45:00 AM

Work Order #: 560033

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**N/A**
#21 VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Jessica Kramer Date: 08/14/2017
Jessica Kramer

Checklist reviewed by: Kelsey Brooks Date: 08/14/2017
Kelsey Brooks

Certificate of Analysis Summary 560034

COG Operating LLC, Artesia, NM

Project Name: SRO State Com #018H

Project Id:

Contact: Aaron Lieb

Project Location: SRO State Com #018H

Date Received in Lab: Fri Aug-11-17 11:45 am

Report Date: 22-AUG-17

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560034-001		560034-002		560034-003		560034-004		560034-005		560034-006	
	Field Id:	North- Surf		North- 1'		South- Surf		South- 1'		East-Surf		East- 1'	
	Depth:			1- ft				1- ft				1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-07-17 11:30		Aug-07-17 11:30		Aug-07-17 11:30		Aug-07-17 11:30		Aug-07-17 11:30		Aug-07-17 11:30	
BTEX by EPA 8021B	***Extracted:***	Aug-18-17 16:40		Aug-18-17 16:40		Aug-18-17 16:40		Aug-18-17 16:40		Aug-18-17 16:40		Aug-18-17 16:40	
	Analyzed:	Aug-18-17 23:02		Aug-18-17 22:43		Aug-18-17 23:21		Aug-18-17 23:39		Aug-18-17 23:58		Aug-19-17 00:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.0167	0.00202	0.0185	0.00200	0.00409	0.00200	0.0112	0.00199	<0.00201	0.00201	0.00269	0.00199
Toluene		0.00324	0.00202	0.0298	0.00200	<0.00200	0.00200	0.0210	0.00199	<0.00201	0.00201	0.00558	0.00199
Ethylbenzene		<0.00202	0.00202	0.00460	0.00200	<0.00200	0.00200	0.00284	0.00199	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		0.00707	0.00404	0.0107	0.00401	<0.00399	0.00399	0.00736	0.00398	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		0.00374	0.00202	0.00380	0.00200	0.00251	0.00200	0.00459	0.00199	0.00254	0.00201	<0.00199	0.00199
Total Xylenes		0.0108	0.00202	0.0145	0.00200	0.00251	0.00200	0.0120	0.00199	0.00254	0.00201	<0.00199	0.00199
Total BTEX		0.0308	0.00202	0.0674	0.00200	0.00660	0.00200	0.0470	0.00199	0.00254	0.00201	0.00827	0.00199
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-21-17 17:00		Aug-21-17 17:00		Aug-21-17 17:00		Aug-21-17 17:00		Aug-21-17 17:00		Aug-21-17 17:00	
	Analyzed:	Aug-21-17 23:46		Aug-22-17 00:09		Aug-22-17 00:17		Aug-22-17 00:25		Aug-22-17 00:32		Aug-22-17 00:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		9.36	4.98	27.0	4.94	<5.00	5.00	17.0	4.95	<4.94	4.94	<4.97	4.97
TPH By SW8015 Mod	***Extracted:***	Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00		Aug-14-17 11:00	
	Analyzed:	Aug-14-17 18:41		Aug-14-17 19:01		Aug-14-17 19:21		Aug-14-17 19:40		Aug-14-17 20:00		Aug-14-17 20:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 560034

COG Operating LLC, Artesia, NM

Project Name: SRO State Com #018H

Project Id:

Contact: Aaron Lieb

Project Location: SRO State Com #018H

Date Received in Lab: Fri Aug-11-17 11:45 am

Report Date: 22-AUG-17

Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	560034-007		560034-008					
	Field Id:	West- Surf		West- 1'					
	Depth:			1- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Aug-07-17 11:30		Aug-07-17 11:30					
BTEX by EPA 8021B	***Extracted:***	Aug-21-17 09:40		Aug-18-17 16:40					
	Analyzed:	Aug-21-17 15:53		Aug-19-17 00:53					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00337	0.00337	0.00864	0.00202				
Toluene		<0.00337	0.00337	0.0132	0.00202				
Ethylbenzene		<0.00337	0.00337	<0.00202	0.00202				
m,p-Xylenes		<0.00673	0.00673	0.00450	0.00403				
o-Xylene		<0.00337	0.00337	0.00421	0.00202				
Total Xylenes		<0.00337	0.00337	0.00871	0.00202				
Total BTEX		<0.00337	0.00337	0.0306	0.00202				
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-21-17 17:00		Aug-21-17 17:00					
	Analyzed:	Aug-22-17 01:03		Aug-22-17 01:11					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<4.95	4.95	<4.94	4.94				
TPH By SW8015 Mod	***Extracted:***	Aug-14-17 11:00		Aug-14-17 11:00					
	Analyzed:	Aug-14-17 20:40		Aug-14-17 21:00					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0				
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Analytical Report 560034

