TETRA TECH

June 17, 2020

Bradford Billings
Hydrologist
District 2 Artesia
Oil Conservation Division
Santa Fe, NM 87505

Subject: **Closure Letter Report**
ConocoPhillips
1RP-3216
Wilder Federal #29-5H Frac Tank Release
Lea County, New Mexico

Mr. Billings:

On behalf of ConocoPhillips (COP), Tetra Tech, Inc. (Tetra Tech) submits the following Closure Report for review. The ConocoPhillips Wilder Federal #29-5H well (API No. 30-025-41509) is located approximately 42 miles southeast of Carlsbad in Lea County, New Mexico (Figure 1). The well is located in the Public Land Survey System (PLSS) Unit Letter A, Section 29, Township 26 South, Range 32 East, and its coordinates are 32.018863°, -103.691442°. The release addressed in this report occurred from a clean brine frac tank that was located on the well lease pad (the Site).

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Attachment A), on July 19, 2014 a release was discovered at the clean brine frac tank located at the Wilder Federal #29-5H well. The onsite supervisor was notified of significant standing water in the tank's secondary "Muscle Wall" and poly-liner containment, as well as moist ground in an arched pattern in front of the secondary containment. Investigation revealed the cause of the release was a 4-inch hose that was not plugged off, and it is believed that the valve, and the hose it connected to it, was the source of the leak.

The total volume of the release into secondary containment was estimated at approximately 20 barrels (bbls) of brine water. Approximately 5 to 10 bbls of the brine water leaked through one or more tears in the secondary containment's poly-liner, saturating the soil outside of the secondary containment. The affected area under and around the secondary containment was estimated at 800 square feet (ft) and was contained within a dirt berm tertiary containment on the lease pad. During the initial response actions, a vacuum truck was called to remove the standing water from inside the secondary containment, estimated between 10 and 15 bbls. The New Mexico Oil Conservation District (NMOCD) was notified of the release on July 21, 2014, and subsequently assigned the Site the Remediation Permit (RP) number 1RP-3216.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, public or private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. However, the Site is located in an area of high karst potential.

Based on data from the New Mexico Office of the State Engineer (NMOSE), there are no water wells located in the PLSS section where the Site is located. Based on data from all sections within the township and range, the average depth to groundwater is 239 ft. The site characterization data is shown in Attachment B.

Bradford Billings
NMOCD
June 17, 2020

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 high potential for karst at the Site, the proposed RRALs for the Site are as follows:

Constituent	RRAL
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg

SITE ASESSMENT ACTIVITIES

According to the C-141, the release footprint on the ground surface was estimated to be approximately 800 square feet. The C-141 stated that remediation would begin as soon as work on location ended. According to the NMOCD well files, the well was ready to produce January 14, 2015. On February 1, 2015, two soil samples were collected from the release area footprint and submitted to Xenco Laboratories in Odessa, Texas to be analyzed for chloride via EPA Method 300 and TPH via EPA Method SW8015 Mod. A copy of the analytical report is included as Attachment C.

The analytical results are summarized in Table 1. Analytical results associated with both soil samples were below the respective RRALs listed in Table 1 of the NMOCD Spill Rule (19.15.29 NMAC), and no further remediation occurred at the Site.

At the request of COP, Tetra Tech personnel conducted a visual Site Assessment in May 2020 to evaluate current conditions at the Site. The entire well pad location was inspected and an area matching the description in the C-141 was identified as the formerly impacted area. Photographic documentation from the visual assessment is included as Attachment D. A list of field observations describing the Site follow:

- The clean brine frac tank has been removed from the well pad.
- No staining was noted in the vicinity of the approximate release point.

CONCLUSION

Based on review of laboratory analytical results, and the visual Site Assessment at the Site, COP respectfully requests closure for this release. The final C-141 form is enclosed in Attachment A.

Should you have any questions or comments regarding this report, please do not hesitate to contact me by telephone at 512-338-2861 or by email at christian.llull@tetratech.com.

Sincerely,

Christian M. Llull
Project Manager
Tetra Tech, Inc.

