



April 19, 2021

District Supervisor
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

**Re: Release Characterization, Remediation and Closure Report
ConocoPhillips
SEMU Permian #015 Stuffing Box Release
Unit Letter L, Section 19, Township 20 South, Range 38 East
Lea County, New Mexico
Incident ID: nAPP2102053788**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred from the stuffing box at the Southeast Monument Unit (SEMU) Permian #015 (API # 30-025-07810) wellhead. The release footprint is located within Public Land Survey System (PLSS) Unit Letter L, Section 19, Township 20 South, Range 38 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.55679°, -103.19431°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the release was discovered on January 19, 2021. As documented on the C-141 form, an unplanned release from equipment failure at the stuffing box resulted in the release of approximately 14 barrels (bbls) of produced water and 2 bbls of crude oil.

The release extent was reported as starting on the developed well pad and spreading into the adjacent pasture to the south. The approximate release extent is shown in Figure 3. No materials were recovered after the release. The C-141 report form for the release was submitted to the New Mexico Oil Conservation District (NMOCD) on March 4, 2021. The NMOCD assigned this release Incident ID nAPP2102053788.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.0029 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within a ½-mile (800-meter) radius of the Site. The radius search was initially expanded to a 1-mile (1600-meter) radius and finally a 2400-meter radius before water wells were located. There are two (2) water wells within a 2400-meter radius with an average depth to groundwater at 84 feet below ground surface (bgs). The site characterization data is included in Appendix B.

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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 Site RRALs for the on-pad areas at the release Site are as follows:

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

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

Constituent	Reclamation Requirements
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg

SITE ASSESSMENT

In order to properly characterize the release footprint and achieve horizontal and vertical delineation of the release extent, Tetra Tech personnel conducted soil sampling for the initial assessment. A total of eight (8) borings were installed within and outside the release footprint using a hand auger on February 24, 2021. Six (6) borings (AH-1 through AH-6) were installed along the perimeter of the release extent to achieve horizontal delineation. Two (2) borings (AH-7 and AH-8) were installed inside the release area footprint to achieve vertical delineation. Atop the caliche pad surface, refusal was met at 6 inches bgs at boring location AH-7. Soil samples collected were field screened for salinity parts per million (ppm) using an ExStik II EC 400 meter. The approximate release extent and boring locations are shown in Figure 3.

A total of eleven (11) samples were collected from the eight (8) boring locations and submitted to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico 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. Photographic documentation of the release extent is included in Appendix D.

SUMMARY OF SAMPLING RESULTS

Results from the February 2021 soil sampling event are summarized in Table 1. The analytical results associated with the boring location AH-7 exceeded the reclamation requirement for chloride (600 mg/kg) and the Site RRAL for TPH (2,500 mg/kg) in the (0'- 0.5') bgs sample interval. Boring location AH-3 exceeded the reclamation requirement for TPH (100 mg/kg) in the (0'- 1') bgs sample interval. Analytical results associated with boring location AH-8 exceeded the reclamation requirements for BTEX (50 mg/kg) and/or TPH (100 mg/kg) down to depth of 3 feet bgs. There were no other analytical results which exceeded the Site RRALs or reclamation requirements in samples collected during the February 2021 soil assessment. After review of the analytical results from the sampling event, both horizontal and vertical delineation was achieved following the February 2021 soil assessment activities.

REMEDIATION ACTIVITIES AND CONFIRMATION SAMPLING

In accordance with 19.15.29.12 B (2) NMAC, COP elected to begin remediation of the impacted area in March 2021. Based on the analytical results from the soil assessment, impacted soil atop the caliche pad was excavated to a depth of 1-foot bgs, and impacted soil in the off-pad pasture areas was excavated to depths ranging from 1 to 4 feet bgs. Initial excavation continued until a representative sample from the walls and bottom of the excavation had a field screening value inferred as lower than the RRALs for the Site. Each confirmation sample laboratory analytical result was directly compared to the proposed RRALs and/or reclamation requirements to demonstrate compliance.

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips conducted confirmation sampling of the remediated area for verification of remedial activities where each sidewall and floor sample was representative of approximately 200 square feet. Confirmation sidewall (SW) sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations are labeled with either "FLOOR-#" or "FL-#". Selected areas required additional excavation to collect a representative sample that was below the respective RRAL for that location. As the analytical results associated with these sample locations exceeded the respective RRAL, additional excavation was conducted at those locations until field screening results indicated closure criteria were attained.

Iterative confirmation samples were located to encompass the original sample locations that triggered removal post-additional excavation. If the sidewall area was expanded due to unacceptable confirmation sample results, the parentheses indicate the expansion iteration. For floor samples, the parentheses indicate the excavation floor depth from which the sample was collected. Excavated areas, depths and confirmation sample locations are shown in Figure 4.

Initial analytical results associated with confirmation floor samples Floor-7 and Floor-8 (on and off-pad areas) exceeded the reclamation requirements. Thus, the excavation floor was deepened to 4 feet bgs in these areas and additional floor samples were collected. Analytical results from confirmation sidewall sample locations WSW-2 and SSW-1 (off-pad areas) exceeded the reclamation requirements and necessitated expansion to the west and south, respectively. Iterative confirmation samples were collected after expansion of the excavation walls in these areas. At on-pad sidewall location NSW-2, analytical results exceeded the remediation RRAL for TPH. The sidewall was expanded to the north, and an additional sidewall sample (NSW-2 (4')) was collected. Analytical results associated with this on-pad location were below the remediation RRALs for TPH. Approximately 300 cubic yards of excavated material were transported to the R360 facility in Hobbs, New Mexico. Copies of the waste manifests are included in Appendix E.

A total of fifteen (15) confirmation floor sample locations and twenty-seven (27) confirmation sidewall samples were collected during the remedial activities in March and April 2021. Confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed for TPH, BTEX, and chloride within appropriate holding times by Cardinal. Copies of the laboratory analytical reports and chain-of-custody documentation are included in Appendix C.