for

COG Operating LLC

Project Manager: Aaron Lieb

SRO State Com #018H

22-AUG-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

22-AUG-17

Project Manager: **Aaron Lieb**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **560034**
SRO State Com #018H
Project Address: SRO State Com #018H

Aaron Lieb:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 560034. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 560034 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North- Surf	S	08-07-17 11:30		560034-001
North- 1'	S	08-07-17 11:30	1 ft	560034-002
South- Surf	S	08-07-17 11:30		560034-003
South- 1'	S	08-07-17 11:30	1 ft	560034-004
East-Surf	S	08-07-17 11:30		560034-005
East- 1'	S	08-07-17 11:30	1 ft	560034-006
West- Surf	S	08-07-17 11:30		560034-007
West- 1'	S	08-07-17 11:30	1 ft	560034-008

CASE NARRATIVE

Client Name: COG Operating LLC
Project Name: SRO State Com #018H

Project ID:
Work Order Number(s): *560034*

Report Date: *22-AUG-17*
Date Received: *08/11/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3025509 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 560034-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 560034-001, -002, -003, -004, -005, -006, -008.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3025537 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**North- Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-001	Date Collected:	08.07.17 11.30		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.36**	4.98	mg/kg	08.21.17 23.46		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.14.17 18.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.14.17 18.41	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.14.17 18.41	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.14.17 18.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.14.17 18.41	
o-Terphenyl	84-15-1	94	%	70-135	08.14.17 18.41	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**North- Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-001	Date Collected:	08.07.17 11.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.18.17 16.40	Basis:	Wet Weight
Seq Number:	3025509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0167**	0.00202	mg/kg	08.18.17 23.02		1
Toluene	108-88-3	**0.00324**	0.00202	mg/kg	08.18.17 23.02		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.18.17 23.02	U	1
m,p-Xylenes	179601-23-1	**0.00707**	0.00404	mg/kg	08.18.17 23.02		1
o-Xylene	95-47-6	**0.00374**	0.00202	mg/kg	08.18.17 23.02		1
Total Xylenes	1330-20-7	**0.0108**	0.00202	mg/kg	08.18.17 23.02		1
Total BTEX		**0.0308**	0.00202	mg/kg	08.18.17 23.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	08.18.17 23.02	
4-Bromofluorobenzene	460-00-4	85	%	80-120	08.18.17 23.02	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**North- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-002	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.0**	4.94	mg/kg	08.22.17 00.09		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 19.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 19.01	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 19.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 19.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.14.17 19.01	
o-Terphenyl	84-15-1	93	%	70-135	08.14.17 19.01	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**North- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-002	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.18.17 16.40	Basis:	Wet Weight
Seq Number:	3025509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0185**	0.00200	mg/kg	08.18.17 22.43		1
Toluene	108-88-3	**0.0298**	0.00200	mg/kg	08.18.17 22.43		1
Ethylbenzene	100-41-4	**0.00460**	0.00200	mg/kg	08.18.17 22.43		1
m,p-Xylenes	179601-23-1	**0.0107**	0.00401	mg/kg	08.18.17 22.43		1
o-Xylene	95-47-6	**0.00380**	0.00200	mg/kg	08.18.17 22.43		1
Total Xylenes	1330-20-7	**0.0145**	0.00200	mg/kg	08.18.17 22.43		1
Total BTEX		**0.0674**	0.00200	mg/kg	08.18.17 22.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	80-120	08.18.17 22.43	
4-Bromofluorobenzene	460-00-4	82	%	80-120	08.18.17 22.43	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**South- Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-003	Date Collected:	08.07.17 11.30		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	08.22.17 00.17	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 19.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 19.21	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 19.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 19.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.17 19.21	
o-Terphenyl	84-15-1	96	%	70-135	08.14.17 19.21	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**South- Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-003	Date Collected:	08.07.17 11.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.18.17 16.40	Basis:	Wet Weight
Seq Number:	3025509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00409**	0.00200	mg/kg	08.18.17 23.21		1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.17 23.21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.17 23.21	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.18.17 23.21	U	1
o-Xylene	95-47-6	**0.00251**	0.00200	mg/kg	08.18.17 23.21		1
Total Xylenes	1330-20-7	**0.00251**	0.00200	mg/kg	08.18.17 23.21		1
Total BTEX		**0.00660**	0.00200	mg/kg	08.18.17 23.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	80-120	08.18.17 23.21	
1,4-Difluorobenzene	540-36-3	108	%	80-120	08.18.17 23.21	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**South- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-004	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.0**	4.95	mg/kg	08.22.17 00.25		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 19.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 19.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 19.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 19.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.17 19.40	
