ConocoPhillips

Ike Tavarez
ConocoPhillips
600 W. Illinois Avenue
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+1-432-701-8630

October 5, 2022

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

Subject: **Exxon 8 Federal #001 Release**
Unit Letter A, Section 8, Township 25 South, Range 29 East
Eddy County, New Mexico
Incident ID nAB1816358019
2RP-4802

Sir or Madam:

ConocoPhillips Company("COPC") entered into an Agreed Compliance Order ("ACO") with the New Mexico Oil Conservation Division ("NMOCD") on December 15, 2021, 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.

A Delineation Workplan for the subject line 2RP-4802 (ID nAB1816358019) release was previously submitted to the NMOCD by BBC International, Inc. via email in November 2018. The same Workplan was resubmitted to NMOCD via email in January 2019. The same Workplan was located and uploaded to the EMNRD CentreStack Portal as portion of the ACO list submittals. To date, the NMOCD has not approved nor rejected the Workplan as written and submitted. Upon additional review of this Workplan and the collected data, however, the remedial action proposed by BBC in the Workplan did not sufficiently address identified areas of impact at the incident site. Additionally, the BLM (surface landowner) is requesting the reclamation of the lease pad now that the well is plugged, and the incident remediation and closure must occur before reclamation.

Thus, enclosed is a copy of a revised Release Characterization and Remediation Work Plan for the subject line incident as prepared by Tetra Tech on behalf of COPC. The attached revised Work Plan will be submitted via the NMOCD Fee Application portal. An expedited review is requested.

If you have any questions, please contact me at 432-701-8630.

Sincerely,

Ike Tavarez, P.G.
Program Manager – RMR

cc: Site Files

Attachments: Release Characterization and Remediation Work Plan, Exxon 8 Federal #001 Release, 2RP-4802

TETRA TECH

October 5, 2022

District Supervisor
Oil Conservation Division, District 2
811 S. First St.
Artesia, New Mexico 88210

Re: Release Characterization and Remediation Work Plan
ConocoPhillips
Heritage Concho
Exxon 8 Federal #001 Release
Unit Letter A, Section 8, Township 25 South, Range 29 East
Eddy County, New Mexico
2RP-4802
Incident ID NAB1816358019

Dear Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (COPC) to assess a historical release that occurred from the Exxon 8 Federal #001 (API # 30-015-25894). The approximate release site coordinates are 32.1501236°, -104.0008392°, located in the Public Land Survey System (PLSS) Unit Letter A, Section 8, Township 25 South, Range 29 East, Eddy County, New Mexico (Site). The Site location is shown on Figures 1 and 2. The site is located on federal lands managed by the Bureau of Land Management (BLM).

BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report (Appendix A), the release was discovered on June 2, 2018. The release occurred due to the packing on the pumping well becoming over-pressurized and rupturing. Approximately 5 barrels (bbls) of oil and 940 bbls of produced water were released, of which 4 bbls of oil and 890 bbls of produced water were reported recovered. The NMOCD received the initial C-141 on June 7, 2018, and subsequently assigned the release the Remediation Permit (RP) number 2RP-4802 and the Incident ID NAB1816358019.

The Exxon 8 Federal #001 (1RP-4802/NAB1816358019) 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 BBC was included as a portion of the ACO.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, playa lakes, wetlands, incorporated municipal

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boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is within a New Mexico oil and gas production area.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are six (6) water wells within an 800-meter radius (approximately ½ mile) of the Site with an average depth to groundwater of 61 feet (ft) below ground surface (bgs). The site is in an area of medium karst potential. The site characterization data are shown in Appendix B.

REGULATORY FRAMEWORK

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

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

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

Additionally, in accordance with the NMOCD guidance *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* (September 6, 2019), the following reclamation requirements for surface soils (0-4 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

INITIAL ASSESSMENT AND WORK PLAN

According to information provided by COPC, BBC International, Incorporated (BBC) was initially contracted to map the extent and sample the release footprint and the surrounding area. Based upon the mapped initial extent provided by BBC, the release footprint was approximately 24,855 square feet of lease pad.

On September 6 and 7, 2018, BBC installed seven (7) borings (SP 1 through SP 7) within the release footprint to a maximum depth of 10 feet bgs. Additionally, four borings were completed (North, East, South, West) in the cardinal directions to establish horizontal delineation. A total of forty-nine (49) samples were collected from the sample locations and transferred under chain of custody to Cardinal Laboratories (Cardinal). All soil samples were analyzed for chloride via Method SM4500Cl-B. Selected samples were analyzed for TPH via Method 8015 Modified and BTEX via Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix C.

The data was evaluated and a Delineation Workplan was completed by BBC and submitted to NMOCD, on behalf of COG, via email in 2018. The same Workplan was resubmitted to NMOCD via email in January 2019. BBC was able to confirm horizontal delineation with their assessment activities, however, the remedial action proposed did not sufficiently address identified areas of impact. A copy of the BBC Delineation Workplan and associated email correspondence is included in Appendix D.

ADDITIONAL ASSESSMENT ACTIVITIES

On behalf of ConocoPhillips, Tetra Tech conducted a visual Site inspection in September 2021 to assess current Site conditions, document the observed impact, and photograph the area. Tetra Tech personnel

observed that the well had been plugged and abandoned, and that no obvious signs of staining and/or residual impact were observed on the pad site. Photographic documentation of the visual Site inspection is included in Appendix E.

Based on the findings of the visual inspection, additional soil sampling was conducted in the reported locations that BBC identified with concentrations exceeding the reclamation requirements for the Site. Tetra Tech personnel conducted soil sampling to achieve vertical delineation of the remaining release extent. Five (5) borings (SP-22-1, SP-22-2, SP-22-4, SP-22-5, and SP-22-6) were installed using a hand auger in order to verify the findings presented by BBC in the Delineation Workplan. The borings were installed within the release extent to depths ranging from 2 to 5 ft bgs to confirm vertical delineation. Figure 4 depicts the revised release extent and the 2022 soil boring locations.

A total of twelve (12) samples were collected from the five (5) borings and submitted to Cardinal to be analyzed for chlorides via EPA Method 4500.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix C.

SUMMARY OF SAMPLING RESULTS

Results from the September 2022 soil sampling event are summarized in Table 2. The analytical results associated with the boring locations SP-22-2 and SP-22-5 were below reclamation requirements for all constituents. The analytical results associated with interior boring locations SP-22-1, SP-22-4 and SP-22-6 exceeded the reclamation requirement for chloride (600 mg/kg) and/or TPH (100 mg/kg) in surface (0-4 ft bgs) soils. There were no samples with analytical results that exceeded the remediation requirements for BTEX (50 mg/kg).

Results of the additional assessment indicated that the release footprint provided by BBC no longer appears to be accurate to field. This discrepancy, given the age of the release, may be due to rain, sheet flow, natural attenuation and/or plugging and abandonment activities which have condensed the release footprint over time. The release extent reported by BBC is presented in Figure 3, and the release extent observed by Tetra Tech is presented in Figure 4.

REMEDIATION WORK PLAN

Prior to inception of remedial activities, a Request for Approval of the Remediation Work Plan will be sent via email to the Bureau of Land Management (BLM). Based on the analytical results from the assessment, impacted material within the release extent is proposed to be removed as indicated in Figure 5. Impacted soils will be excavated to a maximum depth of 4 feet below the surrounding surface or until a representative sample from the walls and bottom of the excavation is below the Site RRALs and/or reclamation requirements for soils above 4 feet. Heavy equipment (backhoe and trackhoe) 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. Impacted soils within the vicinity of the surface and subsurface lines will be dug by hand to the maximum extent practicable.

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 1,875 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. The proposed confirmation sample locations are depicted in Figure 6. Approximately eighteen (18) confirmation floor samples and twelve (12) confirmation sidewall samples are proposed for verification of remedial activities in the proposed excavation area. The proposed excavation encompasses an area of approximately 14,785 square feet. These

confirmation sidewall and floor samples will be representative of no more than approximately 500 square feet of excavated area. Confirmation samples will be sent to an accredited laboratory for analysis of TPH, BTEX, and chlorides. Once results are received, NMOCD will be notified, and the excavation will then be backfilled with clean material to surface grade.

SITE RECLAMATION AND RESTORATION PLAN

As the well is plugged, following completion of the proposed remedial activities and once the reclamation requirements are achieved in the upper four feet of soil, the caliche pad area will be reclaimed along with any areas disturbed by the remediation. The reclaimed areas will be seeded in the first favorable growing season to aid in revegetation. Based on the location of the Site, the seed mixture for LPC Sand/Shinnery Sites will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled. The proposed reclamation extent is depicted in Figure 7.

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

CONCLUSION

Remediation activities at the Site are proposed to begin within 90 days of NMOCD plan approval. Upon completion of the proposed work, a final closure report detailing the remediation activities and the results of the confirmation sampling will be submitted to NMOCD. The area shall be reclaimed in accordance with 19.15.29.13 NMAC and the BLM as the Site is no longer being used for oil and gas operations. The completed C-141 forms are enclosed in 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) 338-2861.

Sincerely,
Tetra Tech, Inc.

Christian M. Llull, P.G.
Project Manager

cc:
Mr. Ike Tavarez, RMR – ConocoPhillips

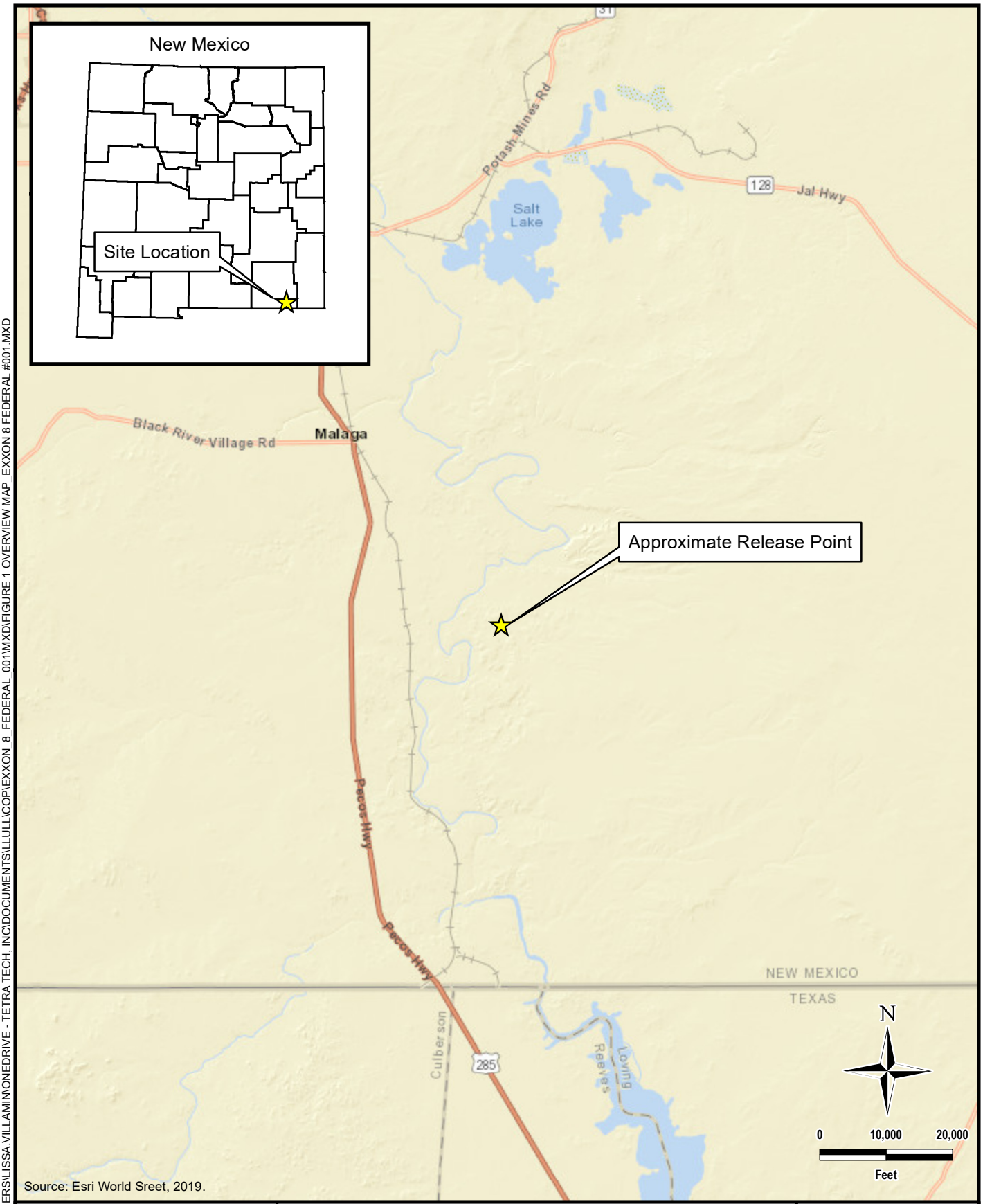
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



Source: Esri World Sreet, 2019.

DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\EXXON_8_FEDERAL_001\MXD\FIGURE 1 OVERVIEW MAP_EXXON 8 FEDERAL #001.MXD

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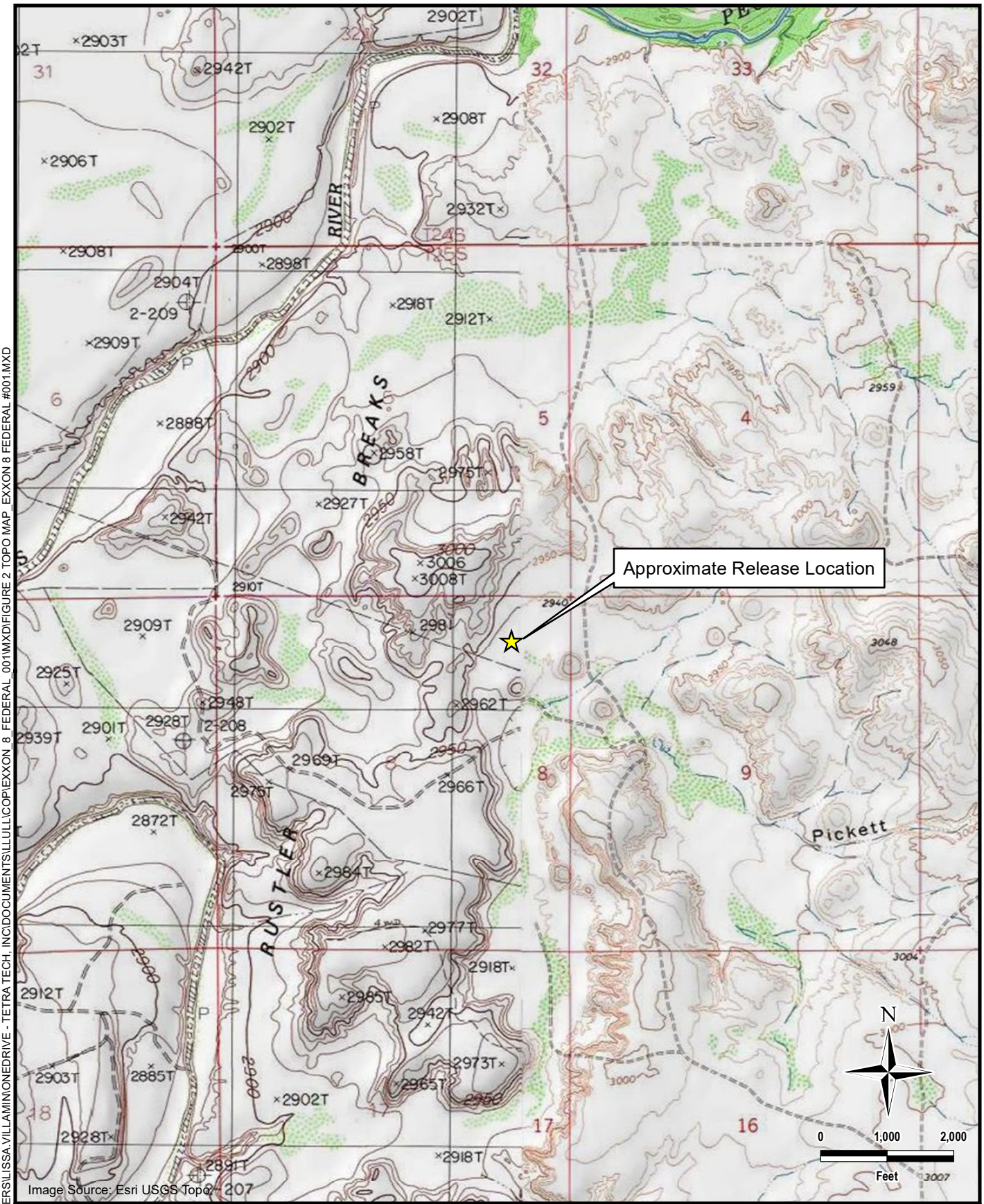
CONOCOPHILLIPS