Following iterative sampling, all confirmation sidewall and floor sample results were below the 19.15.29.12 NMAC Table I closure criteria. In accordance with 19.15.29.13 (D) NMAC, analytical results for soils collected above 4 feet bgs in the off-pad pasture areas were below reclamation requirements for soil 0-4 feet bgs. Results from the March and April 2021 confirmation sampling events are summarized in Table 2.

The total remediated area encompassed a surface area of approximately 2,700 square feet. The excavated areas were backfilled post-confirmation sample collection and upon receiving analytical results below the applicable RRALs. The impacted surface area occurring on the developed pad at the site was remediated to meet the standards of Table I of 19.15.29.12 NMAC. On-site reclamation and restoration will occur once the well is plugged and operations have ceased at this active well pad.

The backfilled areas in the pasture were seeded to aid in revegetation. The remediated/reclaimed area was seeded in April 2021. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Sandy

Release Characterization, Remediation and Closure Report
April 19, 2021

ConocoPhillips

(S) Sites Seed Mixture was used for seeding and planted in the amount specified in the pounds pure live seed (PLS) per acre.

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.

CONCLUSION

ConocoPhillips has completed remediation at the release site. This final closure report has been submitted within 90 days of discovery of the release. This final closure report details the release characterization and remediation activities and the results of the confirmation sampling. As noted, final on-site reclamation and restoration will occur once the well is plugged and operations have ceased at this active well pad.

If you have any questions concerning the soil assessment, the remediation work, or confirmation sampling for the Site, please call me at (512) 338-2861.

Sincerely,
Tetra Tech, Inc.



Christian M. Llull, P.G.
Project Manager

cc:
Mr. Marvin Soriwei, RMR – ConocoPhillips
Ms. Kelsy Waggaman, GPBU – ConocoPhillips

LIST OF ATTACHMENTS

Figures:

- Figure 1 – Overview Map
- Figure 2 – Site Location/Topographic Map
- Figure 3 – Approximate Release Extent and Initial Assessment
- Figure 4 – Remedial Activities and Confirmation Sampling Locations

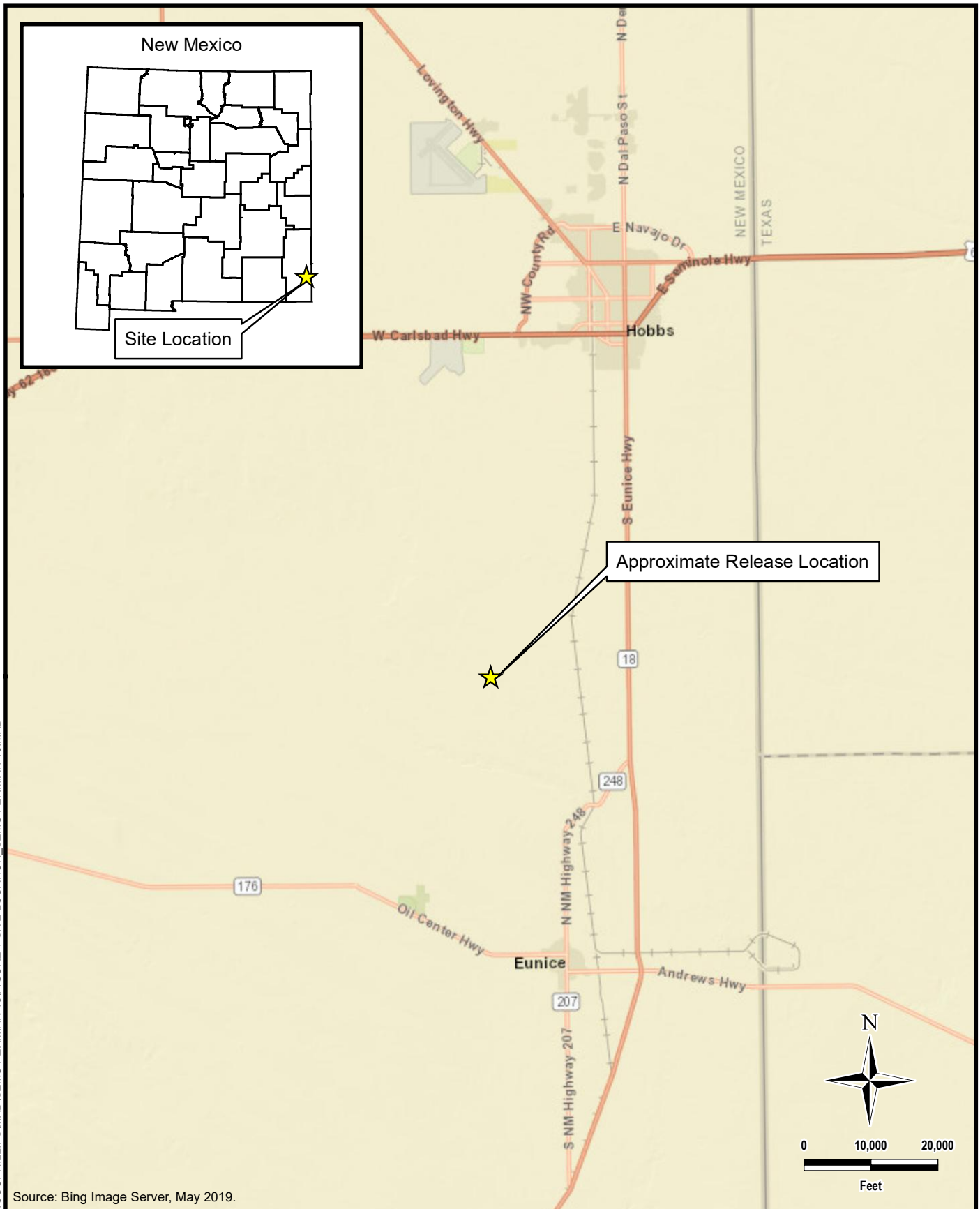
Tables:

- Table 1 – Summary of Analytical Results – Soil Assessment
- Table 2 – Summary of Analytical Results – Confirmation Sampling