o-Terphenyl	84-15-1	97	%	70-135	08.14.17 19.40	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**South- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-004	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.18.17 16.40	Basis:	Wet Weight
Seq Number:	3025509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0112**	0.00199	mg/kg	08.18.17 23.39		1
Toluene	108-88-3	**0.0210**	0.00199	mg/kg	08.18.17 23.39		1
Ethylbenzene	100-41-4	**0.00284**	0.00199	mg/kg	08.18.17 23.39		1
m,p-Xylenes	179601-23-1	**0.00736**	0.00398	mg/kg	08.18.17 23.39		1
o-Xylene	95-47-6	**0.00459**	0.00199	mg/kg	08.18.17 23.39		1
Total Xylenes	1330-20-7	**0.0120**	0.00199	mg/kg	08.18.17 23.39		1
Total BTEX		**0.0470**	0.00199	mg/kg	08.18.17 23.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.18.17 23.39	
4-Bromofluorobenzene	460-00-4	82	%	80-120	08.18.17 23.39	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**East-Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-005	Date Collected:	08.07.17 11.30		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.94	4.94	mg/kg	08.22.17 00.32	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 20.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 20.00	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 20.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 20.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.17 20.00	
o-Terphenyl	84-15-1	97	%	70-135	08.14.17 20.00	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**East-Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-005	Date Collected:	08.07.17 11.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.18.17 16.40	Basis:	Wet Weight
Seq Number:	3025509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.18.17 23.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.18.17 23.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.18.17 23.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.18.17 23.58	U	1
o-Xylene	95-47-6	**0.00254**	0.00201	mg/kg	08.18.17 23.58		1
Total Xylenes	1330-20-7	**0.00254**	0.00201	mg/kg	08.18.17 23.58		1
Total BTEX		**0.00254**	0.00201	mg/kg	08.18.17 23.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	80-120	08.18.17 23.58	
1,4-Difluorobenzene	540-36-3	104	%	80-120	08.18.17 23.58	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**East- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-006	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	08.22.17 00.55	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 20.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 20.20	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 20.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 20.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.14.17 20.20	
o-Terphenyl	84-15-1	95	%	70-135	08.14.17 20.20	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**East- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-006	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.18.17 16.40	Basis:	Wet Weight
Seq Number:	3025509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00269**	0.00199	mg/kg	08.19.17 00.17		1
Toluene	108-88-3	**0.00558**	0.00199	mg/kg	08.19.17 00.17		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.19.17 00.17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.19.17 00.17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.19.17 00.17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.19.17 00.17	U	1
Total BTEX		**0.00827**	0.00199	mg/kg	08.19.17 00.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	80-120	08.19.17 00.17	
4-Bromofluorobenzene	460-00-4	83	%	80-120	08.19.17 00.17	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**West- Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-007	Date Collected:	08.07.17 11.30		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	08.22.17 01.03	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 20.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 20.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 20.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 20.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.14.17 20.40	
o-Terphenyl	84-15-1	103	%	70-135	08.14.17 20.40	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**West- Surf**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-007	Date Collected:	08.07.17 11.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.21.17 09.40	Basis:	Wet Weight
Seq Number:	3025537				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00337	0.00337	mg/kg	08.21.17 15.53	U	1
Toluene	108-88-3	<0.00337	0.00337	mg/kg	08.21.17 15.53	U	1
Ethylbenzene	100-41-4	<0.00337	0.00337	mg/kg	08.21.17 15.53	U	1
m,p-Xylenes	179601-23-1	<0.00673	0.00673	mg/kg	08.21.17 15.53	U	1
o-Xylene	95-47-6	<0.00337	0.00337	mg/kg	08.21.17 15.53	U	1
Total Xylenes	1330-20-7	<0.00337	0.00337	mg/kg	08.21.17 15.53	U	1
Total BTEX		<0.00337	0.00337	mg/kg	08.21.17 15.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	80-120	08.21.17 15.53	
1,4-Difluorobenzene	540-36-3	90	%	80-120	08.21.17 15.53	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**West- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-008	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	MGO			% Moisture:	
Analyst:	MGO	Date Prep:	08.21.17 17.00	Basis:	Wet Weight
Seq Number:	3025638				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.94	4.94	mg/kg	08.22.17 01.11	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.17 11.00	Basis:	Wet Weight
Seq Number:	3025050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 21.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 21.00	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 21.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.14.17 21.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.14.17 21.00	
o-Terphenyl	84-15-1	94	%	70-135	08.14.17 21.00	