NAB1816358019
(32.150120°, -104.000860°)
EDDY COUNTY, NEW MEXICO

EXXON 8 FEDERAL #001
OVERVIEW MAP

PROJECT NO.:	212C-MD-02832
DATE:	SEPTEMBER 14, 2022
DESIGNED BY:	LMV

Figure No.
1



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CONOCOPHILLIPS

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(32.150120°, -104.000860°)
EDDY COUNTY, NEW MEXICO

EXXON 8 FEDERAL #001
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02832
DATE:	SEPTEMBER 14, 2022
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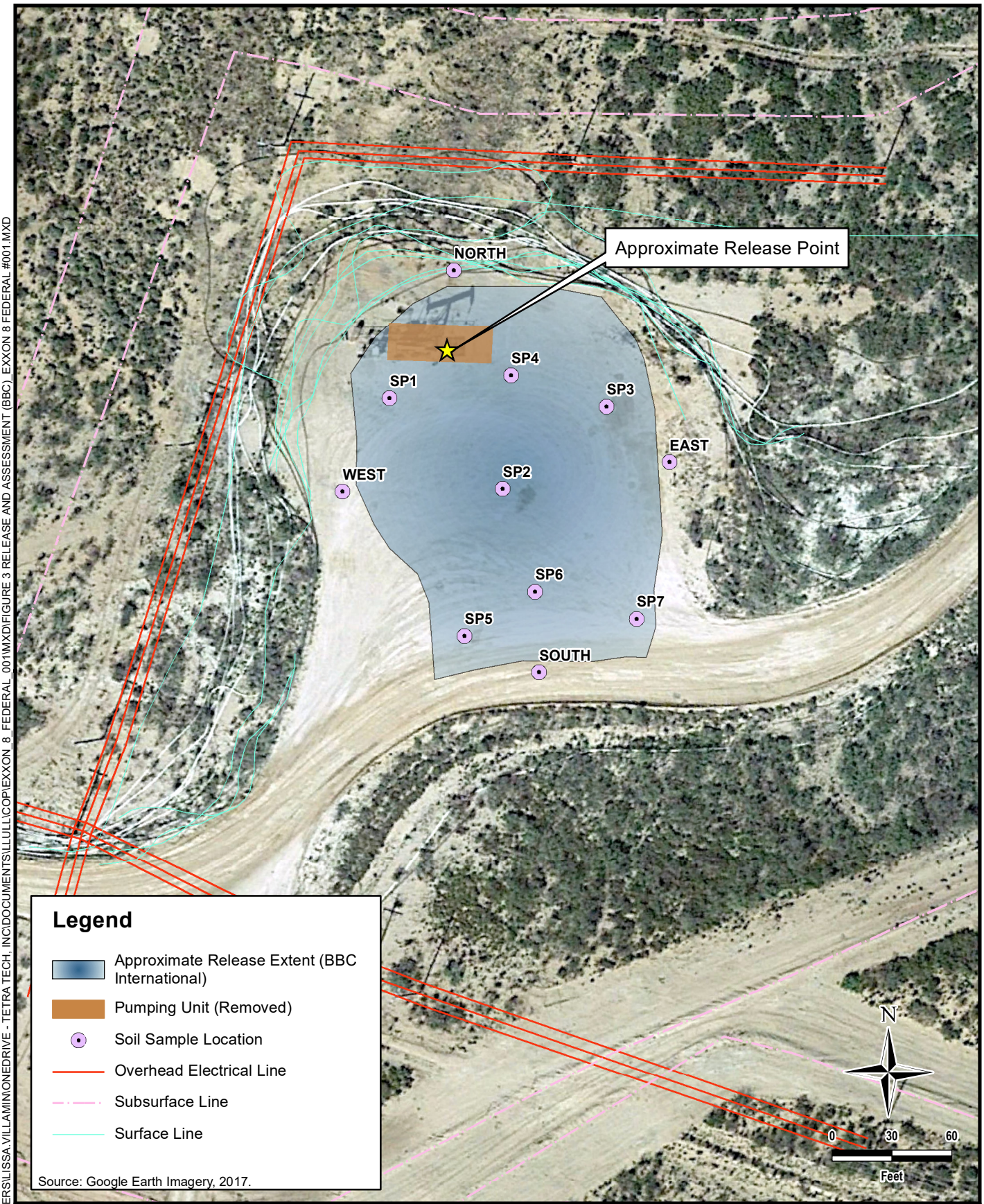
Figure No.
2



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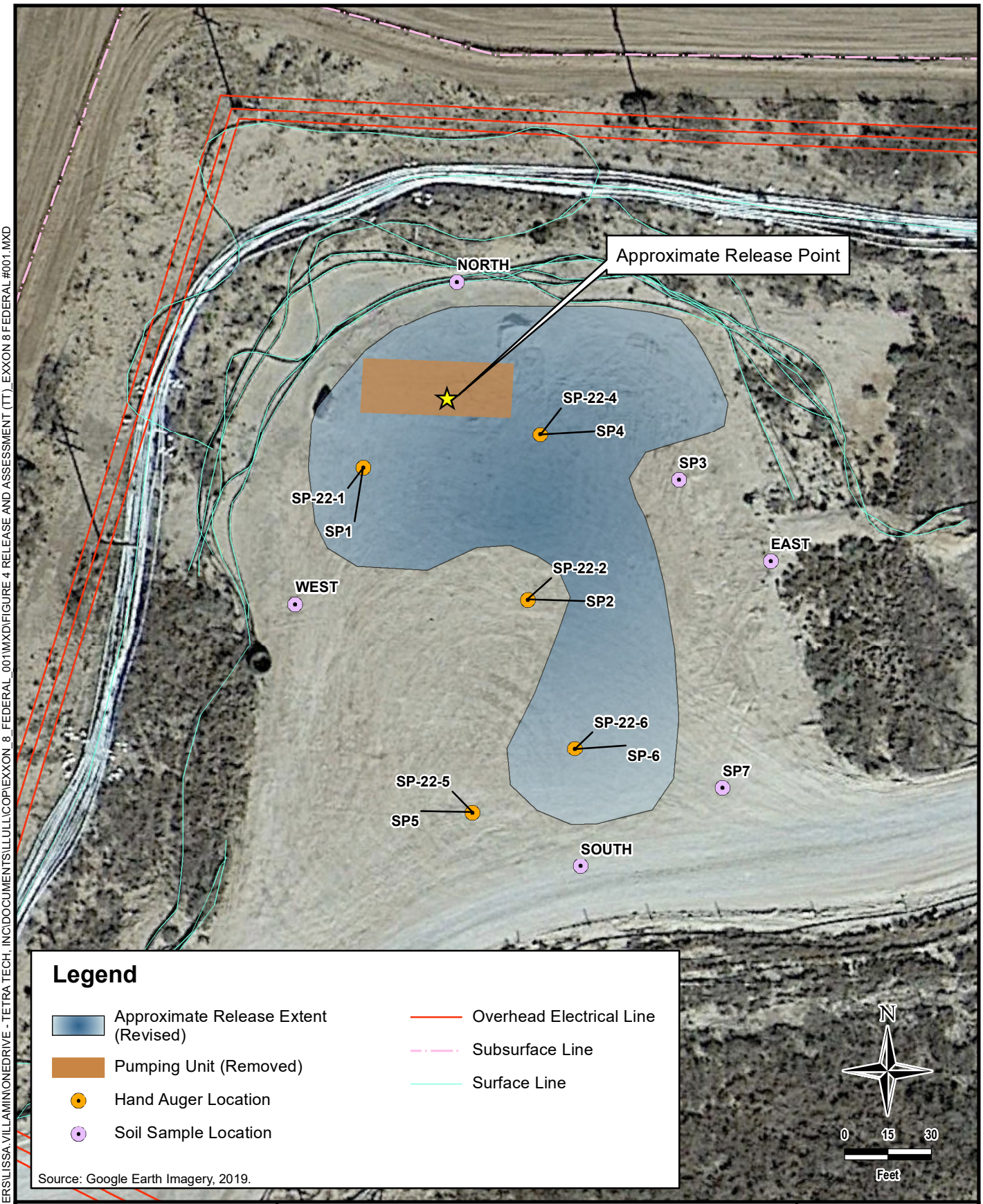
NAB1816358019
(32.150120°, -104.000860°)
EDDY COUNTY, NEW MEXICO

EXXON 8 FEDERAL #001
APPROXIMATE RELEASE EXTENT AND SITE ASSESSMENT
(BBC INTERNATIONAL)

PROJECT NO.:	212C-MD-02832
DATE:	SEPTEMBER 20, 2022
DESIGNED BY:	LMV

Figure No.
3



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CONOCOPHILLIPS

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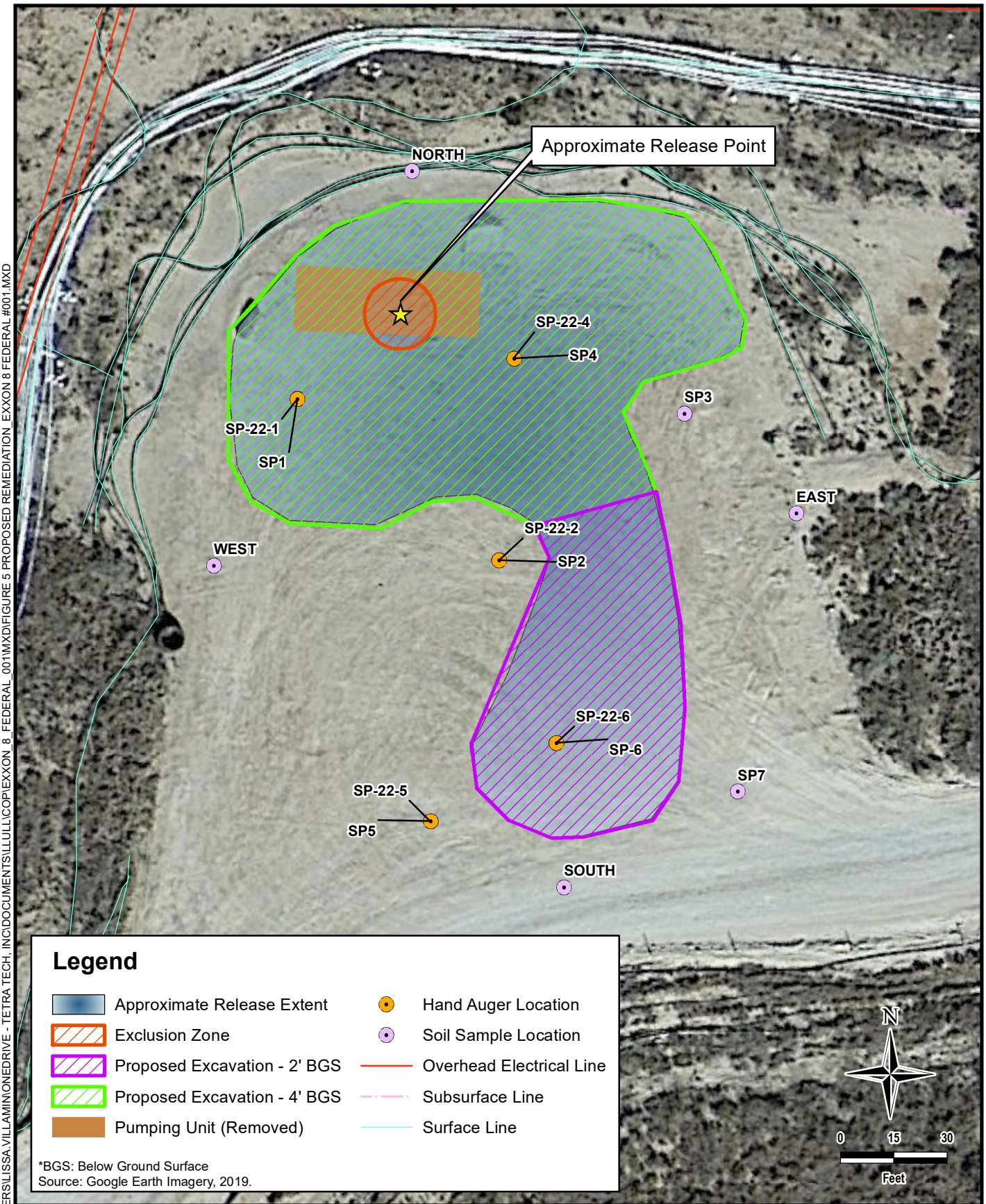
(32.150120°, -104.000860°)
EDDY COUNTY, NEW MEXICO

EXXON 8 FEDERAL #001
APPROXIMATE RELEASE EXTENT AND SITE ASSESSMENT
(TETRA TECH)

PROJECT NO.:	212C-MD-02832
DATE:	SEPTEMBER 20, 2022
DESIGNED BY:	LMV

Figure No.
4



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CONOCOPHILLIPS

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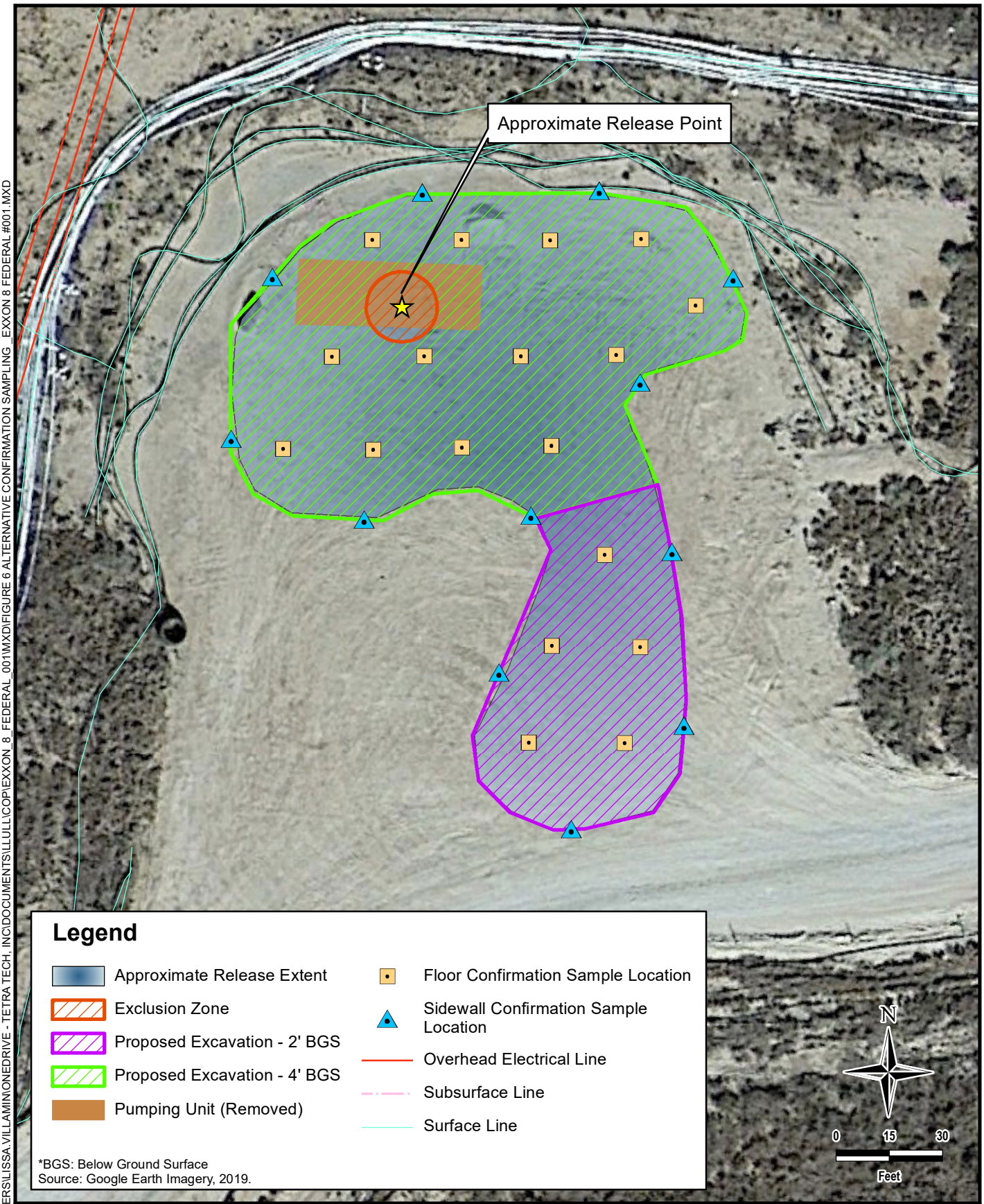
EDDY COUNTY, NEW MEXICO