FIGURES

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\FIGURE 1 SITE LOCATION_1RP3216.MXD

TETRA TECH

www.tetratech.com

901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

CONOCOPHILLIPS

1RP-3216
32.018863, -103.691442
LEA COUNTY, NEW MEXICO

WILDER 29 FEDERAL #005H FRAC TANK RELEASE SITE LOCATION MAP

PROJECT NO.:	212C-MD-01796-20
DATE:	JUNE 08, 2020
DESIGNED BY:	AAM

Figure No.

1

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
SITE ASSESSMENT
WILDER FEDERAL #29-5H FRAC TANK RELEASE
LEA COUNTY, NM
1RP-3216

Sample ID	Matrix	Sample Date	Chloride[1]	TPH[3]			
				GRO (C_6 - C_{12})	DRO (C_{10} - C_{28})	ORO (C_{28} - C_{40})	TPH (C_3 - C_{40})
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
#1	Soil	02/01/15	83	21.2	21	-	42.2
#2	Soil	02/01/15	253.0	17.9	31	-	48.9

NOTES:

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

ATTACHMENT A
C-141 Forms

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: CONOCO Phillips	Contact: Jeff M. English
Address:	Telephone No.: (432) 688-6862
Facility Name: Wilder Federal #29-5H	Facility Type: Well Site

Surface Owner	Mineral Owner	API No.: 30-025-41509

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
NENE	29	T26S	R32E	660'	North	850'	East	Lea

Latitude 32.01896 N Longitude -103.691382 W

NATURE OF RELEASE

Type of Release: Brine Water	Volume of Release: est 20bbls	Volume Recovered: est. 10-15 bbls
Source of Release: "Frac" tank	Date and Hour of Occurrence: 19-July-2014, 08:00hrs	Date and Hour of Discovery: 19-July-2014, 09:00hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Jim Amos of BLM and Dr. Tomas Oberding of NMOCD	
By Whom? Jeff English, CONOCO HSE Coordinator	Date and Hour: 21-July-2014, 09:45hrs.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* -NA

HOBBS OCD

AUG 7 2014

RECEIVED

Describe Cause of Problem and Remedial Action Taken.*

On July 19, 2014 at 9:00 A.M. supervisor notified there was significant standing water in the clean-brine tank secondary containment and moist ground in an arched pattern in front of the secondary containment, which was itself inside another dirt berm (tertiary Containment) beyond the Secondary "muscle wall" and poly-liner containment. A vacuum truck was called to remove the remainder of the standing water that could be removed from inside the secondary containment. Investigation revealed the cause and mechanism of the spill was an unseen hole/tear in the poly-liner containment. It was found that one end of a 4" hose was not plugged off and it is believed that the valve, and the hose it connected to it, was the source of the leak. Estimate of spill into containment was 20BBLs. Unknown quantity leaking through the holes in the secondary containment. The vacuum truck is estimated to have collected between 10 and 15 barrels of brine water with estimates for the brine water leaking through the holes in the secondary containment being 5-10BBLs.

Describe Area Affected and Cleanup Action Taken.*

Initially a vacuum truck was called to remove the remainder of the standing water that could be removed from inside the secondary containment. The area of ground affected beneath the secondary containment is estimated to be ~800 sq-ft. Remediation will begin as soon as work on location ends.

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: Jeff English	OIL CONSERVATION DIVISION
Printed Name: Jeff M. English	Approved by Environmental Specialist:

AUG 08 2014

Title: CONOCO HSE Coordinator	Approval Date: 8-7-14	Expiration Date: 10-9-14
E-mail Address: jeff.english@contractor.conocophillips.com	Conditions of Approval:	Attached ☐
Date: 7-August-2014 Phone: (505) 658-0051	Site Supervisor required Delineate & remediate area as per NMOCD guidelines. Submit Final C-141 by 10-9-14	IRP-3216 ogrid 217817 RTO 1421 95 2242 PTO 1421 95 2485

* Attach Additional Sheets If Necessary

HOBBS OCD

AUG 7 2014

RECEIVED

State of New Mexico
Oil Conservation Division

Incident ID	nto1421952242
District RP	1RP-3216
Facility ID	
Application ID	

Closure

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

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

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

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

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

☑ Description of remediation activities

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

Printed Name: Charles R. Beauvais II Title: Environmental Coordinator

Signature: Charles R. Beauvais II Date: 6/16/2020

email: charles.r.beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Brittany Hall Date: 4/17/2023