Certificate of Analytical Results 560034

COG Operating LLC, Artesia, NM

SRO State Com #018H

Sample Id:	**West- 1'**	Matrix:	Soil	Date Received:	08.11.17 11.45
Lab Sample Id:	560034-008	Date Collected:	08.07.17 11.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.18.17 16.40	Basis:	Wet Weight
Seq Number:	3025509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00864**	0.00202	mg/kg	08.19.17 00.53		1
Toluene	108-88-3	**0.0132**	0.00202	mg/kg	08.19.17 00.53		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.19.17 00.53	U	1
m,p-Xylenes	179601-23-1	**0.00450**	0.00403	mg/kg	08.19.17 00.53		1
o-Xylene	95-47-6	**0.00421**	0.00202	mg/kg	08.19.17 00.53		1
Total Xylenes	1330-20-7	**0.00871**	0.00202	mg/kg	08.19.17 00.53		1
Total BTEX		**0.0306**	0.00202	mg/kg	08.19.17 00.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.19.17 00.53	
4-Bromofluorobenzene	460-00-4	88	%	80-120	08.19.17 00.53	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 560034

COG Operating LLC

SRO State Com #018H

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025638 — Matrix: Solid — Date Prep: 08.21.17
MB Sample Id: 729712-1-BLK — LCS Sample Id: 729712-1-BKS — LCSD Sample Id: 729712-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	258	103	255	102	90-110	1	20	mg/kg	08.21.17 23:31	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025638 — Matrix: Soil — Date Prep: 08.21.17
Parent Sample Id: 560034-001 — MS Sample Id: 560034-001 S — MSD Sample Id: 560034-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.36	249	268	104	267	103	90-110	0	20	mg/kg	08.21.17 23:54	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3025638 — Matrix: Soil — Date Prep: 08.21.17
Parent Sample Id: 560035-003 — MS Sample Id: 560035-003 S — MSD Sample Id: 560035-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.98	249	268	108	263	106	90-110	2	20	mg/kg	08.22.17 01:42	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3025050 — Matrix: Solid — Date Prep: 08.14.17
MB Sample Id: 729376-1-BLK — LCS Sample Id: 729376-1-BKS — LCSD Sample Id: 729376-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	949	95	988	99	70-135	4	35	mg/kg	08.14.17 12:34	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1060	106	70-135	3	35	mg/kg	08.14.17 12:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		117		115		70-135	%	08.14.17 12:34
o-Terphenyl	122		113		109		70-135	%	08.14.17 12:34

QC Summary 560034

COG Operating LLC

SRO State Com #018H

Analytical Method: TPH By SW8015 Mod | Prep Method: TX1005P
Seq Number: 3025050 | Matrix: Soil | Date Prep: 08.14.17
Parent Sample Id: 560033-001 | MS Sample Id: 560033-001 S | MSD Sample Id: 560033-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	845	85	921	92	70-135	9	35	mg/kg	08.14.17 13:35	
Diesel Range Organics (DRO)	1250	999	1150	0	1230	0	70-135	7	35	mg/kg	08.14.17 13:35	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		110		70-135	%	08.14.17 13:35
o-Terphenyl	119		124		70-135	%	08.14.17 13:35