EXXON 8 FEDERAL #001
PROPOSED REMEDIATION EXTENT

PROJECT NO.:	212C-MD-02832
DATE:	SEPTEMBER 20, 2022
DESIGNED BY:	LMV

Figure No.
5



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\EXXON_8_FEDERAL_001\MXD\FIGURE 6 ALTERNATIVE CONFIRMATION SAMPLING _EXXON 8 FEDERAL #001.MXD

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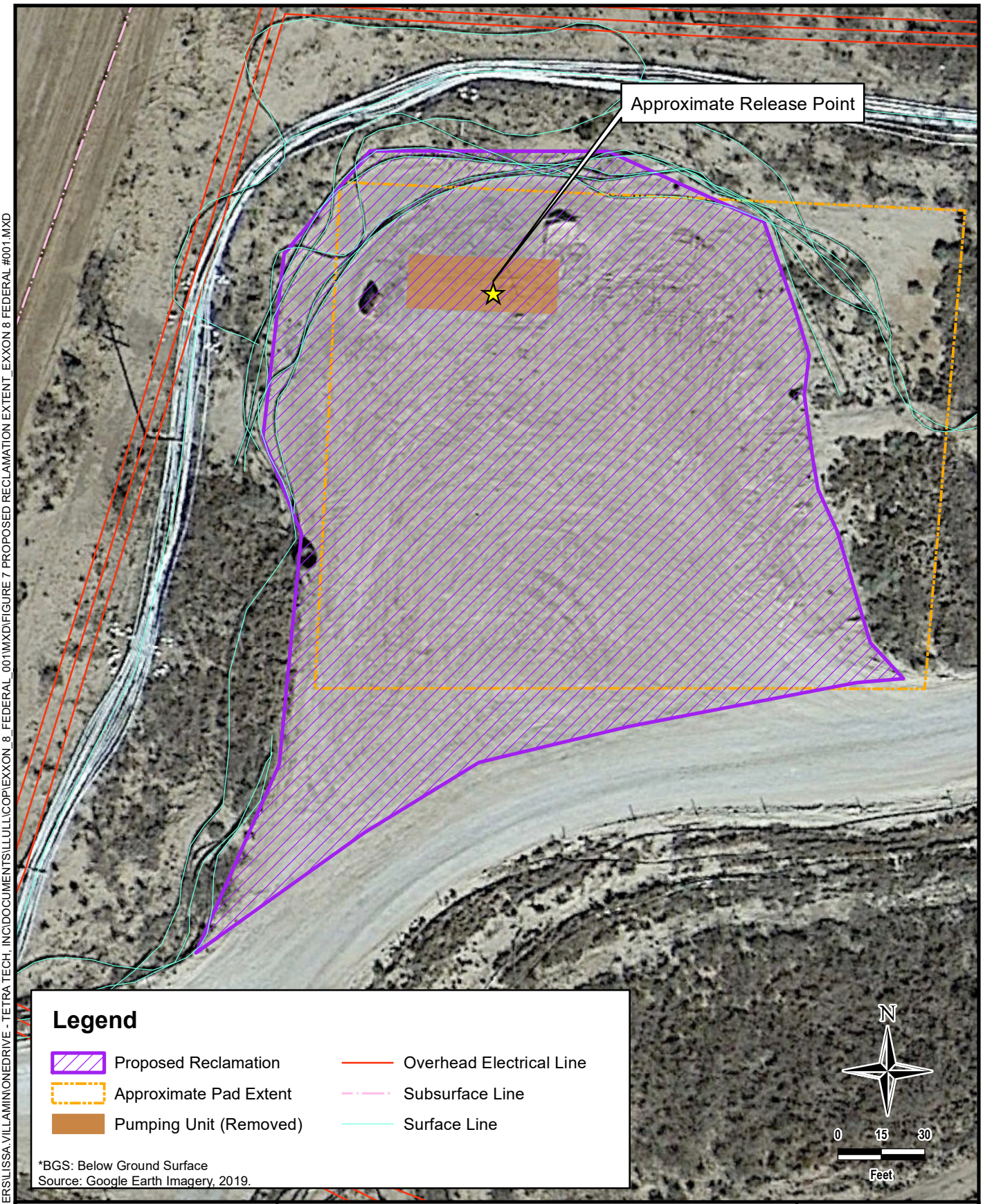
EDDY COUNTY, NEW MEXICO

EXXON 8 FEDERAL #001
ALTERNATIVE CONFIRMATION SAMPLING PLAN

PROJECT NO.:	212C-MD-02832
DATE:	SEPTEMBER 20, 2022
DESIGNED BY:	LMV

Figure No.
6



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EXXON 8 FEDERAL #001
PROPOSED RECLAMATION EXTENT

PROJECT NO.:	212C-MD-02832
DATE:	SEPTEMBER 20, 2022
DESIGNED BY:	LMV

Figure No.
7

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2018 SOIL ASSESSMENT - nAB1816358019
CONOCOPHILLIPS
EXXON 8 FEDERAL #001 RELEASE
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Chloride[1]		BTEX[2]										TPH[3]							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)	
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
SP1	9/5/2018	SURFACE	***7,280***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		65.2		17.7		82.9	
		1	***848***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		2	***7,200***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		3	***2,320***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		4	1,550		NA		NA		NA		NA		NA		NA		NA		NA		-	
		7	704		NA		NA		NA		NA		NA		NA		NA		NA		-	
		9	208		NA		NA		NA		NA		NA		NA		NA		NA		-	
		10	208		NA		NA		NA		NA		NA		NA		NA		NA		-	
SP2	9/5/2018	SURFACE	***7,760***	QM-07	< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		60.9		17.4		78.3	
		1	***864***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		2	***6,800***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		3	***3,120***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		4	1,330		NA		NA		NA		NA		NA		NA		NA		NA		-	
		7	704		NA		NA		NA		NA		NA		NA		NA		NA		-	
		9	448		NA		NA		NA		NA		NA		NA		NA		NA		-	
		10	496		NA		NA		NA		NA		NA		NA		NA		NA		-	
SP3	9/6/2018	SURFACE	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		1	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		2	64.0		NA		NA		NA		NA		NA		NA		NA		NA		-	
SP4	9/6/2018	SURFACE	***7,600***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		1,010		269		***1,279***	
		1	***2,360***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 50.0		9,540		2,710		***12,250***	
		2	336		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		3	192		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		4	672		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
	9/7/2018	7	640		NA		NA		NA		NA		NA		NA		NA		NA		-	
		8	416		NA		NA		NA		NA		NA		NA		NA		NA		-	
		9	224		NA		NA		NA		NA		NA		NA		NA		NA		-	
SP5	9/7/2018	SURFACE	***4,720***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 50.0		3,060		537		***3,597***	
		1	***2,040***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		2	***1,010***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		3	***1,020***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		4	8,480		NA		NA		NA		NA		NA		NA		NA		NA		-	
		7	256		NA		NA		NA		NA		NA		NA		NA		NA		-	
		8	160		NA		NA		NA		NA		NA		NA		NA		NA		-	
SP6	9/7/2018	SURFACE	***8,560***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		1	***656***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		2	***736***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		3	***880***		NA		NA		NA		NA		NA		NA		NA		NA		-	
		4	864		NA		NA		NA		NA		NA		NA		NA		NA		-	
		6	784		NA		NA		NA		NA		NA		NA		NA		NA		-	
		8	240		NA		NA		NA		NA		NA		NA		NA		NA		-	
		9	256		NA		NA		NA		NA		NA		NA		NA		NA		-	

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2018 SOIL ASSESSMENT - nAB1816358019
CONOCOPHILLIPS
EXXON 8 FEDERAL #001 RELEASE
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Chloride[1]		BTEX[2]										TPH[3]							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)	
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
SP7	9/7/2018	SURFACE	272		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		1	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
		2	240		NA		NA		NA		NA		NA		NA		NA		NA		-	
NORTH	9/7/2018	SURFACE	384		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
EAST	9/7/2018	SURFACE	176		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
SOUTH	9/7/2018	SURFACE	384		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
WEST	9/7/2018	SURFACE	272		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
NA Sample not analyzed
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics
1 Method SM4500Cl-B
2 Method 8021B
3 Method 8015M

Bold and italicized values indicate exceedance of proposed Remediation RRALs and Reclamation Requirements for soils above four feet below ground surface.

QUALIFIERS:

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

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
2022 SOIL ASSESSMENT- nAB1816358019
CONOCOPHILLIPS
EXXON 8 FEDERAL #001 RELEASE
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results	Chloride[1]		BTEX[2]										TPH[3]						
						Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
			Salinity													C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)
		ft. bgs	ppm	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
SP-22-1	9/8/2022	0-1	765	560		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	1,050	***848***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		4-5	740	656		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP-22-2	9/8/2022	0-1	478	272		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	486	224		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP-22-4	9/8/2022	0-1	1,180	***688***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 50.0		2,580		648		***3,228***
		2-3	1,490	***848***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 50.0		2,480		884		***3,364***
		4-5	1,740	1,440		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		47.0		< 10.0		47.0
SP-22-5	9/8/2022	0-1	699	464		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		30.4		35.2		65.6
		2-3	491	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		13.0		13.0
SP-22-6	9/8/2022	0-1	2,390	***2,160***		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	681	400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

Bold and italicized values indicate exceedance of proposed Remediation RRALs and Reclamation Requirements for soils above four feet below ground surface.

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

JUN 07 2018

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

DISTRICT II-ARTESIA O.C.D.

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

nAB1816358019

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: **Exxon 8 Federal #001**	Facility Type: Wellhead

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-25894

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	08	25S	29E	660	North	860	East	Eddy

Latitude 32.1501236 **Longitude** -104.0008392 NAD83

NATURE OF RELEASE

Type of Release Oil & Produced Water	Volume of Release 5 bbl. Oil 940 bbl. Produced Water	Volume Recovered 4 bbl. Oil 890 bbl. Produced Water
Source of Release Well Failure	Date and Hour of Occurrence June 2, 2018 4:00pm	Date and Hour of Discovery June 2, 2018 4:00pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher – NMOCD Shelly Tucker - BLM	
By Whom? Dakota Neel	Date and Hour: June 3, 2018 4:19pm	
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 packing on the pumping well over-pressured and ruptured. The packing was replaced.

Describe Area Affected and Cleanup Action Taken.*

The release was on location and in a roadway. 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: DeAnn Grant	OIL CONSERVATION DIVISION Approved by Environmental Specialist: Signed By
Printed Name: DeAnn Grant	
Title: HSE Administrative Assistant	Approval Date: 6/8/18 Expiration Date: N/A
E-mail Address: agrant@concho.com	Conditions of Approval: See attached Attached ☐
Date: June 7, 2018 Phone: (432) 253-4513	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 6/7/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number JRP-4802 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 7/7/2018. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

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: Jocelyn Harimon Date: 10/05/2022

State of New Mexico
Oil Conservation Division

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: Jocelyn Harimon Date: 10/05/2022

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

Signature: Jennifer Nobui Date: _____

APPENDIX B
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 04324 POD12	CUB	ED	2	2	2	08	25S	29E	594476	3557627	276	65	60	5
C 04324 POD6	CUB	ED	1	1	1	09	25S	29E	594538	3557657	346	62	61	1
C 04324 POD10	CUB	ED	1	1	1	09	25S	29E	594563	3557603	350	65	60	5
C 04324 POD8	CUB	ED	4	4	4	05	25S	29E	594442	3557807	365	69	65	4
C 04324 POD11	CUB	ED	1	1	1	09	25S	29E	594576	3557619	367	61	61	0
C 04324 POD9	CUB	ED	1	1	1	09	25S	29E	594590	3557676	400	72	62	10

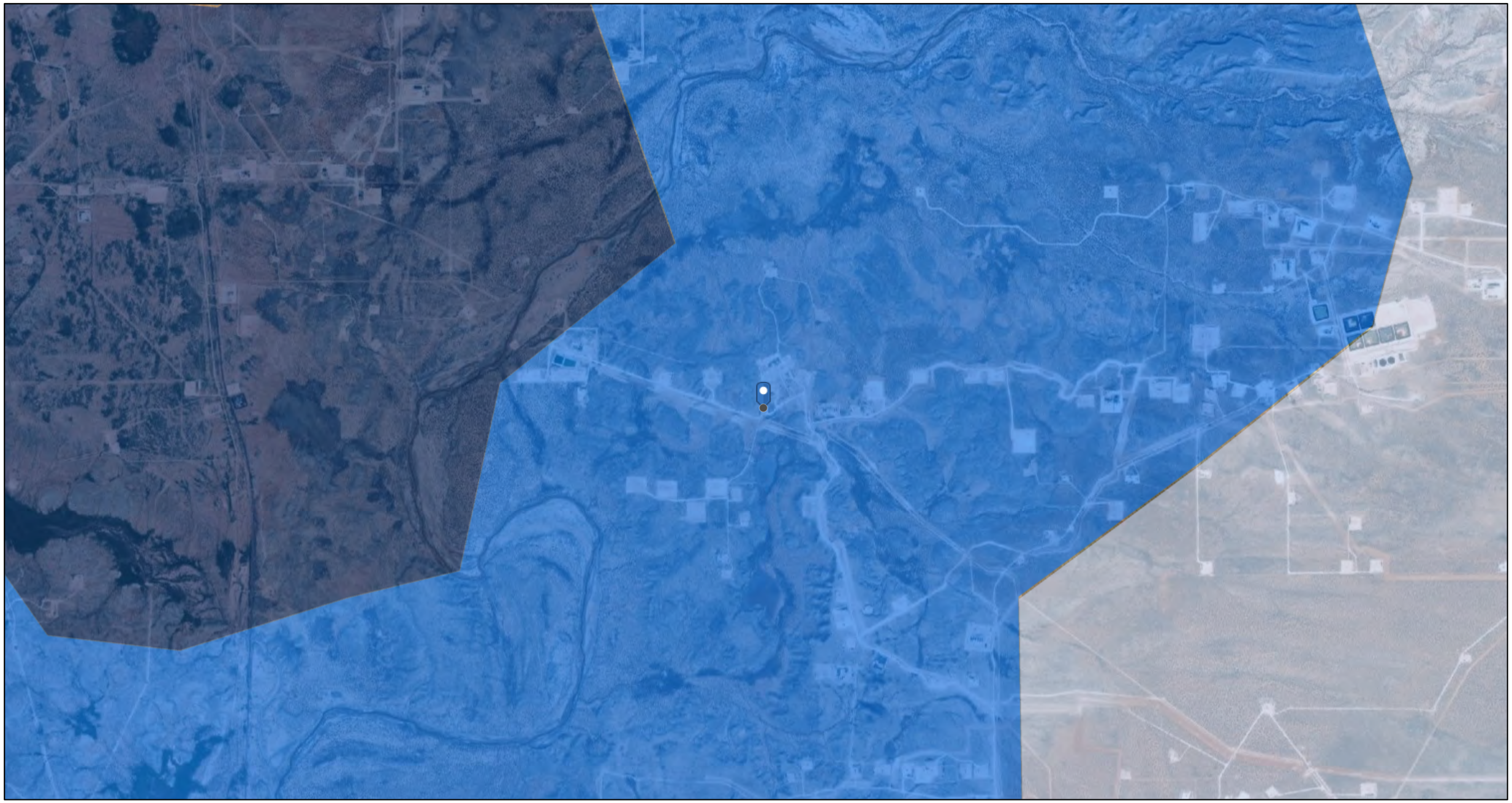
Average Depth to Water: **61 feet**
Minimum Depth: **60 feet**
Maximum Depth: **65 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 594224 **Northing (Y):** 3557513.18 **Radius:** 800

OCD - Karst Potential Map



8/30/2022, 12:15:58 PM

Karst Occurrence Potential

- High
- Medium
- Low

1:36,112

0 0.38 0.75 1.5 mi

0 0.5 1 2 km

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

OCD - Waterbodies Map

8/30/2022, 12:15:22 PM

OSW Water Bodys

OSE Streams

1:4,514

0 0.05 0.1 0.19 mi

0 0.07 0.15 0.3 km

Esri, HERE, Garmin, GeoTechnologies, Inc., Maxar, NM OSE

APPENDIX C
Laboratory Analytical Data

CARDINAL Laboratories

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

September 19, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: EXXON 8 FEDERAL #001 (6/2/18)