Printed Name: Brittany Hall Title: Environmental Specialist

ATTACHMENT 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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02271	R	CUB	LE		2	3	21	26S	32E	624449	3544111*	150	125	25
C 02271 POD2		CUB	LE	3	2	3	21	26S	32E	624348	3544010*	270	250	20
C 02274		CUB	LE	2	1	2	31	26S	32E	621742	3541730*	300	295	5
C 02323		C	LE	3	2	3	21	26S	32E	624348	3544010*	405	405	0
C 03537 POD1		CUB	LE	3	2	3	21	26S	32E	624250	3543985	850		
C 03595 POD1		CUB	LE	4	2	3	21	26S	32E	624423	3544045	280	180	100
C 03829 POD1		CUB	LE	3	3	1	06	26S	32E	620628	3549186	646	350	296
C 04209 POD1		CUB	LE	2	3	3	06	26S	32E	620903	3548619	360	155	205
C 04209 POD2		C	LE	2	3	3	06	26S	32E	620818	3548657	340	155	185

Average Depth to Water: **239 feet**

Minimum Depth: **125 feet**

Maximum Depth: **405 feet**

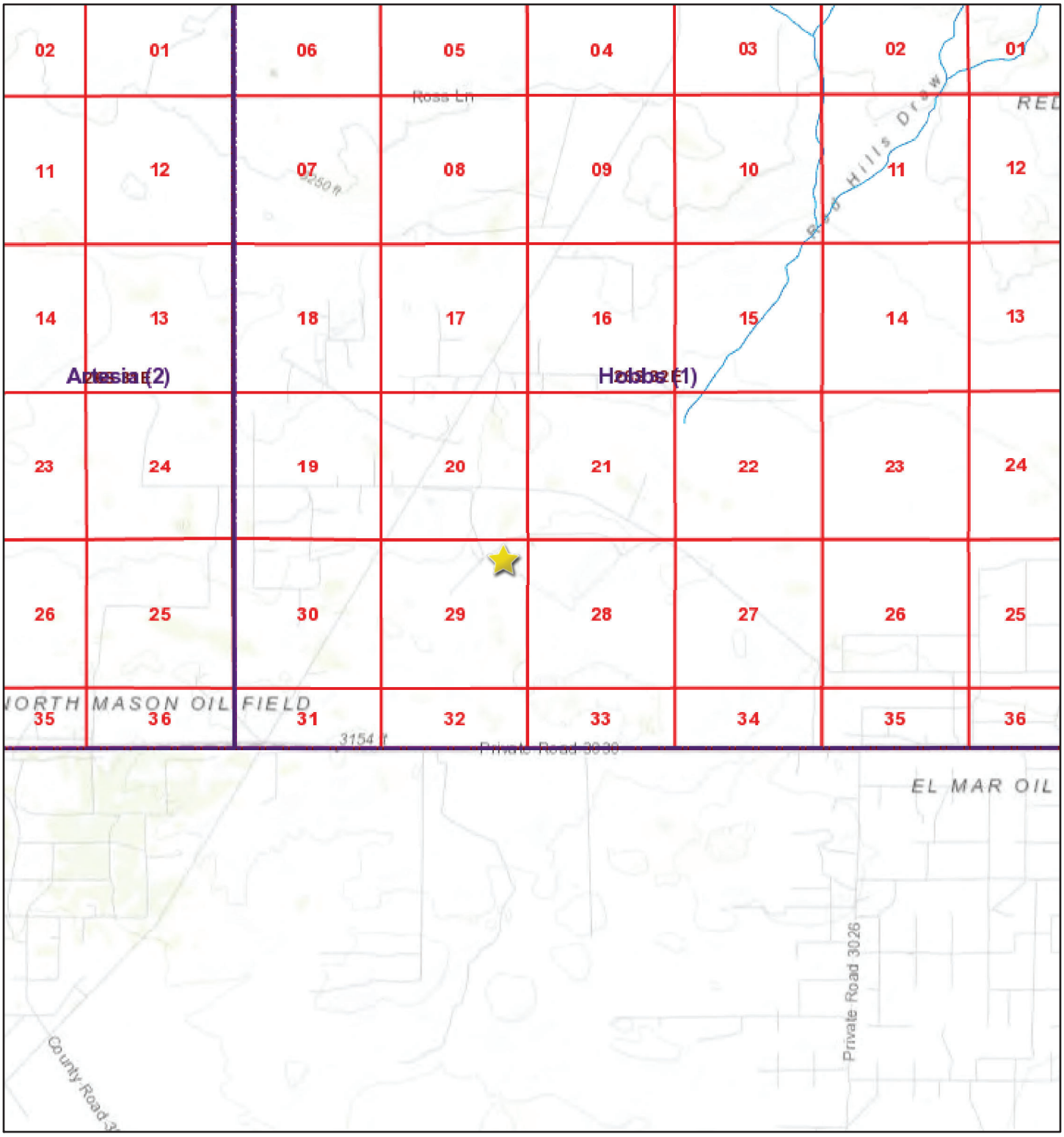
Record Count: 9

PLSS Search:

Township: 26S **Range:** 32E

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

Water Bodies



4/27/2020, 10:26:16 AM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

- Override 1
- OCD Districts
- OCD District Offices
- PLSS First Division
- PLSS Townships
- OSE Water-bodies
- PLJV Probable Playas
- OSE Streams

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, OCD, BLM

New Mexico Oil Conservation Division

Karst Potential

Wilder Federal #29-5H
1RP-3216

Legend

- 32.01896, -103.691382
- High
- Low
- Medium

32.01896, -103.691382

ATTACHMENT C
Laboratory Analytical Report

Analytical Report 501860

for

Conoco Phillips-Midland

Project Manager: Dave Williamson

Wilder Federal 29-5H

26-FEB-15

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-18), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

XENCO Laboratories

26-FEB-15

Project Manager: **Dave Williamson**
Conoco Phillips-Midland
3300 North A Street
Midland, TX 79705

Reference: XENCO Report No(s): **501860**
Wilder Federal 29-5H