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3025509 | Matrix: Solid | Date Prep: 08.18.17
MB Sample Id: 729627-1-BLK | LCS Sample Id: 729627-1-BKS | LCSD Sample Id: 729627-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.123	122	0.115	115	70-130	7	35	mg/kg	08.18.17 20:51	
Toluene	<0.00202	0.101	0.122	121	0.113	113	70-130	8	35	mg/kg	08.18.17 20:51	
Ethylbenzene	<0.00202	0.101	0.124	123	0.115	115	71-129	8	35	mg/kg	08.18.17 20:51	
m,p-Xylenes	<0.00403	0.202	0.243	120	0.223	111	70-135	9	35	mg/kg	08.18.17 20:51	
o-Xylene	<0.00202	0.101	0.120	119	0.110	110	71-133	9	35	mg/kg	08.18.17 20:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		97		97		80-120	%	08.18.17 20:51
4-Bromofluorobenzene	87		90		89		80-120	%	08.18.17 20:51

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3025537 | Matrix: Solid | Date Prep: 08.21.17
MB Sample Id: 729681-1-BLK | LCS Sample Id: 729681-1-BKS | LCSD Sample Id: 729681-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.110	111	0.108	109	70-130	2	35	mg/kg	08.21.17 15:53	
Toluene	<0.00199	0.0994	0.122	123	0.118	119	70-130	3	35	mg/kg	08.21.17 15:53	
Ethylbenzene	<0.00199	0.0994	0.113	114	0.111	112	71-129	2	35	mg/kg	08.21.17 15:53	
m,p-Xylenes	<0.00398	0.199	0.228	115	0.226	114	70-135	1	35	mg/kg	08.21.17 15:53	
o-Xylene	<0.00199	0.0994	0.116	117	0.114	115	71-133	2	35	mg/kg	08.21.17 15:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		99		104		80-120	%	08.21.17 15:53
4-Bromofluorobenzene	113		108		114		80-120	%	08.21.17 15:53

QC Summary 560034

COG Operating LLC

SRO State Com #018H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3025509 Matrix: Soil Date Prep: 08.18.17

Parent Sample Id: 560034-002 MS Sample Id: 560034-002 S MSD Sample Id: 560034-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.0185	0.0992	0.0835	66	0.0729	54	70-130	14	35	mg/kg	08.18.17 21:29	X
Toluene	0.0298	0.0992	0.0822	53	0.0711	41	70-130	14	35	mg/kg	08.18.17 21:29	X
Ethylbenzene	0.00460	0.0992	0.0744	70	0.0658	61	71-129	12	35	mg/kg	08.18.17 21:29	X
m,p-Xylenes	0.0107	0.198	0.144	67	0.127	58	70-135	13	35	mg/kg	08.18.17 21:29	X
o-Xylene	0.00380	0.0992	0.0731	70	0.0653	62	71-133	11	35	mg/kg	08.18.17 21:29	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		102		80-120	%	08.18.17 21:29
4-Bromofluorobenzene	101		99		80-120	%	08.18.17 21:29

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3025537 Matrix: Soil Date Prep: 08.21.17

Parent Sample Id: 560611-008 MS Sample Id: 560611-008 S MSD Sample Id: 560611-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.105	104	0.108	107	70-130	3	35	mg/kg	08.21.17 15:53	
Toluene	<0.00201	0.101	0.111	110	0.114	113	70-130	3	35	mg/kg	08.21.17 15:53	
Ethylbenzene	<0.00201	0.101	0.100	99	0.110	109	71-129	10	35	mg/kg	08.21.17 15:53	
m,p-Xylenes	<0.00402	0.201	0.180	90	0.222	110	70-135	21	35	mg/kg	08.21.17 15:53	
o-Xylene	<0.00201	0.101	0.108	107	0.112	111	71-133	4	35	mg/kg	08.21.17 15:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		91		80-120	%	08.21.17 15:53
4-Bromofluorobenzene	106		103		80-120	%	08.21.17 15:53

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Xenco Job # 560034

Client / Reporting Information

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Project Contact: Aaron Lieb
Samplers's Name- Aaron Lieb

Project Information

Project Name/Number: SRO State Com #018H
Project Location: SRO State Com #0
Invoice To: COG Operating LLC
Attn: Robert Mcneill
600 W. Illinois
Midland TX 79701
PO Number:

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Analytical Information: TPH/ EXTENDED	BTEX	Chloride	Field Comments
1	North - Surface	—	8-7-17	11:30 AM	S	1									X	X	X	
2	North - 1'	1				1									X	X	X	
3	South - Surface	—				1									X	X	X	
4	South - 1'	1				1									X	X	X	
5	East - Surf	—				1									X	X	X	
6	East - 1'	1				1									X	X	X	
7	West - Surf	—				1									X	X	X	
8	West - 1'	1				1									X	X	X	
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8-11-17 10:00 AM	Sid Butler 8-11-17 10A	2 Sid Butler	8-11-17 1145	2
3	Relinquished by: ARCESIO MONTOYA	Date Time: 8-12-17 14:20	Received By: 3	Relinquished By: 4	Date Time:	Receive 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	