Enclosed are the results of analyses for samples received by the laboratory on 09/11/18 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ SURFACE (H802565-01)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/12/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7280**	16.0	09/13/2018	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	212	106	200	2.48	
DRO >C10-C28*	**65.2**	10.0	09/11/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	**17.7**	10.0	09/11/2018	ND					

Surrogate: 1-Chlorooctane *105 %* *41-142*

Surrogate: 1-Chlorooctadecane *115 %* *37.6-147*

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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:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ 1' (H802565-02)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/12/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**848**	16.0	09/13/2018	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	212	106	200	2.48	
DRO >C10-C28*	<10.0	10.0	09/11/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					

Surrogate: 1-Chlorooctane *107 %* *41-142*

Surrogate: 1-Chlorooctadecane *109 %* *37.6-147*

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ 2' (H802565-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7200**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 3' (H802565-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2320**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 4' (H802565-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1550**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 7' (H802565-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**704**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 9' (H802565-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	09/13/2018	ND	432	108	400	3.77	

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ 10' (H802565-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	09/13/2018	ND	432	108	400	3.77	

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ SURFACE (H802565-09)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7760**	16.0	09/13/2018	ND	416	104	400	0.00	QM-07

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	212	106	200	2.48	
DRO >C10-C28*	**60.9**	10.0	09/11/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	**17.4**	10.0	09/11/2018	ND					

Surrogate: 1-Chlorooctane *109 %* *41-142*

Surrogate: 1-Chlorooctadecane *116 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ 1' (H802565-10)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.2 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**864**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	212	106	200	2.48	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *111 %* *41-142*

Surrogate: 1-Chlorooctadecane *113 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ 2' (H802565-11)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6800**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 3' (H802565-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3120**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 4' (H802565-13)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1330**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 7' (H802565-14)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**704**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 9' (H802565-15)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**448**	16.0	09/13/2018	ND	416	104	400	0.00	

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ 10' (H802565-16)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**496**	16.0	09/13/2018	ND	416	104	400	0.00	

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 3 @ SURFACE (H802565-17)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.7 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *122 %* *41-142*

Surrogate: 1-Chlorooctadecane *116 %* *37.6-147*

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P.O. Box 805
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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 3 @ 1' (H802565-18)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *125 %* *41-142*

Surrogate: 1-Chlorooctadecane *118 %* *37.6-147*

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Analytical Results For:

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 3 @ 2' (H802565-19)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	09/13/2018	ND	416	104	400	0.00	

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Analytical Results For:

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ SURFACE (H802565-20)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7600**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	**1010**	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	**269**	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *117 %* *41-142*

Surrogate: 1-Chlorooctadecane *156 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 1' (H802565-21)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *87.1 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2360**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	**9540**	50.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	**2710**	50.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *119 %* *41-142*

Surrogate: 1-Chlorooctadecane *675 %* *37.6-147*

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 2' (H802565-22)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/18/2018	ND	2.03	101	2.00	2.80	
Toluene*	<0.050	0.050	09/18/2018	ND	1.97	98.3	2.00	2.01	
Ethylbenzene*	<0.050	0.050	09/18/2018	ND	1.96	97.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	09/18/2018	ND	5.95	99.1	6.00	2.52	
Total BTEX	<0.300	0.300	09/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/18/2018	ND	216	108	200	2.10	
DRO >C10-C28*	<10.0	10.0	09/18/2018	ND	225	113	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	09/18/2018	ND					

Surrogate: 1-Chlorooctane *126 %* *41-142*

Surrogate: 1-Chlorooctadecane *130 %* *37.6-147*

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Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 3' (H802565-23)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/18/2018	ND	2.03	101	2.00	2.80	
Toluene*	<0.050	0.050	09/18/2018	ND	1.97	98.3	2.00	2.01	
Ethylbenzene*	<0.050	0.050	09/18/2018	ND	1.96	97.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	09/18/2018	ND	5.95	99.1	6.00	2.52	
Total BTEX	<0.300	0.300	09/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/18/2018	ND	216	108	200	2.10	
DRO >C10-C28*	<10.0	10.0	09/18/2018	ND	225	113	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	09/18/2018	ND					

Surrogate: 1-Chlorooctane *120 %* *41-142*

Surrogate: 1-Chlorooctadecane *114 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 4' (H802565-24)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/19/2018	ND	2.03	101	2.00	2.80	
Toluene*	<0.050	0.050	09/19/2018	ND	1.97	98.3	2.00	2.01	
Ethylbenzene*	<0.050	0.050	09/19/2018	ND	1.96	97.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	09/19/2018	ND	5.95	99.1	6.00	2.52	
Total BTEX	<0.300	0.300	09/19/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.4 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/18/2018	ND	216	108	200	2.10	
DRO >C10-C28*	<10.0	10.0	09/18/2018	ND	225	113	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	09/18/2018	ND					

Surrogate: 1-Chlorooctane *128 %* *41-142*

Surrogate: 1-Chlorooctadecane *120 %* *37.6-147*

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Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 7' (H802565-25)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 4 @ 8' (H802565-26)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 4 @ 9' (H802565-27)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	09/13/2018	ND	416	104	400	0.00	

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Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 5 @ SURFACE (H802565-28)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.0 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4720**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	**3060**	50.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	**537**	50.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *127 %* *41-142*

Surrogate: 1-Chlorooctadecane *257 %* *37.6-147*

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Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 5 @ 1' (H802565-29)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.1 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2040**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *109 %* *41-142*

Surrogate: 1-Chlorooctadecane *105 %* *37.6-147*

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Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 5 @ 2' (H802565-30)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1010**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 3' (H802565-31)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1020**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 4' (H802565-32)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8480**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 7' (H802565-33)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 8' (H802565-34)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	09/13/2018	ND	416	104	400	0.00	

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Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ SURFACE (H802565-35)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8560**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *113 %* *41-142*

Surrogate: 1-Chlorooctadecane *107 %* *37.6-147*

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Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ 1' (H802565-36)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.8 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *127 %* *41-142*

Surrogate: 1-Chlorooctadecane *122 %* *37.6-147*

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Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ 2' (H802565-37)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**736**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 3' (H802565-38)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**880**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 4' (H802565-39)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**864**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 6' (H802565-40)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**784**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 8' (H802565-41)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/13/2018	ND	416	104	400	0.00	

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Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ 9' (H802565-42)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	09/13/2018	ND	416	104	400	0.00	

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Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 7 @ SURFACE (H802565-43)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.5 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *117 %* *41-142*

Surrogate: 1-Chlorooctadecane *110 %* *37.6-147*

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:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 7 @ 1' (H802565-44)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.6 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *110 %* *41-142*

Surrogate: 1-Chlorooctadecane *103 %* *37.6-147*

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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:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 7 @ 2' (H802565-45)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/13/2018	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: NORTH @ SURFACE (H802565-46)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.0 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *121 %* *41-142*

Surrogate: 1-Chlorooctadecane *115 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: EAST @ SURFACE (H802565-47)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.4 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *113 %* *41-142*

Surrogate: 1-Chlorooctadecane *107 %* *37.6-147*

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: WEST @ SURFACE (H802565-48)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.0 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *111 %* *41-142*

Surrogate: 1-Chlorooctadecane *105 %* *37.6-147*

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SOUTH @ SURFACE (H802565-49)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	09/13/2018	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *115 %* *41-142*

Surrogate: 1-Chlorooctadecane *111 %* *37.6-147*

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
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
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	BBC International, Inc.	**BILL TO**	**ANALYSIS REQUEST**
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COE
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Haskell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COE	**City:**	
Project Name:	Exxon 8 Federal #001 (6/2/18)	**State:** **Zip:**	
Project Location:	Eddy County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	TPH EXT									
H802565																										
1	SP1 @ SURFACE	G	1			✓					✓		9/5/18	10:33 AM	✓	✓	✓									
2	SP1 @ 1'	G	1			✓					✓		9/5/18	10:59 AM	✓	✓	✓									
3	SP1 @ 2'	G	1			✓					✓		9/5/18	11:11 AM	✓											
4	SP1 @ 3'	G	1			✓					✓		9/5/18	11:30 AM	✓											
5	SP1 @ 4'	G	1			✓					✓		9/5/18	11:45 AM	✓											
6	SP1 @ 7'	G	1			✓					✓		9/5/18	12:50 PM	✓											
7	SP1 @ 9'	G	1			✓					✓		9/5/18	1:25 PM	✓											
8	SP1 @ 10'	G	1			✓					✓		9/5/18	1:40 PM	✓											
9	SP2 @ SURFACE	G	1			✓					✓		9/5/18	1:41 PM	✓	✓	✓									
10	SP2 @ 1'	G	1			✓					✓		9/5/18	1:51 PM	✓	✓	✓									

Relinquished By: Jeff Ornelas	**Date:** 9/7/18 **Time:** 5:30pm	**Received By:**	**Phone Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By:	**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	**Fax Result:** ☐ Yes ☐ No **Add'l Fax #:**
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8c #197	**Sample Condition** Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	**CHECKED BY: (Initials)** T.O.	**REMARKS:**

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 5

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Haskell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COG	**City:**	
Project Name:	Exxon 8 Federal #001 (6/2/18)	**State:** **Zip:**	
Project Location:	Eddy County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	TPH EXT								
H802565																									
11	SP2 @ 2'	G	1			✓					✓		9/5/18	1:59 PM	✓										
12	SP2 @ 3'	G	1			✓					✓		9/5/18	2:16 PM	✓										
13	SP2 @ 4'	G	1			✓					✓		9/5/18	2:30 PM	✓										
14	SP2 @ 7'	G	1			✓					✓		9/5/18	3:15 PM	✓										
15	SP2 @ 9'	G	1			✓					✓		9/5/18	3:33 PM	✓										
16	SP2 @ 10'	G	1			✓					✓		9/5/18	3:47 PM	✓										
17	SP3 @ SURFACE	G	1			✓					✓		9/6/18	9:30 AM	✓	✓	✓								
18	SP3 @ 1'	G	1			✓					✓		9/6/18	10:10 AM	✓	✓	✓								
19	SP3 @ 2'	G	1			✓					✓		9/6/18	10:37 AM	✓										
20	SP4 @ SURFACE	G	1			✓					✓		9/6/18	11:12 AM	✓	✓	✓								

Relinquished By: Jeff Ornelas	**Date:** 9/7/18 **Time:** 5:30pm	**Received By:**	
Relinquished By:	**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8°C #97	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** T.O.	

Phone Result:	☐ Yes	☐ No	**Add'l Phone #:**
Fax Result:	☐ Yes	☐ No	**Add'l Fax #:**
REMARKS:			

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 of 5

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Haskell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COG	**City:**	
Project Name:	Exxon 8 Federal #001 (6/2/18)	**State:** **Zip:**	
Project Location:	Eddy County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

ANALYSIS REQUEST — Rush / added 9/18 / Rush / added 9/18

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl	BTEX	TPH EXT								
H802565																									
21	SP4 @ 1'	G	1			✓					✓		9/6/18	11:33 AM	✓	✓	✓								
22	SP4 @ 2'	G	1			✓					✓		9/6/18	12:12 PM	✓	✓	✓								
23	SP4 @ 3'	G	1			✓					✓		9/6/18	1:11 PM	✓	✓	✓								
24	SP4 @ 4'	G	1			✓					✓		9/6/18	1:59 PM	✓	✓	✓								
25	SP4 @ 7'	G	1			✓					✓		9/7/18	9:15 AM	✓										
26	SP4 @ 8'	G	1			✓					✓		9/7/18	9:49 AM	✓										
27	SP4 @ 9'	G	1			✓					✓		9/7/18	10:22 AM	✓										
28	SP5 @ SURFACE	G	1			✓					✓		9/7/18	10:45 AM	✓	✓	✓								
29	SP5 @ 1'	G	1			✓					✓		9/7/18	10:49 AM	✓	✓	✓								
30	SP5 @ 2'	G	1			✓					✓		9/7/18	11:05 AM	✓										

Relinquished By: Jeff Ornelas	**Date:** 9.7.18 **Time:** 5:30pm	**Received By:**	
Relinquished By:	**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8° #97	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** T.O.	

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
REMARKS:

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4 of 5

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Ha. Kell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COG	**City:**	
Project Name:	Exxon 8 Federal #001 (6/2/18)	**State:** **Zip:**	
Project Location:	Eddy County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	TPH EXT								
802565																									
31	SP5 @ 3'	G	1			✓					✓		9/7/18	11:11 AM	✓										
32	SP5 @ 4'	G	1			✓					✓		9/7/18	11:33 AM	✓										
33	SP5 @ 7'	G	1			✓					✓		9/7/18	12:49 PM	✓										
34	SP5 @ 8'	G	1			✓					✓		9/7/18	1:11 PM	✓										
35	SP6 @ SURFACE	G	1			✓					✓		9/7/18	1:12 PM	✓	✓	✓								
36	SP6 @ 1'	G	1			✓					✓		9/7/18	1:15 PM	✓	✓	✓								
37	SP6 @ 2'	G	1			✓					✓		9/7/18	1:25 PM	✓										
38	SP6 @ 3'	G	1			✓					✓		9/7/18	1:39 PM	✓										
39	SP6 @ 4'	G	1			✓					✓		9/7/18	1:51 PM	✓										
40	SP6 @ 6'	G	1			✓					✓		9/7/18	2:12 PM	✓										

Relinquished By:	Jeff Ornelas	**Date:**	9/7/18	**Received By:**	
		Time:	5:30pm		
Relinquished By:		**Date:**	9-11-18	**Received By:**	Tamara Oldaker
		Time:	13:00		
Delivered By: (Circle One)	Sampler - UPS - Bus - Other:	4.8°	#197	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** TO

Phone Result:	☐ Yes	☐ No	**Add'l Phone #:**
Fax Result:	☐ Yes	☐ No	**Add'l Fax #:**
REMARKS:			

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

5 of 5

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs	**State:** NM **Zip:** 88241	**Attn:** Haskell
Phone #:	575-397-6388	**Fax #:** 575-397-0397	**Address:**
Project #:		**Project Owner:** COG	**City:**
Project Name:	Exxon 8 Federal #001 (6/2/18)		**State:** **Zip:**
Project Location:	Eddy County, NM		**Phone #:**
Sampler Name:	Jeff Ornelas		**Fax #:**

ANALYSIS REQUEST

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING					
Lab I.D. H802565	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	TPH EXT	
41	SP6 @ 8'	G	1			✓					✓		9/7/18	2:45 PM	✓			
42	SP6 @ 9'	G	1			✓					✓		9/7/18	2:59 PM	✓			
43	SP7 @ SURFACE	G	1			✓					✓		9/7/18	3:01 PM	✓	✓	✓	
44	SP7 @ 1'	G	1			✓					✓		9/7/18	3:07 PM	✓	✓	✓	
45	SP7 @ 2'	G	1			✓					✓		9/7/18	3:10 PM	✓			
46	NORTH @ SURFACE	G	1			✓					✓		9/7/18	3:15 PM	✓	✓	✓	
47	EAST @ SURFACE	G	1			✓					✓		9/7/18	3:20 PM	✓	✓	✓	
48	WEST @ SURFACE	G	1			✓					✓		9/7/18	3:25 PM	✓	✓	✓	
49	SOUTH @ SURFACE	G	1			✓					✓		9/7/18	3:33 PM	✓	✓	✓	

Relinquished By:	Jeff Ornelas	**Date:** 9/7/18 **Time:** 5:30pm	**Received By:**	**Phone Result:** ☐ Yes ☐ No	**Add'l Phone #:**
Relinquished By:		**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	**Fax Result:** ☐ Yes ☐ No	**Add'l Fax #:**
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	4.8c #97	**Sample Condition** Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	**CHECKED BY: (Initials)** TO.	**REMARKS:**	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL Laboratories

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

September 14, 2022

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: EXXON 8 FEDERAL #001 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 09/09/22 8:32.