Appendices:

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

FIGURES



DOCUMENT PATH: D:\CONOCOPHILLIPS\SEMUM PERMAN 15\FIGURE 1 SITE LOCATION - SEMU PERMAN 15.MXD



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LEA COUNTY, NEW MEXICO

**SEMUM PERMAN #015 STUFFING BOX RELEASE
SITE LOCATION MAP**

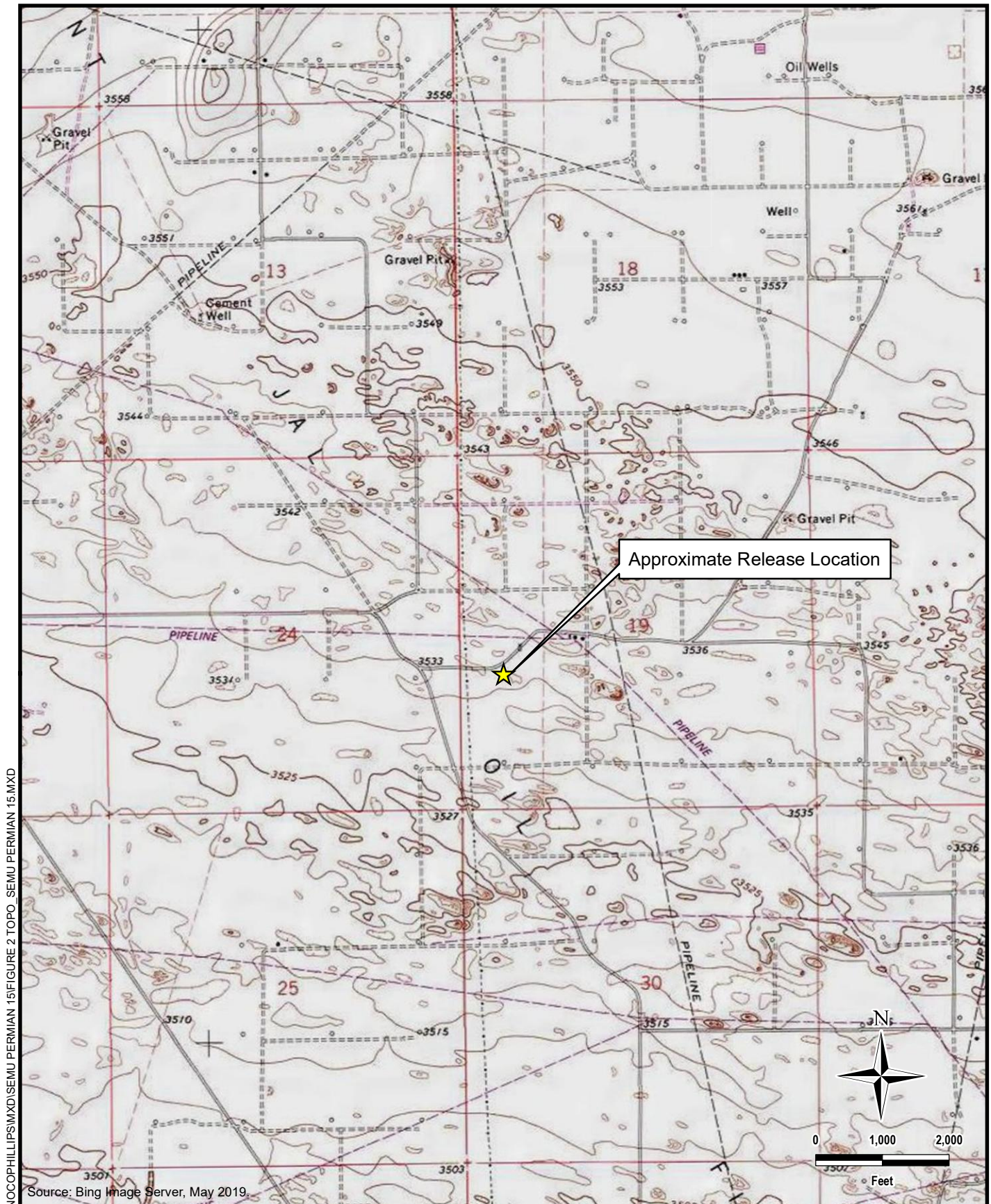
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DATE: APRIL 13, 2021

DESIGNED BY: AAM

Figure No.