Temp: 3.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.6

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 08/11/2017 11:45:00 AM

Work Order #: 560034

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**N/A**
#21 VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Jessica Kramer Date: 08/14/2017
Jessica Kramer

Checklist reviewed by: Kelsey Brooks Date: 08/14/2017
Kelsey Brooks

CARDINAL Laboratories

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

December 21, 2023

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: SRO STATE COM #018H

Enclosed are the results of analyses for samples received by the laboratory on 12/18/23 17:01.

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

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 1 (0' - 1') (H236722-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.38	119	2.00	2.42	
Toluene*	<0.050	0.050	12/20/2023	ND	2.34	117	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.41	121	2.00	2.83	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.29	122	6.00	3.14	
Total BTEX	<0.300	0.300	12/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.6 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**11200**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	164	81.9	200	5.97	
DRO >C10-C28*	**17.2**	10.0	12/19/2023	ND	175	87.6	200	3.22	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *75.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 1 (2' - 3') (H236722-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.38	119	2.00	2.42	
Toluene*	<0.050	0.050	12/20/2023	ND	2.34	117	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.41	121	2.00	2.83	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.29	122	6.00	3.14	
Total BTEX	<0.300	0.300	12/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.2 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7280**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	206	103	200	3.37	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	201	100	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *77.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *73.3 %* *49.1-148*

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 1 (3' - 4') (H236722-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.38	119	2.00	2.42	
Toluene*	<0.050	0.050	12/20/2023	ND	2.34	117	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.41	121	2.00	2.83	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.29	122	6.00	3.14	
Total BTEX	<0.300	0.300	12/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.2 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3600**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	172	85.9	200	1.03	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	177	88.6	200	1.76	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *77.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *73.7 %* *49.1-148*

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 1 (4' - 5') (H236722-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.38	119	2.00	2.42	
Toluene*	<0.050	0.050	12/20/2023	ND	2.34	117	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.41	121	2.00	2.83	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.29	122	6.00	3.14	
Total BTEX	<0.300	0.300	12/20/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3680**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	172	85.9	200	1.03	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	177	88.6	200	1.76	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *86.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.3 %* *49.1-148*

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 2 (0' - 1') (H236722-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.38	119	2.00	2.42	
Toluene*	<0.050	0.050	12/20/2023	ND	2.34	117	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.41	121	2.00	2.83	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.29	122	6.00	3.14	
Total BTEX	<0.300	0.300	12/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.5 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2760**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	172	85.9	200	1.03	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	177	88.6	200	1.76	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *81.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *77.4 %* *49.1-148*

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 2 (2' - 3') (H236722-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.57	128	2.00	9.69	
Toluene*	<0.050	0.050	12/20/2023	ND	2.50	125	2.00	13.6	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.60	130	2.00	13.4	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.74	129	6.00	13.4	
Total BTEX	<0.300	0.300	12/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.4 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1360**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	172	85.9	200	1.03	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	177	88.6	200	1.76	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *85.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *80.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 2 (3' - 4') (H236722-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.57	128	2.00	9.69	
Toluene*	<0.050	0.050	12/20/2023	ND	2.50	125	2.00	13.6	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.60	130	2.00	13.4	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.74	129	6.00	13.4	
Total BTEX	<0.300	0.300	12/20/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1390**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	172	85.9	200	1.03	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	177	88.6	200	1.76	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *84.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *80.0 %* *49.1-148*