Project Address:

Dave Williamson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 501860. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 501860 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

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Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

Sample Cross Reference 501860

Conoco Phillips-Midland, Midland, TX

Wilder Federal 29-5H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
#1	S	02-01-15 12:00		501860-001
#2	S	02-01-15 12:00		501860-002

CASE NARRATIVE

Client Name: Conoco Phillips-Midland
Project Name: Wilder Federal 29-5H

Project ID:
Work Order Number(s): *501860*

Report Date: *26-FEB-15*
Date Received: *02/05/2015*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

XENCO Laboratories

Certificate of Analysis Summary 501860

Conoco Phillips-Midland, Midland, TX

Project Name: Wilder Federal 29-5H

Project Id:
Contact: Dave Williamson
Project Location:

Date Received in Lab: Thu Feb-05-15 01:05 pm
Report Date: 26-FEB-15
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	501860-001		501860-002					
	Field Id:	#1		#2					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Feb-01-15 12:00		Feb-01-15 12:00					
Inorganic Anions by EPA 300/300.1	*Extracted:*	Feb-09-15 14:00		Feb-09-15 14:00					
	Analyzed:	Feb-09-15 23:42		Feb-10-15 00:05					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		83.0	10.7	253	21.7				
Percent Moisture	*Extracted:*								
	Analyzed:	Feb-05-15 17:00		Feb-05-15 17:00					
	Units/RL:	%	RL	%	RL				
Percent Moisture		6.55	1.00	7.78	1.00				
TPH By SW8015 Mod	*Extracted:*	Feb-06-15 07:00		Feb-06-15 07:00					
	Analyzed:	Feb-06-15 11:05		Feb-06-15 11:26					
	Units/RL:	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		21.2	16.1	17.9	16.2				
C12-C28 Diesel Range Hydrocarbons		21.0	16.1	31.0	16.2				
C28-C35 Oil Range Hydrocarbons		ND	16.1	ND	16.2				
Total TPH		42.2	16.1	48.9	16.2				