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

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

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 1 (0-1') (H224141-01)

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	09/13/2022	ND	2.00	100	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.95	97.6	2.00	12.9	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.93	96.5	2.00	11.6	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.93	98.8	6.00	10.2	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2022	ND	250	125	200	2.01	
DRO >C10-C28*	<10.0	10.0	09/13/2022	ND	244	122	200	6.11	
EXT DRO >C28-C36	<10.0	10.0	09/13/2022	ND					

Surrogate: 1-Chlorooctane *75.5 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *82.8 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 1 (2'-3') (H224141-02)

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	09/13/2022	ND	2.00	100	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.95	97.6	2.00	12.9	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.93	96.5	2.00	11.6	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.93	98.8	6.00	10.2	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**848**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	213	106	200	0.615	
DRO >C10-C28*	<10.0	10.0	09/12/2022	ND	220	110	200	4.77	
EXT DRO >C28-C36	<10.0	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *81.2 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *94.7 %* *46.3-178*

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 2 (0-1') (H224141-03)

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	09/13/2022	ND	2.00	100	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.95	97.6	2.00	12.9	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.93	96.5	2.00	11.6	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.93	98.8	6.00	10.2	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	213	106	200	0.615	
DRO >C10-C28*	<10.0	10.0	09/12/2022	ND	220	110	200	4.77	
EXT DRO >C28-C36	<10.0	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *93.3 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *110 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 2 (2'-3') (H224141-04)

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	09/13/2022	ND	2.00	100	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.95	97.6	2.00	12.9	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.93	96.5	2.00	11.6	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.93	98.8	6.00	10.2	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	213	106	200	0.615	
DRO >C10-C28*	<10.0	10.0	09/12/2022	ND	220	110	200	4.77	
EXT DRO >C28-C36	<10.0	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *95.6 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *112 %* *46.3-178*

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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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 4 (0-1') (H224141-05)

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	09/14/2022	ND	1.96	97.9	2.00	5.76	
Toluene*	<0.050	0.050	09/14/2022	ND	1.98	99.1	2.00	5.36	
Ethylbenzene*	<0.050	0.050	09/14/2022	ND	1.93	96.5	2.00	5.12	
Total Xylenes*	<0.150	0.150	09/14/2022	ND	6.04	101	6.00	5.35	
Total BTEX	<0.300	0.300	09/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**688**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK **S-06**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/12/2022	ND	213	106	200	0.615	
DRO >C10-C28*	**2580**	50.0	09/12/2022	ND	220	110	200	4.77	
EXT DRO >C28-C36	**648**	50.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *364 %* *46.3-178*

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 4 (1'-2') (H224141-06)

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	09/14/2022	ND	1.96	97.9	2.00	5.76	
Toluene*	<0.050	0.050	09/14/2022	ND	1.98	99.1	2.00	5.36	
Ethylbenzene*	<0.050	0.050	09/14/2022	ND	1.93	96.5	2.00	5.12	
Total Xylenes*	<0.150	0.150	09/14/2022	ND	6.04	101	6.00	5.35	
Total BTEX	<0.300	0.300	09/14/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**848**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/12/2022	ND	213	106	200	0.615	
DRO >C10-C28*	**2480**	50.0	09/12/2022	ND	220	110	200	4.77	
EXT DRO >C28-C36	**884**	50.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *96.2 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *217 %* *46.3-178*

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 5 (0-1') (H224141-07)

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	09/14/2022	ND	1.96	97.9	2.00	5.76	
Toluene*	<0.050	0.050	09/14/2022	ND	1.98	99.1	2.00	5.36	
Ethylbenzene*	<0.050	0.050	09/14/2022	ND	1.93	96.5	2.00	5.12	
Total Xylenes*	<0.150	0.150	09/14/2022	ND	6.04	101	6.00	5.35	
Total BTEX	<0.300	0.300	09/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**464**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	213	106	200	0.615	
DRO >C10-C28*	**30.4**	10.0	09/12/2022	ND	220	110	200	4.77	
EXT DRO >C28-C36	**35.2**	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *92.1 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *108 %* *46.3-178*

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 5 (2'-3') (H224141-08)

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	09/13/2022	ND	1.93	96.7	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.96	97.8	2.00	14.3	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.89	94.4	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.92	98.6	6.00	10.5	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	213	106	200	0.615	
DRO >C10-C28*	<10.0	10.0	09/12/2022	ND	220	110	200	4.77	
EXT DRO >C28-C36	**13.0**	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *92.2 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *108 %* *46.3-178*

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 6 (0-1') (H224141-09)

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	09/13/2022	ND	1.93	96.7	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.96	97.8	2.00	14.3	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.89	94.4	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.92	98.6	6.00	10.5	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2160**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	236	118	200	1.60	
DRO >C10-C28*	<10.0	10.0	09/12/2022	ND	203	102	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *97.3 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *106 %* *46.3-178*

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 6 (2'-3') (H224141-10)

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	09/13/2022	ND	1.93	96.7	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.96	97.8	2.00	14.3	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.89	94.4	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.92	98.6	6.00	10.5	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	236	118	200	1.60	
DRO >C10-C28*	<10.0	10.0	09/12/2022	ND	203	102	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *85.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *92.5 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 1 (4'-5') (H224141-11)

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	09/13/2022	ND	1.93	96.7	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.96	97.8	2.00	14.3	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.89	94.4	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.92	98.6	6.00	10.5	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	236	118	200	1.60	
DRO >C10-C28*	<10.0	10.0	09/12/2022	ND	203	102	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *98.7 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *106 %* *46.3-178*

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:	09/09/2022	Sampling Date:	09/08/2022
Reported:	09/14/2022	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02832	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

Sample ID: SP - 22 - 4 (4'-5') (H224141-12)

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	09/13/2022	ND	1.93	96.7	2.00	14.9	
Toluene*	<0.050	0.050	09/13/2022	ND	1.96	97.8	2.00	14.3	
Ethylbenzene*	<0.050	0.050	09/13/2022	ND	1.89	94.4	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/13/2022	ND	5.92	98.6	6.00	10.5	
Total BTEX	<0.300	0.300	09/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1440**	16.0	09/13/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2022	ND	236	118	200	1.60	
DRO >C10-C28*	**47.0**	10.0	09/12/2022	ND	203	102	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	09/12/2022	ND					

Surrogate: 1-Chlorooctane *85.1 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *94.1 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-04	The RPD for the BS/BSD was outside of historical limits.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
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

1/2

Company Name: ConocoPhillips
Project Manager: Christian Llull
Address:
City: State: Zip:
Phone #: Fax #:
Project #: 2RP-MD-02832 Project Owner:
Project Name: Exxon 8 Federal #001 Release
Project Location: Eddy County, NM
Sampler Name: Colton Bickerstaff

BILL TO

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

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH	BTEX	Chlorides
H224141																	
1	SP-22-1 (0-1')	G	1			X					X		9/8/22		X	X	X
2	SP-22-1 (2'-3')																
3	SP-22-2 (0-1')																
4	SP-22-2 (2'-3')																
5	SP-22-4 (0-1')																
6	SP-22-4 (1'-2')																
7	SP-22-5 (0-1')																
8	SP-22-5 (2'-3')																
9	SP-22-6 (0-1')																
10	SP-22-6 (2'-3')																

Relinquished By: Date: 9/9/22 Time: 0832
Received By: Tamara Oldaker
Relinquished By: Date: Time:
Received By:

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

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 0.8
Corrected Temp. °C 0.2
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TO

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113
Correction Factor -0.6°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2/2

Company Name:	ConocoPhillips
Project Manager:	Christian Llull
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	212C-MD-02832 Project Owner:
Project Name:	Exxon 8 Federal #001 Release
Project Location:	Eddy County NM
Sampler Name:	Colton Brekenhoff

BILL TO

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

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH	BTEX	Chlorides
H224141																	
11	SP-22-1 (4'-5')	G	1			X					X		9/8/22		X	X	X
12	SP-22-4 (4'-5')	G	1			X					X		9/8/22		X	X	X

Relinquished By:	Date: 9/9/22 Time: 0832	Received By:	Verbal Result: ☐ Yes ☑ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: Christian.Llull@tetratech.com
			REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 0.8 Corrected Temp. °C 0.2	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) TO	Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #113 Correction Factor -0.5°C	Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

APPENDIX D
Regulatory Correspondence
&
Delineation Workplan
(BBC International Incorporated, 2018)

From: Cliff Brunson <cbrunson@bbcinternational.com>
Sent: Thursday, November 8, 2018 2:21 PM
To: Maria Pruett; 'Shelly Tucker'
Cc: Rebecca Haskell; Dakota Neel; Sheldon Hitchcock; DeAnn Grant; Ike Tavarez; 'Ken Swinney'; 'Jennifer Gilkey'; 'Kathy Purvis'
Subject: [External] COG Exxon 8 Federal #001 (2RP-4802) - Delineation Workplan
Attachments: Delineation Workplan-3, Exxon 8 Federal #001 (6-2-18).pdf

**** External email. Use caution. ****
Maria and Shelly,

Please find the attached Delineation Workplan and remediation proposal for the COG Exxon 8 Federal #001 (2RP-4802). COG is requesting that you review this plan and is looking forward to the OCD's and BLM's approval.

COG will contact the BLM directly to negotiate a plan for the reclamation of the well pad.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com

From:	Rebecca Haskell
To:	Billings, Bradford, EMNRD; stucker@blm.gov
Cc:	Mike Bratcher (Mike.Bratcher@state.nm.us); Hamlet, Robert, EMNRD (Robert.Hamlet@state.nm.us); DeAnn Grant; Dakota Neel; Sheldon Hitchcock; Ike Tavarez; Rebecca Haskell
Subject:	(Resubmittal) COG Exxon 8 Federal #001 (2RP-4802) - Delineation Workplan
Date:	Monday, January 07, 2019 10:53:02 AM
Attachments:	image001.jpg Delineation Workplan-3, Exxon 8 Federal #001 (6-2-18).pdf image002.jpg

Mr. Billings/Ms. Tucker,

Please find the attached Delineation Work Plan for the COG Exxon 8 Federal #001 (2RP-4802) Release which occurred on 6/2/18. The work plan was originally submitted to the NMOCD District 2 Office on November 8, 2018. COG is requesting that you review the work plan and let us know if we can proceed.

Thank You,

Becky Haskell
Senior HSE Coordinator
COG Operating LLC
600 W Illinois Avenue | Midland, TX 79701
Direct: 432-818-2372 | Main: 432.683.7443
Cell: 432-556-5130
rhaskell@concho.com

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Thursday, November 08, 2018 2:21 PM
To: Maria Pruett <maria.pruett@state.nm.us>; 'Shelly Tucker' <stucker@blm.gov>
Cc: Rebecca Haskell <RHaskell@concho.com>; Dakota Neel <DNeel2@concho.com>; Sheldon Hitchcock <SLHitchcock@concho.com>; DeAnn Grant <agrant@concho.com>; Ike Tavarez <itavarez@concho.com>; 'Ken Swinney' <kswinney@bbcinternational.com>; 'Jennifer Gilkey' <jgilkey@bbcinternational.com>; 'Kathy Purvis' <kathy@bbcinternational.com>
Subject: [External] COG Exxon 8 Federal #001 (2RP-4802) - Delineation Workplan

**** External email. Use caution. ****
Maria and Shelly,

Please find the attached Delineation Workplan and remediation proposal for the COG Exxon 8 Federal #001 (2RP-4802). COG is requesting that you review this plan and is looking forward to the OCD's and BLM's approval.

COG will contact the BLM directly to negotiate a plan for the reclamation of the well pad.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com

BBC INTL LOGO3

BBC INTERNATIONAL INCORPORATED

PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805
E-MAIL: cbrunson@bbcinternational.com

DELINEATION WORKPLAN

COG – EXXON 8 FEDERAL #001
(Leak Date: 6/2/18)

RP # 2RP-4802

This delineation workplan and remediation proposal addresses the release associated with RP # 1RP-4802.

The following information includes:

1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
2. GPS information for sample points and sample methodology
3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
4. Laboratory analysis results summary table and original laboratory analysis reports
5. A copy of the initial C-141
6. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD rules, the following remediation is proposed:

COG will excavate the spill area as depicted on the following site diagram. The leak area near SP5 (YELLOW shade on diagram) will be excavated to a depth of 6 inches. Bottom and sidewall confirmation samples will be collected at no greater than 50 ft. intervals. Estimated volume of material to be removed is 10 cubic yards. The remediation will be completed within 90 days of plan approval.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner upon well pad abandonment.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4802
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?	165 (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	2RP-4802
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: Rebecca Haskell Title: Senior HSE Coordinator

Signature: Rebecca Haskell Date: 11/7/18

email: rhaskell@concho.com Telephone: (432) 683-7443

OCD Only

Received by: Date:

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4802
Facility ID	
Application ID	

Remediation Plan

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

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] 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: Rebecca Haskell Title: Senior HSE Coordinator

Signature: Rebecca Haskell Date:

email: rhaskell@concho.com Telephone: (432) 683-7443

OCD Only

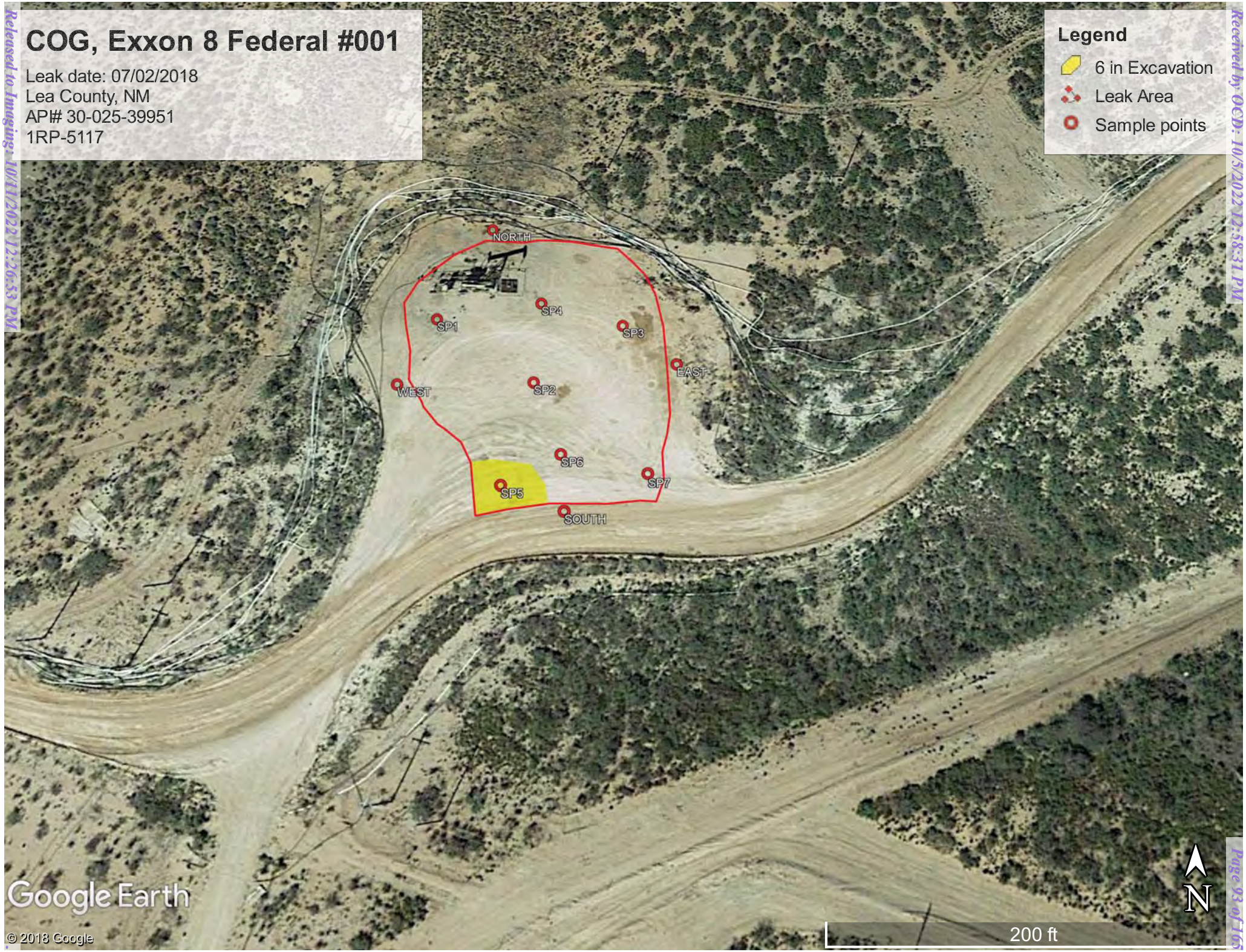
Received by: Date:

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Date:

COG, Exxon 8 Federal #001

Leak date: 07/02/2018
Lea County, NM
API# 30-025-39951
1RP-5117



COG, Exxon 8 Federal #001

Sample points

SP1, N 32.15004 W-104.00099

SP2, N 32.14992 W-104.00080

SP3, N 32.15003 W-104.00063

SP4, N 32.15007 W-104.00079

SP5, N 32.14973 W-104.00085

SP6, N 32.14979 W-104.00074

SP7, N 32.14975 W-104.00059

NORTH, N 32.15022 W-104.00089

SOUTH, N 32.14969 W-104.00074

EAST, N 32.14995 W-104.00053

WEST, N 32.14991 W-104.00106

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 Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02518	C	ED	3	4		08	25S	29E	593895	3556300*	1273	462		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 594289 **Northing (Y):** 3557511 **Radius:** 1700