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: T - 23 - 2 (4' - 5') (H236722-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.57	128	2.00	9.69	
Toluene*	<0.050	0.050	12/20/2023	ND	2.50	125	2.00	13.6	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.60	130	2.00	13.4	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.74	129	6.00	13.4	
Total BTEX	<0.300	0.300	12/20/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**608**	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	172	85.9	200	1.03	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	177	88.6	200	1.76	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *85.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/18/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	SRO STATE COM #018H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02826	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: 23 - SOUTH (0' - 1') (H236722-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2023	ND	2.57	128	2.00	9.69	
Toluene*	<0.050	0.050	12/20/2023	ND	2.50	125	2.00	13.6	
Ethylbenzene*	<0.050	0.050	12/20/2023	ND	2.60	130	2.00	13.4	
Total Xylenes*	<0.150	0.150	12/20/2023	ND	7.74	129	6.00	13.4	
Total BTEX	<0.300	0.300	12/20/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/19/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2023	ND	172	85.9	200	1.03	
DRO >C10-C28*	<10.0	10.0	12/19/2023	ND	177	88.6	200	1.76	
EXT DRO >C28-C36	<10.0	10.0	12/19/2023	ND					

Surrogate: 1-Chlorooctane *64.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *62.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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

Company Name: ConocoPhillips
Project Manager: Christian Llull
Address:
City: State: Zip:
Phone #: Fax #:
Project #: 212C-MD-02826 Project Owner:
Project Name: SRO State Com #018H
Project Location: Eddy Co, NM
Sampler Name: Andrew Garcia

BILL TO
P.O. #:
Company: Tetra Tech
Attn: Christian Llull
Address:
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: 2023 DATE	TIME	TPH	BTEX	Chlorides
H236723																	
1	T-23-1 (0'-1')	G	1			X					X		18 Dec	0800	X	X	X
2	T-23-1 (2'-3')													0815			
3	T-23-1 (3'-4')													0830			
4	T-23-1 (4'-5')													0845			
5	T-23-2 (0'-1')													0900			
6	T-23-2 (2'-3')													0915			
7	T-23-2 (3'-4')													0930			
8	T-23-2 (4'-5')													0945			
9	23-South (0-1')													1000			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Andrew Garcia Date: 18 Dec 23 Time: 1701
Received By:
Relinquished By: Date: Time:
Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
christian-llull@tetratech.com
REMARKS:
Nicholas.Poole@tetratech.com

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 0.4°C
Corrected Temp. °C
Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No
CHECKED BY: (Initials) CO

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #140
Correction Factor 0°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

FORM-006 R 3.4 07/11/23

APPENDIX F
NMSLO Seed Mixture Details

Custom Soil Resource Report
Soil Map

Map Scale: 1:235 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 3 6 12 18

Feet: 0 10 20 40 60

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

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 19, Sep 7, 2023

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
RE	Reagan-Upton association, 0 to 9 percent slopes	0.1	100.0%
Totals for Area of Interest		**0.1**	**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: R042CY153NM - 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: R042CY159NM - Shallow Loamy
Hydric soil rating: No

Minor Components

Atoka

Percent of map unit: 3 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Pima

Percent of map unit: 2 percent
Ecological site: R070BC017NM - Bottomland
Hydric soil rating: No

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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

QUESTIONS

Action 311472

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 311472
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1719137895**
Incident Name	**NAB1719137895 SRO STATE COM #018H FL @ 30-015-39999**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Approved**
Incident Well	**[30-015-39999] SRO STATE COM #018H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	SRO STATE COM #018H FL
Date Release Discovered	07/04/2017
Surface Owner	State

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Corrosion | Flow Line - Production | Crude Oil | Released: 1 BBL | Recovered: 0 BBL | Lost: 1 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion | Flow Line - Production | Produced Water | Released: 30 BBL | Recovered: 5 BBL | Lost: 25 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 311472
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 02/05/2024

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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 311472
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 500 and 1000 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	12800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	1720
GRO+DRO (EPA SW-846 Method 8015M)	1250
BTEX (EPA SW-846 Method 8021B or 8260B)	1
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	06/26/2024
On what date will (or did) the final sampling or liner inspection occur	06/28/2024
On what date will (or was) the remediation complete(d)	07/10/2024
What is the estimated surface area (in square feet) that will be reclaimed	1955
What is the estimated volume (in cubic yards) that will be reclaimed	290
What is the estimated surface area (in square feet) that will be remediated	1955
What is the estimated volume (in cubic yards) that will be remediated	290
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 02/05/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

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

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QUESTIONS (continued)

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QUESTIONS

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

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

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CONDITIONS

Action 311472

CONDITIONS

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	Action Number: 311472
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Plan approved with a Condition of Approval: If impacted soil is to remain in place, written permission from the pipeline owner to leave in place until P&A activities must be included in all subsequently reports.	2/15/2024
amaxwell	Submit a report via the OCD permitting portal by June 19, 2024.	2/15/2024