1



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 LEA COUNTY, NEW MEXICO

SEMU PERMAN #015 STUFFING BOX RELEASE TOPOGRAPHIC MAP

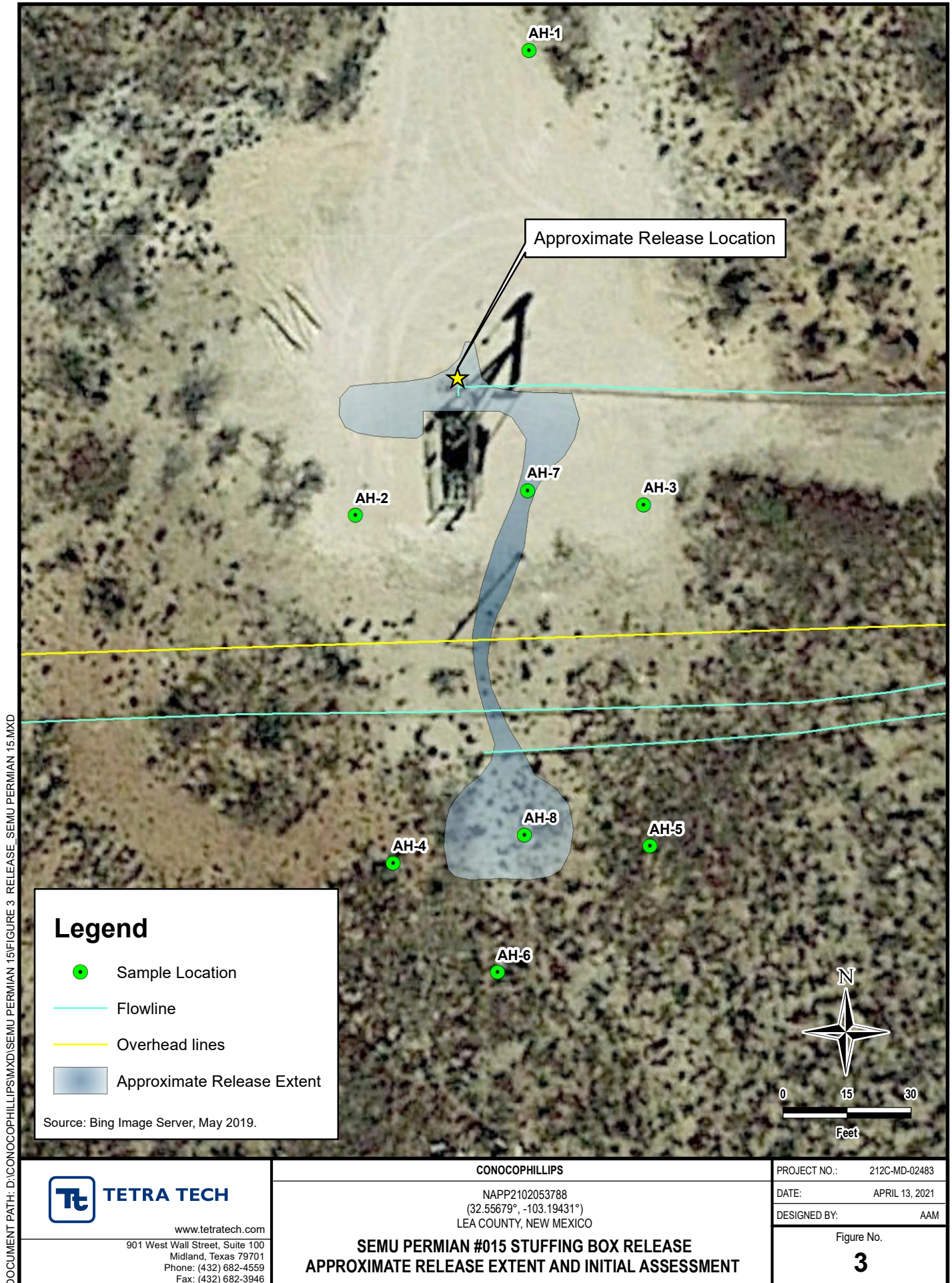
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DATE: APRIL 13, 2021

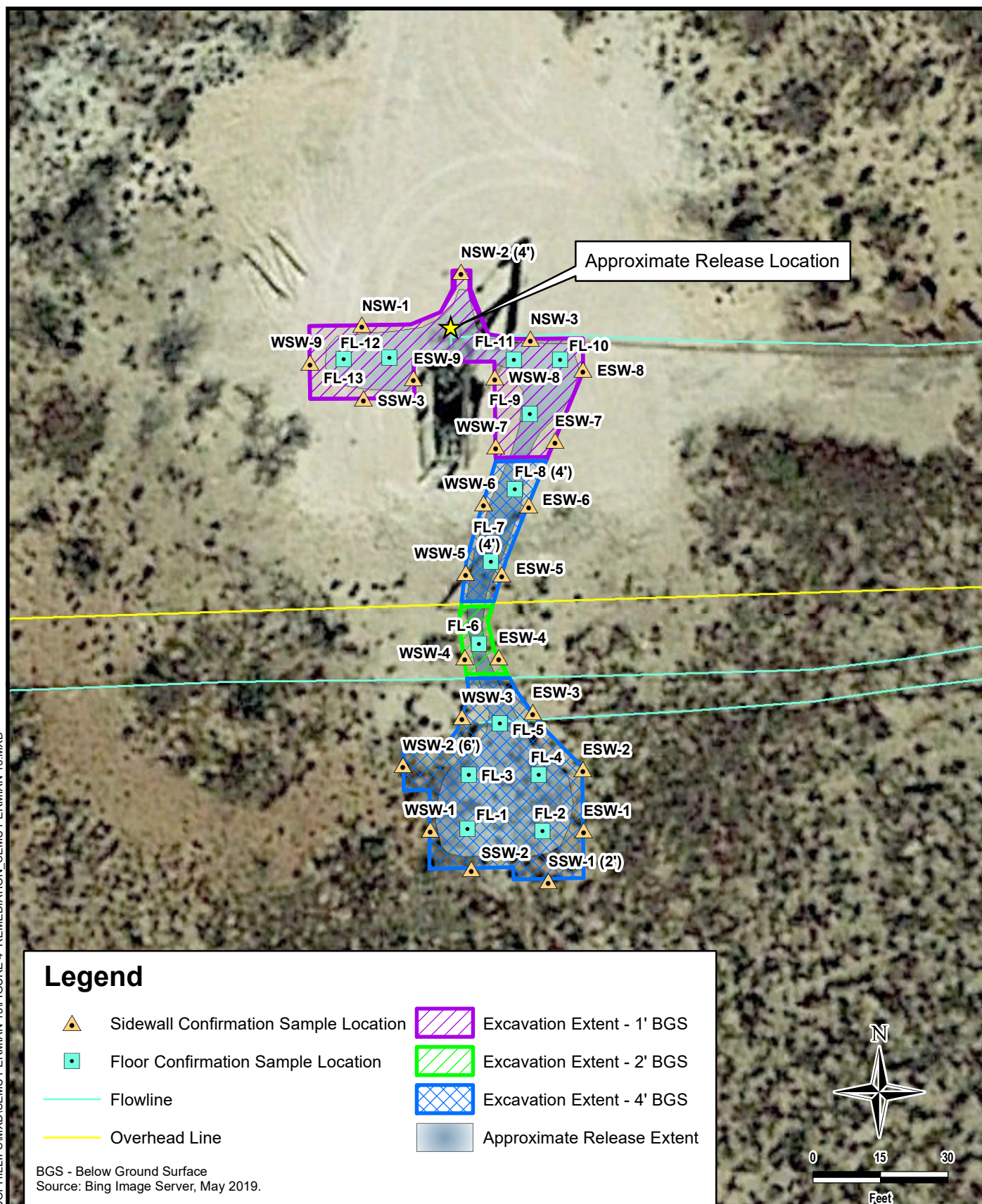
DESIGNED BY: AAM

Figure No.