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

USGS science for a changing world

USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: New Mexico | GO

Click to hideNews Bulletins

- Please see news on new formats
- **UPDATE, 10/31: The USGS continues to make progress on restoring all of the gages. As of noon Wednesday, October 31, approximately 6 percent of USGS streamgages are still not transmitting due to an issue with the telemetry system that records and transmits streamgage data. Read more**
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320719103584601

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320719103584601 25S.29E.16.44444

Eddy County, New Mexico
Latitude 32°07'19", Longitude 103°58'46" NAD27
Land-surface elevation 3,042 feet above NAVD88
The depth of the well is 200 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1958-08-19		D	170.14			2		U		
1958-10-23		D	170.80			2		U		
1975-12-09		D	164.95			2		S	USGS	
1976-01-16		D	167.12			2		S	USGS	
1977-01-14		D	165.05			2		S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined

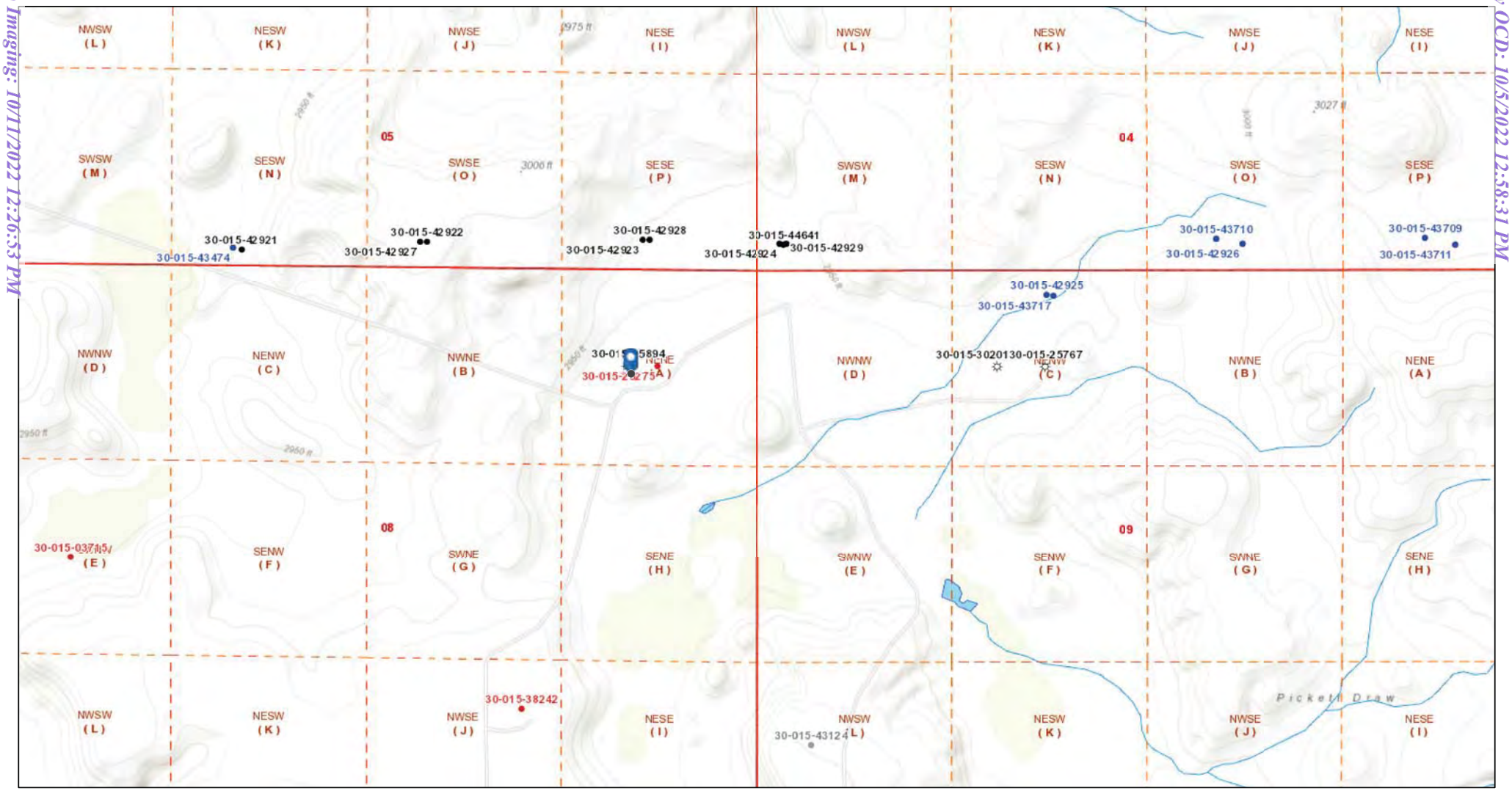
Section	Code	Description
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility Plug-Ins FOIA Privacy Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for New Mexico: Water Levels
URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: New Mexico Water Data Maintainer
Page Last Modified: 2018-11-01 12:19:11 EDT
0.51 0.43 nadww01

Exxon 8 Federal #001, TOPO w/ Water Feature Map



11/1/2018 10:25:57 AM

1:9,028

0 0.07 0.15 0.3 mi

0 0.15 0.3 0.6 km

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, OCD, BLM

Well Locations - Small Scale
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporaily Abandoned

- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abondoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water InjectionTemporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division

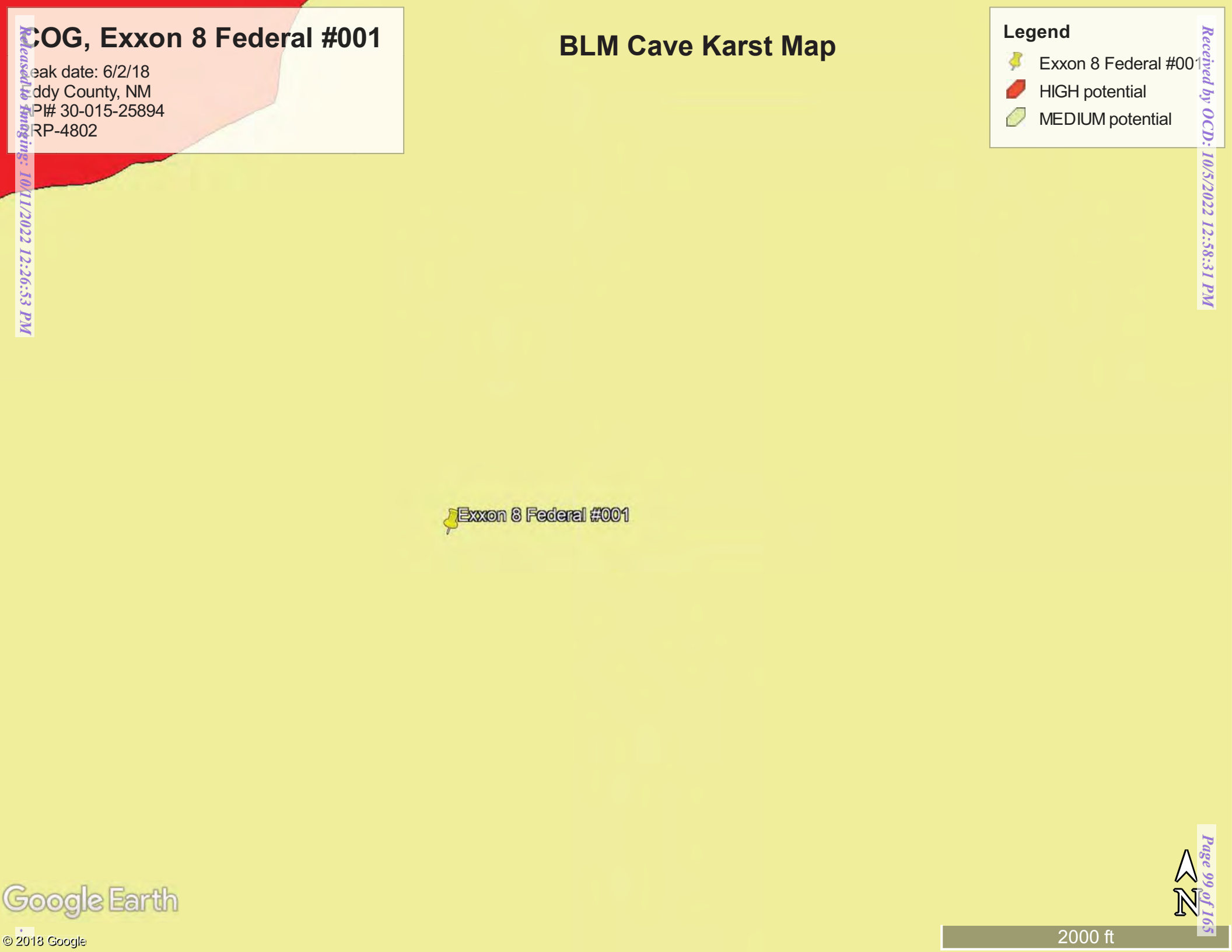
COG, Exxon 8 Federal #001

eak date: 6/2/18
ddy County, NM
PI# 30-015-25894
RP-4802

BLM Cave Karst Map

Legend

- Exxon 8 Federal #001
- HIGH potential
- MEDIUM potential



National Flood Hazard Layer FIRMette

Feet
0 250 500 1,000 1,500 2,000
1:6,000

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
  - 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 11/1/2018 at 12:38:10 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.

Laboratory Analytical Results Summary
Exxon 8 Federal #001 (6/2/18)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'	SP1 @ 7'	SP1 @ 9'	SP1 @ 10'
Analyte	**Method**	**Date**	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		**7280**	**848**	**7200**	**2320**	**1550**	**704**	**208**	**208**
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		**65.2**	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		**17.7**	<10.0	n/a	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 7'	SP2 @ 9'	SP2 @ 10'
Analyte	**Method**	**Date**	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18	9/5/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		**7760**	**864**	**6800**	**3120**	**1330**	**704**	**448**	**496**
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		**60.9**	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		**17.4**	<10.0	n/a	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'
Analyte	**Method**	**Date**	9/6/18	9/6/18	9/6/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a
Chloride	SM4500Cl-B		**112**	**64**	**64**
GRO	TPH 8015M		<10.0	<10.0	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a

		Sample ID	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 4'	SP4 @ 7'	SP4 @ 8'	SP4 @ 9'
Analyte	**Method**	**Date**	9/6/18	9/6/18	9/6/18	9/6/18	9/6/18	9/7/18	9/7/18	9/7/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		**7600**	**2360**	**336**	**192**	**672**	**640**	**416**	**224**
GRO	TPH 8015M		<10.0	<50.0	<10.0	<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		**1010**	**9540**	<10.0	<10.0	<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		**269**	**2710**	<10.0	<10.0	<10.0	n/a	n/a	n/a

Laboratory Analytical Results Summary
Exxon 8 Federal #001 (6/2/18)

		Sample ID	SP5 @ SURFACE	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'	SP5 @ 4'	SP5 @ 7'	SP5 @ 8'
Analyte	Method	Date	9/7/18	9/7/18	9/7/18	9/7/18	9/7/18	9/7/18	9/7/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		**4720**	**2040**	**1010**	**1020**	**8480**	**256**	**160**
GRO	TPH 8015M		<50.0	<10.0	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		**3060**	<10.0	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		**537**	<10.0	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP6 @ SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'	SP6 @ 4'	SP6 @ 6'	SP6 @ 8'	SP6 @ 9'
Analyte	Method	Date	9/7/18	9/7/18	9/7/18	9/7/18	9/7/18	9/7/18	9/7/18	9/7/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		**8560**	**656**	**736**	**880**	**864**	**784**	**240**	**256**
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP7 @ SURFACE	SP7 @ 1'	SP7 @ 2'
Analyte	Method	Date	9/7/18	9/7/18	9/7/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a
Chloride	SM4500Cl-B		**272**	**240**	**240**
GRO	TPH 8015M		<10.0	<10.0	n/a
DRO	TPH 8015M		<10.0	<10.0	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	9/7/18	9/7/18	9/7/18	9/7/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		**384**	**176**	**384**	**272**
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

CARDINAL Laboratories

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

September 19, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: EXXON 8 FEDERAL #001 (6/2/18)

Enclosed are the results of analyses for samples received by the laboratory on 09/11/18 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ SURFACE (H802565-01)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/12/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7280**	16.0	09/13/2018	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	212	106	200	2.48	
DRO >C10-C28*	**65.2**	10.0	09/11/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	**17.7**	10.0	09/11/2018	ND					

Surrogate: 1-Chlorooctane *105 %* *41-142*

Surrogate: 1-Chlorooctadecane *115 %* *37.6-147*

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:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ 1' (H802565-02)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/12/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**848**	16.0	09/13/2018	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	212	106	200	2.48	
DRO >C10-C28*	<10.0	10.0	09/11/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					

Surrogate: 1-Chlorooctane *107 %* *41-142*

Surrogate: 1-Chlorooctadecane *109 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ 2' (H802565-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7200**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 3' (H802565-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2320**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 4' (H802565-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1550**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 7' (H802565-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**704**	16.0	09/13/2018	ND	432	108	400	3.77	

Sample ID: SP 1 @ 9' (H802565-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	09/13/2018	ND	432	108	400	3.77	

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 1 @ 10' (H802565-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	09/13/2018	ND	432	108	400	3.77	

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ SURFACE (H802565-09)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7760**	16.0	09/13/2018	ND	416	104	400	0.00	QM-07

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	212	106	200	2.48	
DRO >C10-C28*	**60.9**	10.0	09/11/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	**17.4**	10.0	09/11/2018	ND					

Surrogate: 1-Chlorooctane *109 %* *41-142*

Surrogate: 1-Chlorooctadecane *116 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ 1' (H802565-10)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.2 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**864**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	212	106	200	2.48	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	213	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *111 %* *41-142*

Surrogate: 1-Chlorooctadecane *113 %* *37.6-147*

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Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ 2' (H802565-11)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6800**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 3' (H802565-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3120**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 4' (H802565-13)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1330**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 7' (H802565-14)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**704**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 2 @ 9' (H802565-15)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**448**	16.0	09/13/2018	ND	416	104	400	0.00	

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Received:	09/11/2018	Sampling Date:	09/05/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 2 @ 10' (H802565-16)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**496**	16.0	09/13/2018	ND	416	104	400	0.00	

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 3 @ SURFACE (H802565-17)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.7 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *122 %* *41-142*

Surrogate: 1-Chlorooctadecane *116 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 3 @ 1' (H802565-18)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *125 %* *41-142*

Surrogate: 1-Chlorooctadecane *118 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 3 @ 2' (H802565-19)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	09/13/2018	ND	416	104	400	0.00	

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ SURFACE (H802565-20)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.04	102	2.00	1.48	
Toluene*	<0.050	0.050	09/13/2018	ND	1.91	95.7	2.00	1.35	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	1.92	96.0	2.00	1.08	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	5.74	95.6	6.00	1.20	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7600**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	**1010**	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	**269**	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *117 %* *41-142*

Surrogate: 1-Chlorooctadecane *156 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 1' (H802565-21)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *87.1 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2360**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	**9540**	50.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	**2710**	50.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *119 %* *41-142*

Surrogate: 1-Chlorooctadecane *675 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 2' (H802565-22)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/18/2018	ND	2.03	101	2.00	2.80	
Toluene*	<0.050	0.050	09/18/2018	ND	1.97	98.3	2.00	2.01	
Ethylbenzene*	<0.050	0.050	09/18/2018	ND	1.96	97.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	09/18/2018	ND	5.95	99.1	6.00	2.52	
Total BTEX	<0.300	0.300	09/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/18/2018	ND	216	108	200	2.10	
DRO >C10-C28*	<10.0	10.0	09/18/2018	ND	225	113	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	09/18/2018	ND					

Surrogate: 1-Chlorooctane *126 %* *41-142*

Surrogate: 1-Chlorooctadecane *130 %* *37.6-147*

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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:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 3' (H802565-23)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/18/2018	ND	2.03	101	2.00	2.80	
Toluene*	<0.050	0.050	09/18/2018	ND	1.97	98.3	2.00	2.01	
Ethylbenzene*	<0.050	0.050	09/18/2018	ND	1.96	97.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	09/18/2018	ND	5.95	99.1	6.00	2.52	
Total BTEX	<0.300	0.300	09/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/18/2018	ND	216	108	200	2.10	
DRO >C10-C28*	<10.0	10.0	09/18/2018	ND	225	113	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	09/18/2018	ND					