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

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	Phone	Fax
4143 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: Wilder Federal 29-5H

Work Orders : 501860, 501860 **Project ID:**

Lab Batch #: 961237 **Sample:** 501860-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02/06/15 11:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	55.8	50.0	112	70-135	

Lab Batch #: 961237 **Sample:** 501860-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02/06/15 11:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	99.7	98	70-135	
o-Terphenyl	48.9	49.9	98	70-135	

Lab Batch #: 961237 **Sample:** 668120-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02/06/15 08:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	60.1	50.0	120	70-130	

Lab Batch #: 961237 **Sample:** 668120-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02/06/15 08:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	60.1	50.0	120	70-130	

Lab Batch #: 961237 **Sample:** 668120-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02/06/15 08:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	61.6	50.0	123	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Wilder Federal 29-5H

Work Orders : 501860, 501860 **Project ID:**

Lab Batch #: 961237 **Sample:** 501868-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02/06/15 10:03

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.8	117	70-135	
o-Terphenyl	61.0	49.9	122	70-130	

Lab Batch #: 961237 **Sample:** 501868-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02/06/15 10:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.8	125	70-135	
o-Terphenyl	63.4	49.9	127	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Wilder Federal 29-5H

Work Order #: 501860, 501860 **Project ID:**

Analyst: JUM **Date Prepared:** 02/09/2015 **Date Analyzed:** 02/09/2015

Lab Batch ID: 961449 **Sample:** 688242-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<2.00	40.0	42.7	107	40.0	41.4	104	3	90-110	20	

Analyst: ARM **Date Prepared:** 02/06/2015 **Date Analyzed:** 02/06/2015

Lab Batch ID: 961237 **Sample:** 668120-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	925	93	1000	985	99	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1070	107	1000	1120	112	5	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Wilder Federal 29-5H

Work Order #: 501860

Lab Batch #: 961449 **Project ID:**

Date Analyzed: 02/09/2015 **Date Prepared:** 02/09/2015 **Analyst:** JUM

QC- Sample ID: 501717-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	1110	2000	2470	68	80-120	X

Lab Batch #: 961449

Date Analyzed: 02/09/2015 **Date Prepared:** 02/09/2015 **Analyst:** JUM

QC- Sample ID: 501719-003 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	337	800	1060	90	80-120	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Wilder Federal 29-5H

Work Order # : 501860 **Project ID:**

Lab Batch ID: 961237 **QC- Sample ID:** 501868-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 02/06/2015 **Date Prepared:** 02/06/2015 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	18.3	1080	998	91	1080	1030	94	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<16.2	1080	1120	104	1080	1190	110	6	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Laboratories

Sample Duplicate Recovery

Project Name: Wilder Federal 29-5H

Work Order #: 501860

Lab Batch #: 961239 **Project ID:**

Date Analyzed: 02/05/2015 17:00 **Date Prepared:** 02/05/2015 **Analyst:** WRU

QC- Sample ID: 501854-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	6.94	6.80	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Dave Williamson & Jeff English

Company Name: ConocoPhillips

Company Address: 3300 North A Street

City/State/Zip: Midland, TX 79705

Telephone No: 432-238-6488 / 505-658-0051 Fax No:

Sampler Signature:

e-mail: David.Williamson@contractor.conocophillips.com jeff.english@contractor.conocophillips.com

Project Name: Wilder Federal 29-5H

Project #:

Project Loc: NM

PO #:

Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 501860

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: NP=Non-Potable SL=Sludge GW = Groundwater S=Soil/Solid PW = Produced Water	TPH	Chlorides	Exchangeable Sodium Percentage (ESP)	Sodium Absorption Ratio (SAR)	Electrical Conductivity (EC)	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	#1			2-1-15	12:00		1									Soil	✓	✓		✓			
	#2			2-1-15	12:00		1									Soil	✓	✓		✓			

Analyze For:

Special Instructions: Do not calculate chlorides to balance. Please test.
Bacteria testing needs to be presented in colony forming units. Dilution bottles with accelerant required. 7 day turnaround needed.
Please send me the invoice and I will label it with the proper codes and my signature.