2



DOCUMENT PATH: D:\CONOCOPHILLIPS\SEMUPERMIAN 15\FIGURE 4 REMEDIATION SEMU PERMIAN 15.MXD

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**SEMUPERMIAN #015 STUFFING BOX RELEASE
REMEDATION EXTENT AND CONFIRMATION SAMPLING LOCATIONS**

PROJECT NO.: 212C-MD-02483

DATE: APRIL 14, 2021

DESIGNED BY: AAM

Figure No.

4

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT - NAPP2102053788
CONOCOPHILLIPS
SEMU PERMIAN #015 STUFFING BOX RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results	Chloride ¹		BTX ²										TPH ³							
			Chloride			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTX		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)	
						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
		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	
AH-1	2/24/2021	0-0.5	105	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
AH-2	2/24/2021	0-1	37.8	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
AH-3	2/24/2021	0-1	31.8	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 50.0		133		124		257	
AH-4	2/24/2021	0-1	38.6	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
AH-5	2/24/2021	0-1	109	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
AH-6	2/24/2021	0-1	57.6	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	
AH-7	2/24/2021	0-0.5	-	7,040		< 0.050		0.219		3.09		12.6		15.9		495		12,100		2,380		14,975	
AH-8	2/24/2021	0-1	-	576		10.5		125		121		263		521		6,020		19,100		3,700		28,820	
		1-2	-	32.0		< 0.050		3.34		6.54		16.6		26.5		311		1,230		315		1,856	
		2-3	-	192		< 0.050		0.275		0.815		2.34		3.43		53.9		562		136		752	
		3-4	29.7	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-	

NOTES:

ft. Feet

Bold and italicized values indicate exceedance of proposed RRALs

bgs Below ground surface

ppm Parts per million

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 EPA Method 8021B

3 EPA Method 8015M

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL REMEDIATION - NAPP2102053788
CONOCOPHILLIPS
SEMU PERMIAN #015 STUFFING BOX RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride ¹		BTEX ²										TPH ³						
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO C ₆ - C ₁₀		DRO > C ₁₀ - C ₂₈		EXT DRO > C ₂₈ - C ₃₆		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		
Floor-1	3/30/2021	4	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-2	3/30/2021	4	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-3	3/30/2021	4	1,890		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		17.0		< 10.0		17.0
Floor-4	3/30/2021	4	528		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		141		16.2		157
Floor-5	3/30/2021	4	1,790		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-6	3/30/2021	2	272		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-7	3/30/2021	2	624		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-7 (4")*	4/13/2021	4	1,310		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-8	3/30/2021	1	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		9,400		3,590		12,990
Floor-8 (4")*	4/13/2021	4	752		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-9	3/30/2021	1	960		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-10	3/30/2021	1	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-11	3/30/2021	1	896		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		71.5		17.8		89.3
Floor-12	3/30/2021	1	288		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		30.5		< 10.0		30.5
Floor-13	3/30/2021	1	208		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
NSW-1	3/30/2021	-	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
NSW-2	3/30/2021	-	432		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		1,660		943		2,603
NSW-2 (4")*	4/13/2021	-	576		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		209		80.7		290
NSW-3	3/30/2021	-	144		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-1	3/30/2021	-	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		21.2		< 10.0		21.2
ESW-2	3/30/2021	-	368		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-3	3/30/2021	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-4	3/30/2021	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-5	3/30/2021	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-6	3/30/2021	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-7	3/30/2021	-	176		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-8	3/30/2021	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-9	3/30/2021	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SSW-1	3/30/2021	-	1,040		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SSW-1 (2")*	4/13/2021	-	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SSW-2	3/30/2021	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SSW-3	3/30/2021	-	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
WSW-1	3/30/2021	-	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-2	3/30/2021	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		45.8		62.4		108
WSW-2 (6")*	4/13/2021	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-3	3/30/2021	-	352		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-4	3/30/2021	-	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-5	3/30/2021	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-6	3/30/2021	-	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-7	3/30/2021	-	496		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-8	3/30/2021	-	128		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		< 10.0
WSW-9	3/30/2021	-	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 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 SM4500C1-B

2 EPA Method 8021B

3 EPA Method 8015M

Bold and italicized values indicate exceedance of proposed RRLs

Gold highlight represents soil horizons that were removed during deepening of excavation floors.

Green highlight represents soil intervals that were removed during horizontal expansion of excavation sidewalls.

* These iterative samples are located to encompass the original sample location that triggered removal, with further excavation in each area indicated in ().

APPENDIX A C-141 Forms

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2102053788
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	ConocoPhillips Company	OGRID	217817
Contact Name	Kelsy Waggaman	Contact Telephone	505-577-9071
Contact email	kelsy.waggaman@conocophillips.com	Incident # (assigned by OCD)	nAPP2102053788
Contact mailing address	29 Vacuum Complex Lane, Lovington, NM 88260		

Location of Release Source

Latitude 32.5567894 Longitude-103.1943054
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	SEMU PERMIAN #015	Site Type	Well pad, on and off location
Date Release Discovered	1/19/2021	API# (if applicable):	30-025-07810

Unit Letter	Section	Township	Range	County
L	19	20S	38E	Lea

Surface Owner: State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	2 Barrels	Volume Recovered (bbls)	0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	14 Bbls	Volume Recovered (bbls)	0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

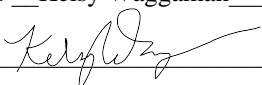
Cause of Release - Equipment Failure, Stuffing Box Leak