Surrogate: 1-Chlorooctane *120 %* *41-142*

Surrogate: 1-Chlorooctadecane *114 %* *37.6-147*

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/06/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 4' (H802565-24)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/19/2018	ND	2.03	101	2.00	2.80	
Toluene*	<0.050	0.050	09/19/2018	ND	1.97	98.3	2.00	2.01	
Ethylbenzene*	<0.050	0.050	09/19/2018	ND	1.96	97.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	09/19/2018	ND	5.95	99.1	6.00	2.52	
Total BTEX	<0.300	0.300	09/19/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.4 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/18/2018	ND	216	108	200	2.10	
DRO >C10-C28*	<10.0	10.0	09/18/2018	ND	225	113	200	3.75	
EXT DRO >C28-C36	<10.0	10.0	09/18/2018	ND					

Surrogate: 1-Chlorooctane *128 %* *41-142*

Surrogate: 1-Chlorooctadecane *120 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 4 @ 7' (H802565-25)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 4 @ 8' (H802565-26)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 4 @ 9' (H802565-27)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	09/13/2018	ND	416	104	400	0.00	

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Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 5 @ SURFACE (H802565-28)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.0 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4720**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	**3060**	50.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	**537**	50.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *127 %* *41-142*

Surrogate: 1-Chlorooctadecane *257 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 5 @ 1' (H802565-29)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.1 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2040**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *109 %* *41-142*

Surrogate: 1-Chlorooctadecane *105 %* *37.6-147*

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Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 5 @ 2' (H802565-30)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1010**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 3' (H802565-31)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1020**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 4' (H802565-32)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8480**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 7' (H802565-33)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 5 @ 8' (H802565-34)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	09/13/2018	ND	416	104	400	0.00	

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Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ SURFACE (H802565-35)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.9 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8560**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *113 %* *41-142*

Surrogate: 1-Chlorooctadecane *107 %* *37.6-147*

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ 1' (H802565-36)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.8 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *127 %* *41-142*

Surrogate: 1-Chlorooctadecane *122 %* *37.6-147*

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ 2' (H802565-37)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**736**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 3' (H802565-38)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**880**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 4' (H802565-39)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**864**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 6' (H802565-40)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**784**	16.0	09/13/2018	ND	416	104	400	0.00	

Sample ID: SP 6 @ 8' (H802565-41)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/13/2018	ND	416	104	400	0.00	

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Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 6 @ 9' (H802565-42)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	09/13/2018	ND	416	104	400	0.00	

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Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 7 @ SURFACE (H802565-43)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.5 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *117 %* *41-142*

Surrogate: 1-Chlorooctadecane *110 %* *37.6-147*

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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:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 7 @ 1' (H802565-44)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.6 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *110 %* *41-142*

Surrogate: 1-Chlorooctadecane *103 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SP 7 @ 2' (H802565-45)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/13/2018	ND	416	104	400	0.00	

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: NORTH @ SURFACE (H802565-46)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.0 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *121 %* *41-142*

Surrogate: 1-Chlorooctadecane *115 %* *37.6-147*

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: EAST @ SURFACE (H802565-47)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.4 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *113 %* *41-142*

Surrogate: 1-Chlorooctadecane *107 %* *37.6-147*

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: WEST @ SURFACE (H802565-48)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.0 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	09/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *111 %* *41-142*

Surrogate: 1-Chlorooctadecane *105 %* *37.6-147*

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	09/11/2018	Sampling Date:	09/07/2018
Reported:	09/19/2018	Sampling Type:	Soil
Project Name:	EXXON 8 FEDERAL #001 (6/2/18)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SOUTH @ SURFACE (H802565-49)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2018	ND	2.51	125	2.00	0.0315	
Toluene*	<0.050	0.050	09/13/2018	ND	2.35	117	2.00	0.766	
Ethylbenzene*	<0.050	0.050	09/13/2018	ND	2.34	117	2.00	0.666	
Total Xylenes*	<0.150	0.150	09/13/2018	ND	7.06	118	6.00	0.621	
Total BTEX	<0.300	0.300	09/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.3 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	09/13/2018	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2018	ND	202	101	200	2.32	
DRO >C10-C28*	<10.0	10.0	09/12/2018	ND	210	105	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	09/12/2018	ND					

Surrogate: 1-Chlorooctane *115 %* *41-142*

Surrogate: 1-Chlorooctadecane *111 %* *37.6-147*

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 5

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Haskell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COG	**City:**	
Project Name:	Exxon 8 Federal #001 (6/2/18)	**State:** **Zip:**	
Project Location:	Eddy County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D. H802565	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	TPH EXT									
1	SP1 @ SURFACE	G	1			✓					✓		9/5/18	10:33 AM	✓	✓	✓									
2	SP1 @ 1'	G	1			✓					✓		9/5/18	10:59 AM	✓	✓	✓									
3	SP1 @ 2'	G	1			✓					✓		9/5/18	11:11 AM	✓											
4	SP1 @ 3'	G	1			✓					✓		9/5/18	11:30 AM	✓											
5	SP1 @ 4'	G	1			✓					✓		9/5/18	11:45 AM	✓											
6	SP1 @ 7'	G	1			✓					✓		9/5/18	12:50 PM	✓											
7	SP1 @ 9'	G	1			✓					✓		9/5/18	1:25 PM	✓											
8	SP1 @ 10'	G	1			✓					✓		9/5/18	1:40 PM	✓											
9	SP2 @ SURFACE	G	1			✓					✓		9/5/18	1:41 PM	✓	✓	✓									
10	SP2 @ 1'	G	1			✓					✓		9/5/18	1:51 PM	✓	✓	✓									

Relinquished By: Jeff Ornelas	**Date:** 9/7/18 **Time:** 5:30pm	**Received By:**	
Relinquished By:	**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	4.8c #197	**Sample Condition** Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	**CHECKED BY: (Initials)** T.O.

Phone Result:	☐ Yes	☐ No	**Add'l Phone #:**
Fax Result:	☐ Yes	☐ No	**Add'l Fax #:**
REMARKS:			

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 5

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs	**State:** NM **Zip:** 88241	**Attn:** Haskell
Phone #:	575-397-6388	**Fax #:** 575-397-0397	**Address:**
Project #:		**Project Owner:** COG	**City:**
Project Name:	Exxon 8 Federal #001 (6/2/18)		**State:** **Zip:**
Project Location:	Eddy County, NM		**Phone #:**
Sampler Name:	Jeff Ornelas		**Fax #:**

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	TPH EXT								
H802565																									
11	SP2 @ 2'	G	1			✓					✓		9/5/18	1:59 PM	✓										
12	SP2 @ 3'	G	1			✓					✓		9/5/18	2:16 PM	✓										
13	SP2 @ 4'	G	1			✓					✓		9/5/18	2:30 PM	✓										
14	SP2 @ 7'	G	1			✓					✓		9/5/18	3:15 PM	✓										
15	SP2 @ 9'	G	1			✓					✓		9/5/18	3:33 PM	✓										
16	SP2 @ 10'	G	1			✓					✓		9/5/18	3:47 PM	✓										
17	SP3 @ SURFACE	G	1			✓					✓		9/6/18	9:30 AM	✓	✓	✓								
18	SP3 @ 1'	G	1			✓					✓		9/6/18	10:10 AM	✓	✓	✓								
19	SP3 @ 2'	G	1			✓					✓		9/6/18	10:37 AM	✓										
20	SP4 @ SURFACE	G	1			✓					✓		9/6/18	11:12 AM	✓	✓	✓								

Relinquished By: Jeff Ornelas	**Date:** 9/7/18 **Time:** 5:30pm	**Received By:**	
Relinquished By:	**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8° #97	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** T.O.	

Phone Result:	☐ Yes	☐ No	**Add'l Phone #:**
Fax Result:	☐ Yes	☐ No	**Add'l Fax #:**
REMARKS:			

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

385

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Haskell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COG	**City:**	
Project Name:	Exxon 8 Federal #001 (6/2/18)	**State:** **Zip:**	
Project Location:	Eddy County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

ANALYSIS REQUEST — Rush / added 9/18 / Rush / added 9/18

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl	BTEX	TPH EXT								
H802565																									
21	SP4 @ 1'	G	1			✓					✓		9/6/18	11:33 AM	✓	✓	✓								
22	SP4 @ 2'	G	1			✓					✓		9/6/18	12:12 PM	✓	✓	✓								
23	SP4 @ 3'	G	1			✓					✓		9/6/18	1:11 PM	✓	✓	✓								
24	SP4 @ 4'	G	1			✓					✓		9/6/18	1:59 PM	✓	✓	✓								
25	SP4 @ 7'	G	1			✓					✓		9/7/18	9:15 AM	✓										
26	SP4 @ 8'	G	1			✓					✓		9/7/18	9:49 AM	✓										
27	SP4 @ 9'	G	1			✓					✓		9/7/18	10:22 AM	✓										
28	SP5 @ SURFACE	G	1			✓					✓		9/7/18	10:45 AM	✓	✓	✓								
29	SP5 @ 1'	G	1			✓					✓		9/7/18	10:49 AM	✓	✓	✓								
30	SP5 @ 2'	G	1			✓					✓		9/7/18	11:05 AM	✓										

Relinquished By: Jeff Ornelas	**Date:** 9.7.18 **Time:** 5:30pm	**Received By:**	
Relinquished By:	**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8° #97	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** T.O.	

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
REMARKS:

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Ha. Stell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COG	**City:**	
Project Name:	Exxon 8 Federal #001 (6/2/18)	**State:** **Zip:**	
Project Location:	Eddy County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D. 802565	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl	BTEX	TPH EXT									
31	SP5 @ 3'	G	1			✓					✓		9/7/18	11:11 AM	✓											
32	SP5 @ 4'	G	1			✓					✓		9/7/18	11:33 AM	✓											
33	SP5 @ 7'	G	1			✓					✓		9/7/18	12:49 PM	✓											
34	SP5 @ 8'	G	1			✓					✓		9/7/18	1:11 PM	✓											
35	SP6 @ SURFACE	G	1			✓					✓		9/7/18	1:12 PM	✓	✓	✓									
36	SP6 @ 1'	G	1			✓					✓		9/7/18	1:15 PM	✓	✓	✓									
37	SP6 @ 2'	G	1			✓					✓		9/7/18	1:25 PM	✓											
38	SP6 @ 3'	G	1			✓					✓		9/7/18	1:39 PM	✓											
39	SP6 @ 4'	G	1			✓					✓		9/7/18	1:51 PM	✓											
40	SP6 @ 6'	G	1			✓					✓		9/7/18	2:12 PM	✓											

Relinquished By: Jeff Ornelas	**Date:** 9/7/18 **Time:** 5:30pm	**Received By:**	**Phone Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By:	**Date:** 9-11-18 **Time:** 13:00	**Received By:** Tamara Oldaker	**Fax Result:** ☐ Yes ☐ No **Add'l Fax #:**
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8° #197	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** TO	**REMARKS:**

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

5 of 5

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

Company Name: BBC International, Inc.	BILL TO
Project Manager: Cliff Brunson	P.O. #:
Address: P.O. Box 805	Company: COG
City: Hobbs State: NM Zip: 88241	Attn: Haskell
Phone #: 575-397-6388 Fax #: 575-397-0397	Address:
Project #: Project Owner: COG	City:
Project Name: Exxon 8 Federal #001 (6/2/18)	State: Zip:
Project Location: Eddy County, NM	Phone #:
Sampler Name: Jeff Ornelas	Fax #:

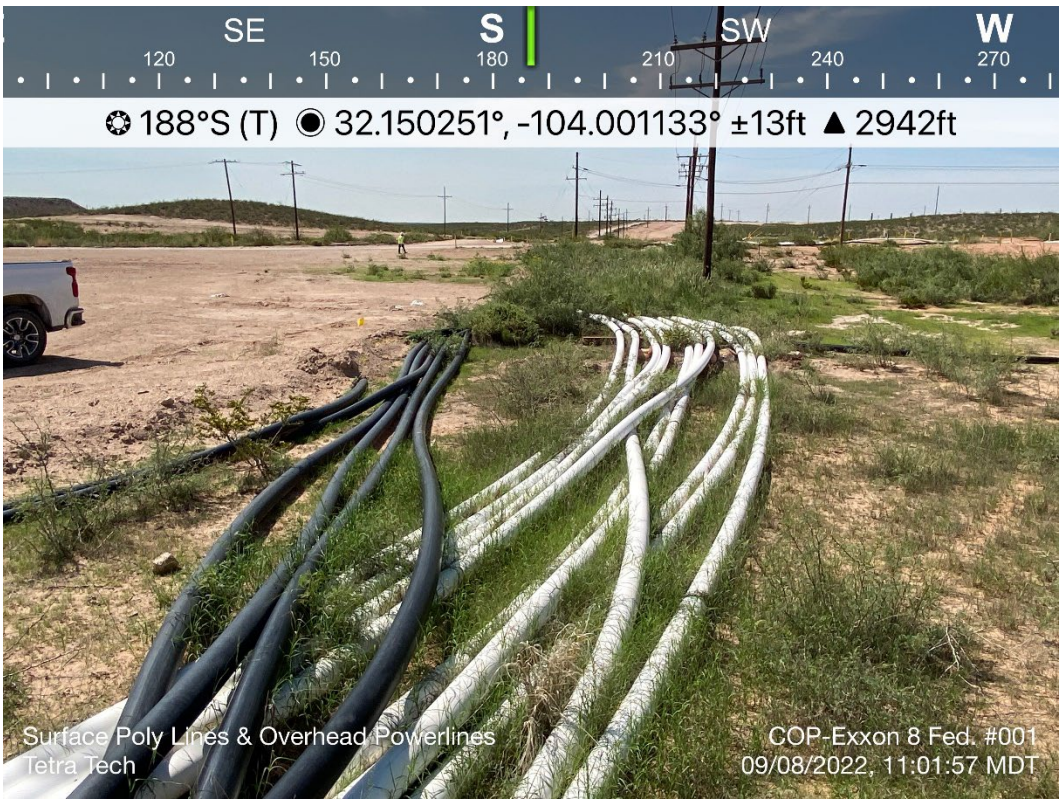
FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	TIME	Cl	BTEX	TPH EXT									
H802505																										
41	SP6 @ 8'	G	1			✓					✓		9/7/18	2:45 PM	✓											
42	SP6 @ 9'	G	1			✓					✓		9/7/18	2:59 PM	✓											
43	SP7 @ SURFACE	G	1			✓					✓		9/7/18	3:01 PM	✓	✓	✓									
44	SP7 @ 1'	G	1			✓					✓		9/7/18	3:07 PM	✓	✓	✓									
45	SP7 @ 2'	G	1			✓					✓		9/7/18	3:10 PM	✓											
46	NORTH @ SURFACE	G	1			✓					✓		9/7/18	3:15 PM	✓	✓	✓									
47	EAST @ SURFACE	G	1			✓					✓		9/7/18	3:20 PM	✓	✓	✓									
48	WEST @ SURFACE	G	1			✓					✓		9/7/18	3:25 PM	✓	✓	✓									
49	SOUTH @ SURFACE	G	1			✓					✓		9/7/18	3:33 PM	✓	✓	✓									

Relinquished By: Jeff Ornelas	Date: 9/7/18 Time: 5:30pm	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 9-11-18 Time: 13:00	Received By: Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8c #97	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) TO.	REMARKS:

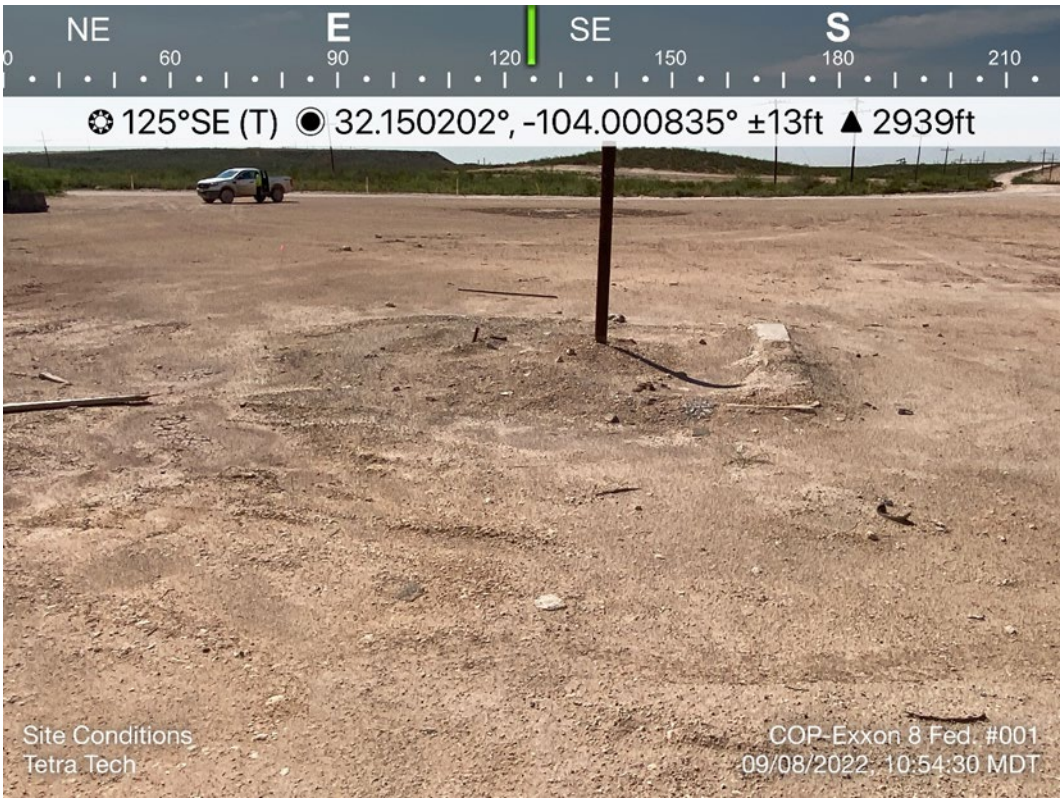
† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