Relinquished by:	Date	Time	Received by:	Date	Time
David Williamson	2-5-15	1:05			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: As Read Corrected °C

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Conoco Phillips-Midland

Date/ Time Received: 02/05/2015 01:05:00 PM

Work Order #: 501860

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

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**N/A**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 02/05/2015

Checklist reviewed by: Date:

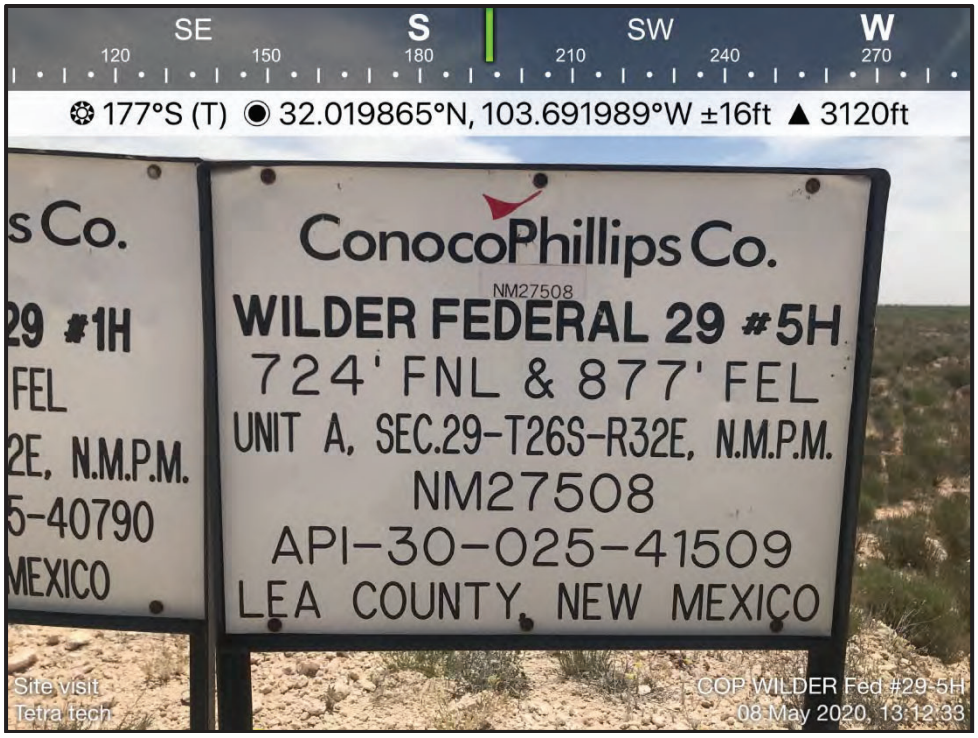
Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

WO#: **15020564**
Date Reported: **2/16/2015**
Company: Xenco Laboratories
Address: 12600 West I-20 East
Odessa TX 79765
Received: 2/6/2015
Project#: 1026194

Client ID#	Lab ID#	Collected	Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
501860-001	001	2/1/2015	Sodium Adsorption Ratio	1.41		Solid	In-House	1		2/12/2015	VVK

Client ID#	Lab ID#	Collected	Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
501860-002	002	2/1/2015	Sodium Adsorption Ratio	2.12		Non-Potable Water	In-House	1		2/12/2015	VVK

ATTACHMENT D
Photographic Documentation



TETRA TECH, INC. PROJECT NO. 212C-MD-01796	DESCRIPTION	View facing south of site signage identification information.	1
	SITE NAME	Wilder Federal 29-5H Frac Tank Release	5/8/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-01796	DESCRIPTION	View facing south-southwest of site well pad and well equipment in background.	2
	SITE NAME	Wilder Federal 29-5H Frac Tank Release	5/8/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-01796	DESCRIPTION	View facing northeast of vicinity of former frac tank location on well pad.	3
	SITE NAME	Wilder Federal 29-5H Frac Tank Release	5/8/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-01796	DESCRIPTION	View facing southwest of wellhead location on well pad.	4
	SITE NAME	Wilder Federal 29-5H Frac Tank Release	5/8/2020

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

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

CONDITIONS

Action 207829

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 207829
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	4/17/2023