Incident ID	NAPP2102053788
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kelsy Waggaman</u> Title: Environmental Coordinator
Signature: <u></u> Date: <u>3/4/21</u>
email: <u>kelsy.waggaman@conocophillips.com</u> Telephone: <u>505-577-9071</u>
<u>OCD Only</u>
Received by: <u>Ramona Marcus</u> Date: <u>3/22/2021</u>

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature:  Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

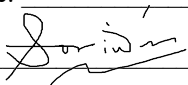
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

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

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

Printed Name: _____ Title: _____
Signature:  _____ Date: _____
email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature:  Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by:  Date: _____

Printed Name: _____ Title: _____






APPENDIX B

Site Characterization Data

Appendix B - Karst Potential Map

COP SEMU Permian 15 Wellhead Release

Legend

-  (32.556786°, -103.194311°)
-  CRIT
-  HIGH
-  LOW
-  MEDIUM

41

Monument

8

(32.556786°, -103.194311°)



S Eunice Hwy

118

176

Ave O

Eunice

234

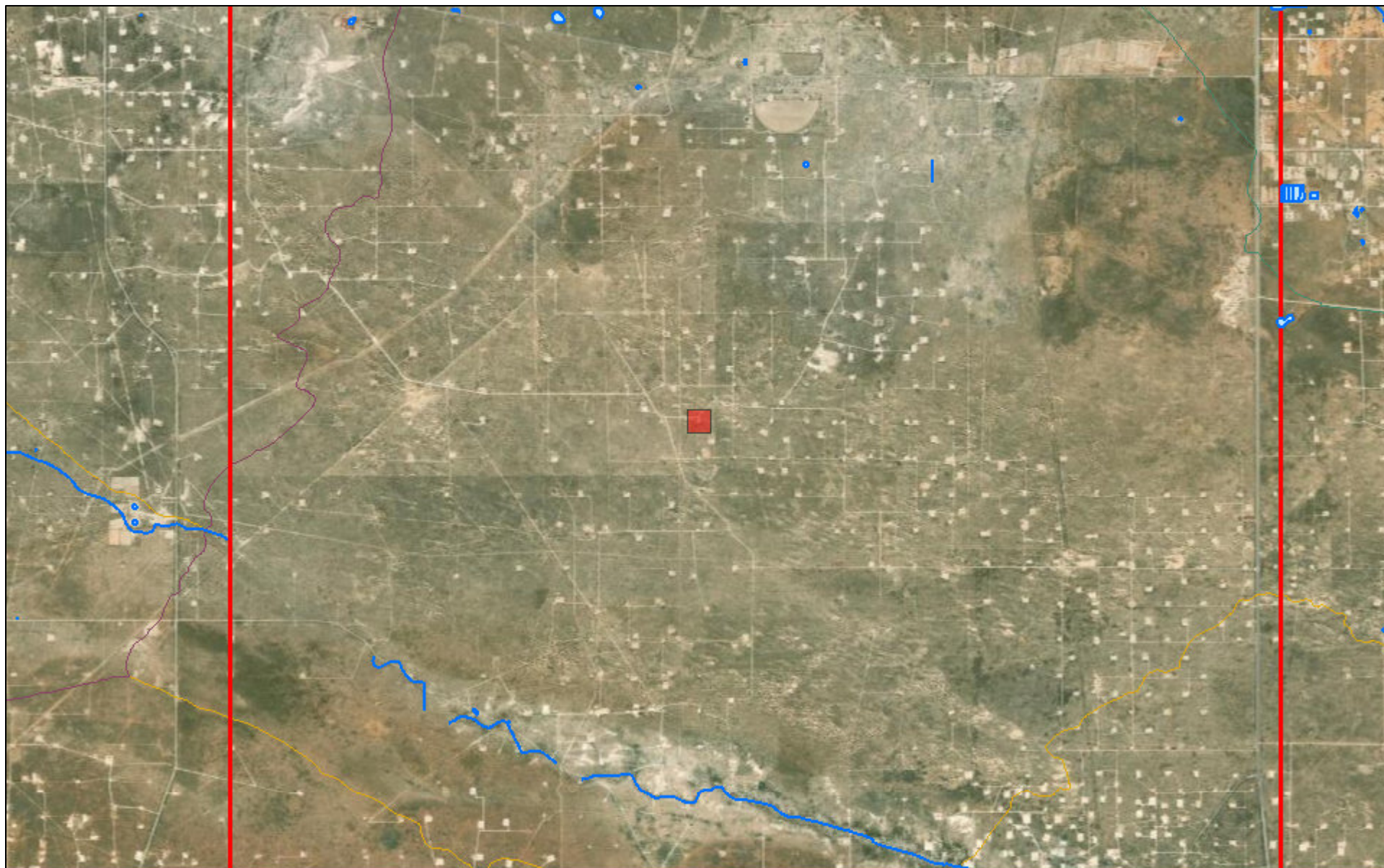
87

8 mi

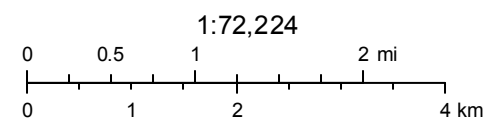


Google Earth

New Mexico NFHL Data



March 4, 2021



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 669530.752

Northing (Y): 3603586.517

Radius: 800

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/4/21 2:35 PM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 669530.752

Northing (Y): 3603586.517

Radius: 1600

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/4/21 2:36 PM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 04412 S	L	LE		4	4	2	13	20S	37E	669189	3605491*	1934	155	84	71
L 04412	L	LE		4	2	2	13	20S	37E	669181	3605894*	2333	140	85	55

Average Depth to Water: **84 feet**

Minimum Depth: **84 feet**

Maximum Depth: **85 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 669530.752

Northing (Y): 3603586.517

Radius: 2400

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/4/21 2:37 PM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER

APPENDIX C

Laboratory Analytical Data



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

February 26, 2021

JOE TYLER

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: SEMU PERMIAN 15

Enclosed are the results of analyses for samples received by the laboratory on 02/24/21 15:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received:	02/24/2021	Sampling Date:	02/24/2021
Reported:	02/26/2021	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 15	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02377	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