APPENDIX E
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View northeast across pad with lease road to east.	1
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022

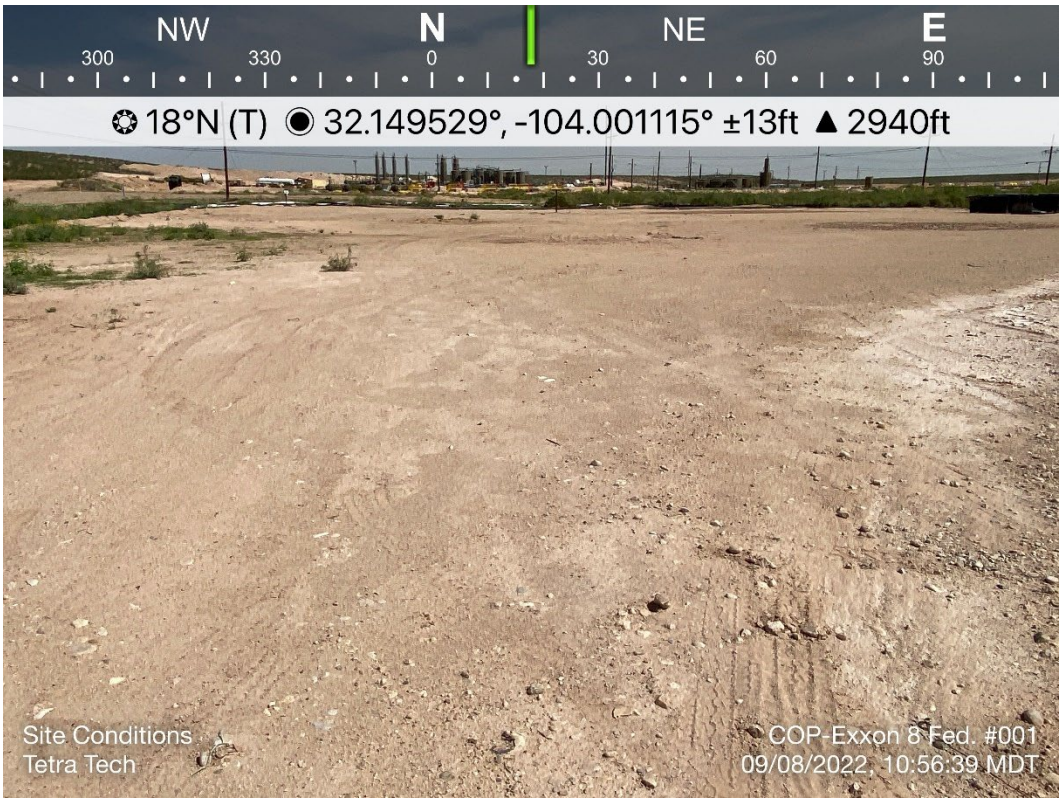


TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View south. West side of pad. Overhead power lines. Mass of flow lines.	2
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022

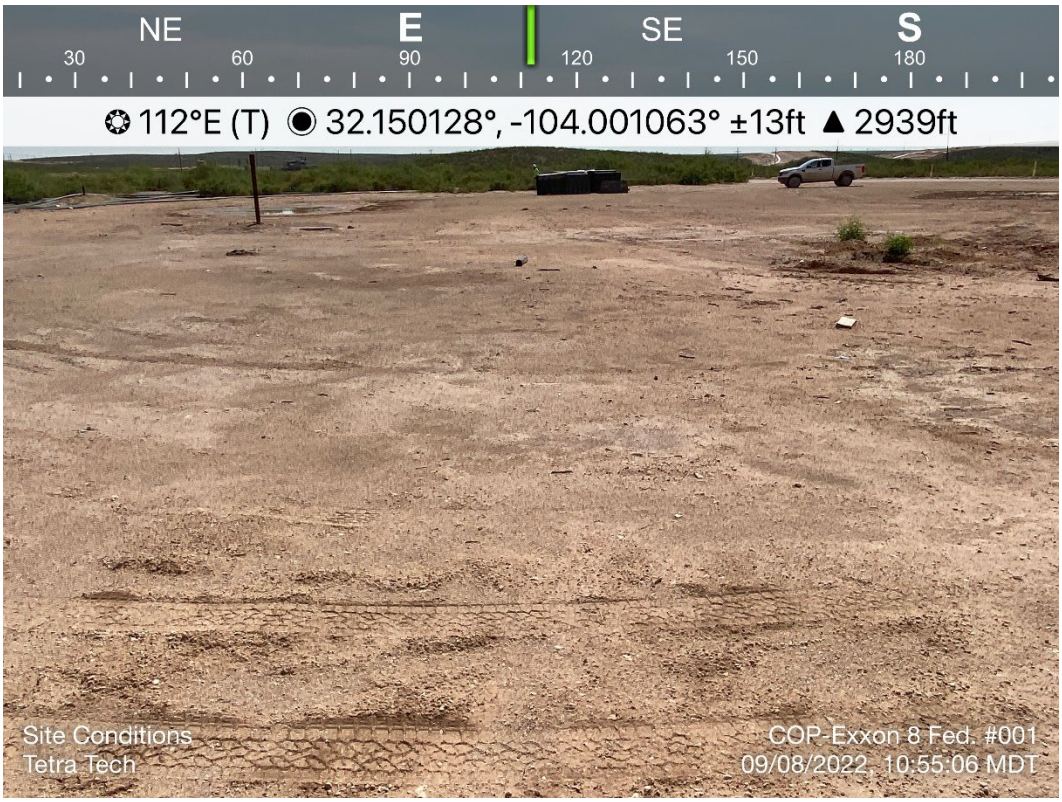


TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View east. Plugged well. No staining observed.	3
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022

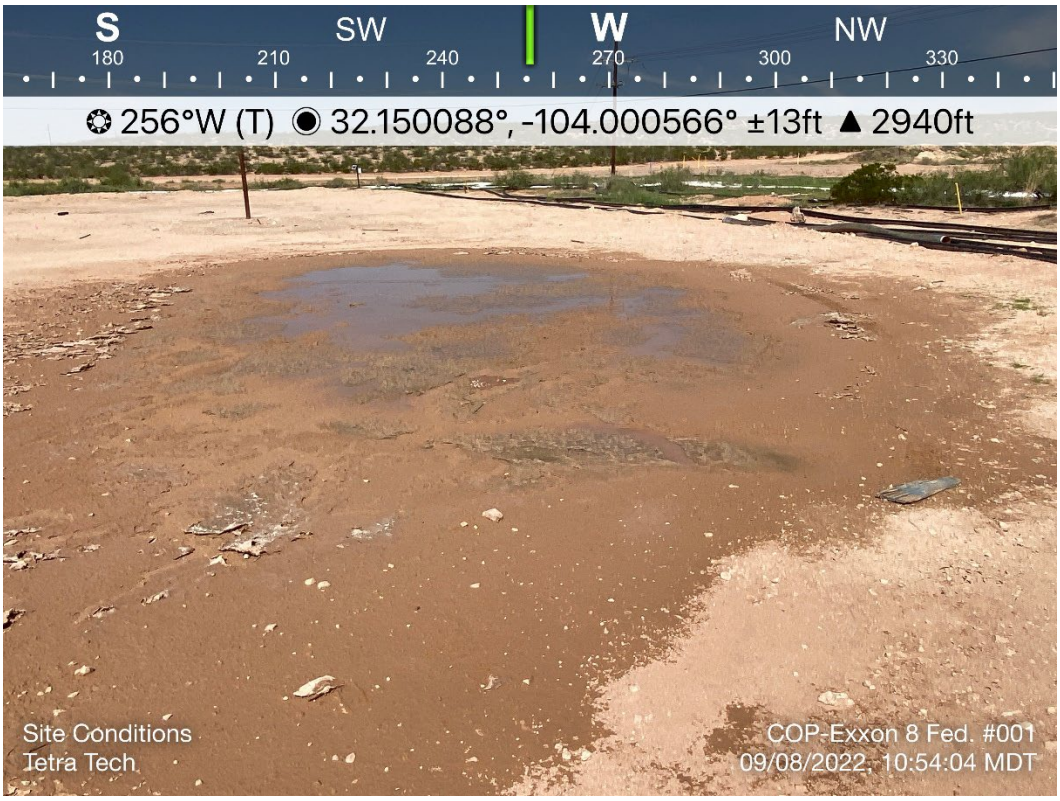
TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View east. Former tank battery located in north central area of pad. Ponded rainwater visible in background.	4
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View north. Former Release area.	5
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022

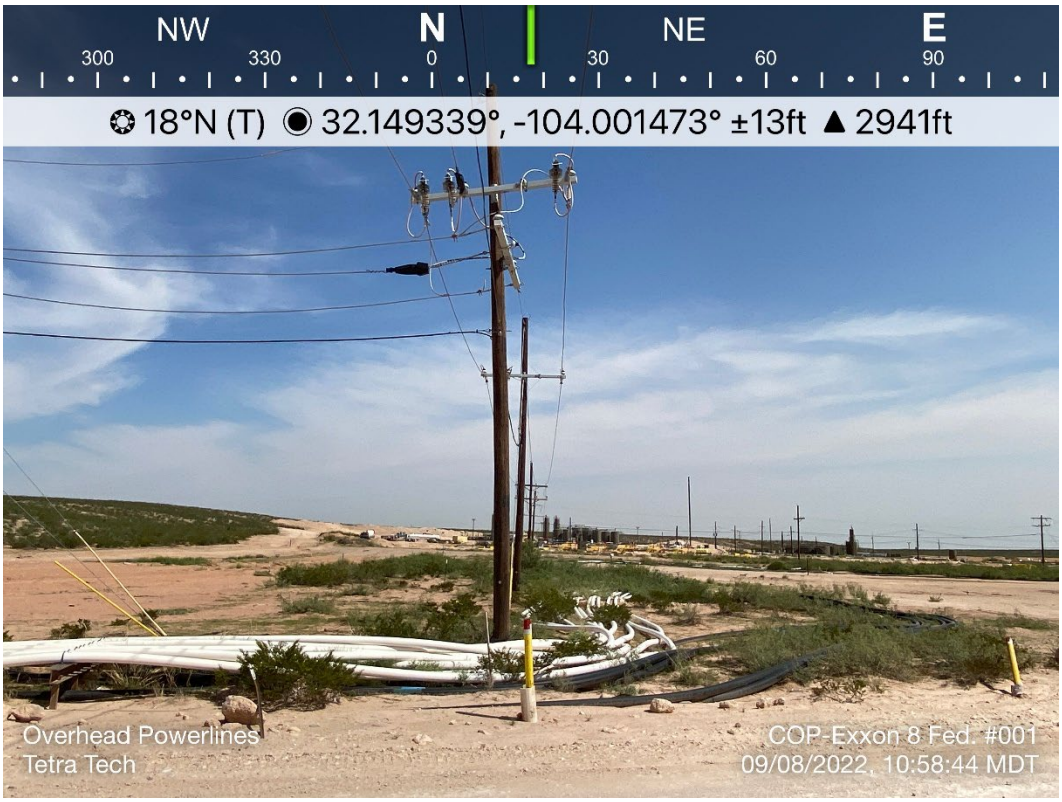


TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View east. Plugged well. Temporary barricades. Release area.	6
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022

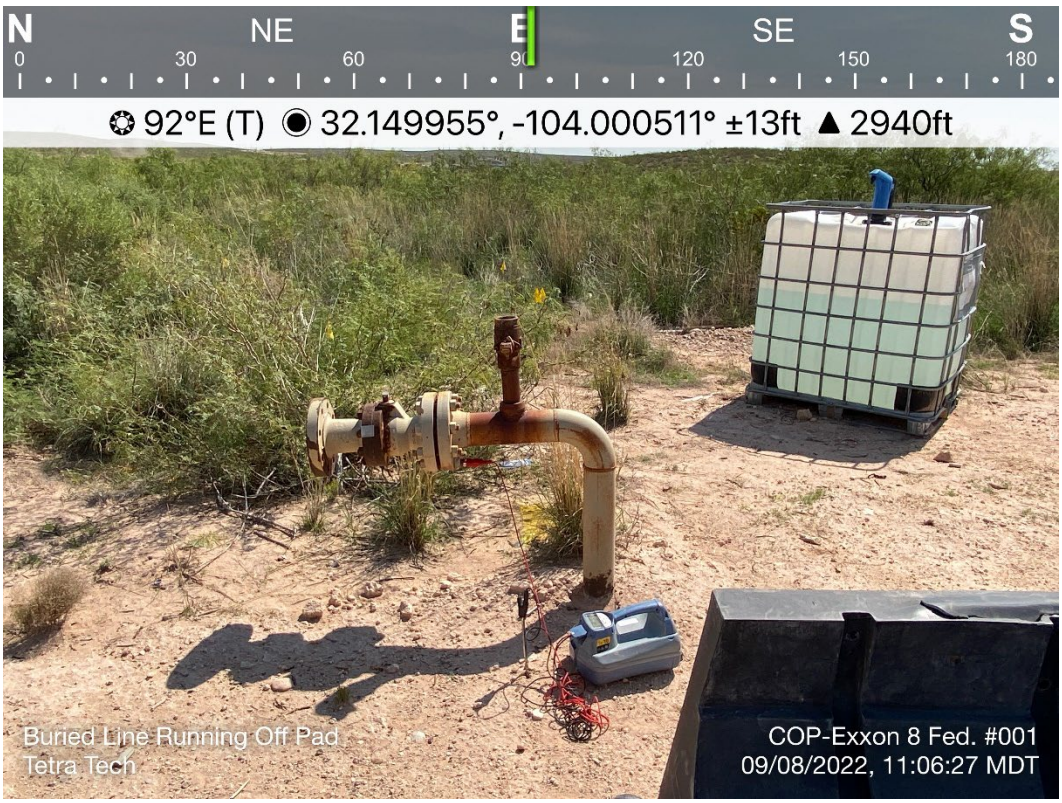


TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View of ponded rainwater on pad in surface depression.	7
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022

TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View northeast over pad area.	8
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View north. Surface polylines. Overhead electrical.	9
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View east. Surface flange and subsurface steel line. Unknown liquid tote.	10
	SITE NAME	EXXON 8 FEDERAL #001 Release	9/8/2022

APPENDIX F
Seed Mixture Details

3.2 Seed Mixture for LPC Sand/Shinnery Sites

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

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

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

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

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

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Eddy Area, New Mexico

September 16, 2022

Preface

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

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

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

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

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

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

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Contents

How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

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

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

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

Soil Map

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

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

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

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PD	Pajarito-Dune land complex, 0 to 3 percent slopes	0.6	100.0%
Totals for Area of Interest		**0.6**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

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

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

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

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

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

Eddy Area, New Mexico

PD—Pajarito-Dune land complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w55
Elevation: 3,000 to 5,000 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Pajarito and similar soils: 46 percent
Dune land: 45 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pajarito

Setting

Landform: Plains, interdunes, dunes
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 36 inches: fine sandy loam
H3 - 36 to 72 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 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: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Description of Dune Land

Setting

Landform: Dune fields
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Talf
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy loam

Interpretive groups

Land capability classification (irrigated): None specified
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Rock outcrop

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

Largo

Percent of map unit: 4 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

References

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CONDITIONS

Operator:	OGRID:
COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	229137
	Action Number: 149020
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Composite confirmation samples will be collected from the bottom and sidewalls of the excavation from areas representing no more than four hundred (400) square feet.	10/11/2022