Sample ID: AH - 1 (0-0.5') (H210456-01)

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	02/25/2021	ND	2.14	107	2.00	6.67	
Toluene*	<0.050	0.050	02/25/2021	ND	2.12	106	2.00	6.38	
Ethylbenzene*	<0.050	0.050	02/25/2021	ND	2.05	102	2.00	6.98	
Total Xylenes*	<0.150	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54	
Total BTEX	<0.300	0.300	02/25/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2021	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	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	<10.0	10.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	<10.0	10.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 2 (0-1') (H210456-02)

BTX 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	02/25/2021	ND	2.14	107	2.00	6.67	
Toluene*	<0.050	0.050	02/25/2021	ND	2.12	106	2.00	6.38	
Ethylbenzene*	<0.050	0.050	02/25/2021	ND	2.05	102	2.00	6.98	
Total Xylenes*	<0.150	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54	
Total BTX	<0.300	0.300	02/25/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2021	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	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	<10.0	10.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	<10.0	10.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 107 % 44.3-144

Surrogate: 1-Chlorooctadecane 114 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 3 (0-1') (H210456-03)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2021	ND	2.14	107	2.00	6.67		
Toluene*	<0.050	0.050	02/25/2021	ND	2.12	106	2.00	6.38		
Ethylbenzene*	<0.050	0.050	02/25/2021	ND	2.05	102	2.00	6.98		
Total Xylenes*	<0.150	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54		
Total BTEX	<0.300	0.300	02/25/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2021	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*	<50.0	50.0	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	133	50.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	124	50.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 99.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 4 (0-1') (H210456-04)

BTX 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	02/25/2021	ND	2.14	107	2.00	6.67		
Toluene*	<0.050	0.050	02/25/2021	ND	2.12	106	2.00	6.38		
Ethylbenzene*	<0.050	0.050	02/25/2021	ND	2.05	102	2.00	6.98		
Total Xylenes*	<0.150	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54		
Total BTX	<0.300	0.300	02/25/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2021	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	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	<10.0	10.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	<10.0	10.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 5 (0-1') (H210456-05)

BTX 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	02/25/2021	ND	2.14	107	2.00	6.67		
Toluene*	<0.050	0.050	02/25/2021	ND	2.12	106	2.00	6.38		
Ethylbenzene*	<0.050	0.050	02/25/2021	ND	2.05	102	2.00	6.98		
Total Xylenes*	<0.150	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54		
Total BTX	<0.300	0.300	02/25/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2021	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	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	<10.0	10.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	<10.0	10.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 6 (0-1') (H210456-06)

BTX 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	02/25/2021	ND	2.14	107	2.00	6.67	
Toluene*	<0.050	0.050	02/25/2021	ND	2.12	106	2.00	6.38	
Ethylbenzene*	<0.050	0.050	02/25/2021	ND	2.05	102	2.00	6.98	
Total Xylenes*	<0.150	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54	
Total BTX	<0.300	0.300	02/25/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2021	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	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	<10.0	10.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	<10.0	10.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 7 (0-0.5') (H210456-07)

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2021	ND	2.14	107	2.00	6.67	
Toluene*	0.219	0.050	02/25/2021	ND	2.12	106	2.00	6.38	
Ethylbenzene*	3.09	0.050	02/25/2021	ND	2.05	102	2.00	6.98	
Total Xylenes*	12.6	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54	
Total BTX	15.9	0.300	02/25/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 264 % 73.3-129

Chloride, SM4500CI-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7040	16.0	02/25/2021	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*	495	50.0	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	12100	50.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	2380	50.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 188 % 44.3-144

Surrogate: 1-Chlorooctadecane 420 % 42.2-156

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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 8 (0-1') (H210456-08)

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	10.5	1.00	02/25/2021	ND	2.14	107	2.00	6.67	
Toluene*	125	1.00	02/25/2021	ND	2.12	106	2.00	6.38	
Ethylbenzene*	121	1.00	02/25/2021	ND	2.05	102	2.00	6.98	
Total Xylenes*	263	3.00	02/25/2021	ND	5.97	99.5	6.00	6.54	
Total BTEX	521	6.00	02/25/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 147 % 73.3-129

Chloride, SM4500Cl-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	02/25/2021	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*	6020	100	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	19100	100	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	3700	100	02/25/2021	ND					

Surrogate: 1-Chlorooctane 402 % 44.3-144

Surrogate: 1-Chlorooctadecane 526 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 8 (1'-2') (H210456-09)

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2021	ND	2.14	107	2.00	6.67	
Toluene*	3.34	0.050	02/25/2021	ND	2.12	106	2.00	6.38	
Ethylbenzene*	6.54	0.050	02/25/2021	ND	2.05	102	2.00	6.98	
Total Xylenes*	16.6	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54	
Total BTX	26.5	0.300	02/25/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 193 % 73.3-129

Chloride, SM4500CI-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/25/2021	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*	311	50.0	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	1230	50.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	315	50.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 131 % 44.3-144

Surrogate: 1-Chlorooctadecane 139 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 8 (2'-3') (H210456-10)

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	02/25/2021	ND	2.14	107	2.00	6.67	
Toluene*	0.275	0.050	02/25/2021	ND	2.12	106	2.00	6.38	
Ethylbenzene*	0.815	0.050	02/25/2021	ND	2.05	102	2.00	6.98	
Total Xylenes*	2.34	0.150	02/25/2021	ND	5.97	99.5	6.00	6.54	
Total BTEX	3.43	0.300	02/25/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	02/25/2021	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*	53.9	50.0	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	562	50.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	136	50.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 121 % 44.3-144

Surrogate: 1-Chlorooctadecane 132 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 02/24/2021
 Reported: 02/26/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 02/24/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: AH - 8 (3'-4') (H210456-11)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2021	ND	2.23	111	2.00	9.21		
Toluene*	<0.050	0.050	02/26/2021	ND	2.20	110	2.00	9.46		
Ethylbenzene*	<0.050	0.050	02/26/2021	ND	2.14	107	2.00	9.79		
Total Xylenes*	<0.150	0.150	02/26/2021	ND	6.23	104	6.00	9.22		
Total BTEX	<0.300	0.300	02/26/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/25/2021	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	02/25/2021	ND	209	104	200	1.66	
DRO >C10-C28*	<10.0	10.0	02/25/2021	ND	212	106	200	2.62	
EXT DRO >C28-C36	<10.0	10.0	02/25/2021	ND					

Surrogate: 1-Chlorooctane 108 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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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.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

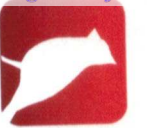
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CARDINAL
Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

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

Conoco Phillips

Project Manager: Joe Tyler w/ Letro Tech

Address:

State: Zip:

Phone #: (432) 210-6952 Fax #:

Project #: 2126-MD-02377 Project Owner:

Project Name: Caraco Phillips SEMU Permian 15

Project Location: SEMLD Permian 15

Sampler Name: Matthew Castiglione

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

Ha210456

KH-1 (B-D.5')

AA-2 (B-1')

AH-3 (8-11)

HH-9 (6-12)

$$\frac{15-7}{1-0} = \frac{8}{1}$$

AH-7 10-6.5

AH-8 (0-1')

AH-8 (1-2)

HH-8 (2-3)

ing those for negligence and any other ca

ing out of or related to the performance of

1

1124

1

: (Circle One)

- Bus - Other:

† Cardinal cannot accept verbal changes. Please fax written changes to 15/31 333-2222.

Dec 01 of 02

Page 14 of 15

Released to Imaging: 6/10/2021 8:16:43 AM



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

April 05, 2021

JOE TYLER

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: SEMU PERMIAN 15

Enclosed are the results of analyses for samples received by the laboratory on 03/30/21 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received:	03/30/2021	Sampling Date:	03/30/2021
Reported:	04/05/2021	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 15	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02377	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

Sample ID: FLOOR - 1 (4') (H210786-01)

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	03/31/2021	ND	2.13	107	2.00	2.60	
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24	
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35	
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27	
Total BTEX	<0.300	0.300	03/31/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: GM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	03/31/2021	ND	416	104	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	210	105	200	7.20	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	206	103	200	1.74	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 83.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 2 (4') (H210786-02)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60	
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24	
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35	
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27	
Total BTX	<0.300	0.300	03/31/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/31/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	210	105	200	7.20	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	206	103	200	1.74	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 78.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 3 (4') (H210786-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60	
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24	
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35	
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27	
Total BTEX	<0.300	0.300	03/31/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1890	16.0	03/31/2021	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	210	105	200	7.20	
DRO >C10-C28*	17.0	10.0	03/31/2021	ND	206	103	200	1.74	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 81.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 4 (4') (H210786-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTEx	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	03/31/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	210	105	200	7.20	
DRO >C10-C28*	141	10.0	03/31/2021	ND	206	103	200	1.74	
EXT DRO >C28-C36	16.2	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 85.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 5 (4') (H210786-05)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1790	16.0	03/31/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	210	105	200	7.20	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	206	103	200	1.74	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 80.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 6 (2') (H210786-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60	
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24	
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35	
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27	
Total BTEx	<0.300	0.300	03/31/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/31/2021	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	210	105	200	7.20	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	206	103	200	1.74	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 82.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 7 (2') (H210786-07)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTEX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	624	16.0	03/31/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	210	105	200	7.20	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	206	103	200	1.74	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 86.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 8 (1') (H210786-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTEx	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	03/31/2021	ND	416	104	400	3.92		

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*	<100	100	03/31/2021	ND	213	106	200	1.35	
DRO >C10-C28*	9400	100	03/31/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	3590	100	03/31/2021	ND					

Surrogate: 1-Chlorooctane 86.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 862 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 9 (1') (H210786-10)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	960	16.0	03/31/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 84.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 10 (1') (H210786-11)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	03/31/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 80.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 11 (1') (H210786-12)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTEX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	896	16.0	03/31/2021	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	71.5	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	17.8	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 79.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 12 (1') (H210786-13)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	30.5	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 82.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FLOOR - 13 (1') (H210786-14)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTEX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/31/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 83.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 1 (H210786-15)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/31/2021	ND	2.13	107	2.00	2.60	
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24	
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35	
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27	
Total BTEx	<0.300	0.300	03/31/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	21.2	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 81.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.4 % 42.2-156

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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 2 (H210786-16)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 84.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 3 (H210786-17)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/31/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 79.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 4 (H210786-18)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 81.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 5 (H210786-19)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60		
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24		
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35		
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27		
Total BTX	<0.300	0.300	03/31/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 80.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 6 (H210786-20)

BTX 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	03/31/2021	ND	2.13	107	2.00	2.60	
Toluene*	<0.050	0.050	03/31/2021	ND	2.09	105	2.00	3.24	
Ethylbenzene*	<0.050	0.050	03/31/2021	ND	2.02	101	2.00	3.35	
Total Xylenes*	<0.150	0.150	03/31/2021	ND	5.94	99.0	6.00	3.27	
Total BTX	<0.300	0.300	03/31/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 79.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 7 (H210786-21)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 79.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 8 (H210786-22)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTX	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 80.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: EAST SW - 9 (H210786-23)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 77.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.0 % 42.2-156

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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 1 (H210786-24)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 80.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 2 (H210786-25)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/05/2021	ND	213	106	200	1.35	
DRO >C10-C28*	45.8	10.0	04/05/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	62.4	10.0	04/05/2021	ND					

Surrogate: 1-Chlorooctane 96.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 3 (H210786-26)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 81.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 4 (H210786-27)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 79.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 5 (H210786-28)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2021	ND	213	106	200	1.35	
DRO >C10-C28*	<10.0	10.0	04/01/2021	ND	219	110	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	04/01/2021	ND					

Surrogate: 1-Chlorooctane 81.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 6 (H210786-29)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 87.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.1 % 42.2-156

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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 7 (H210786-30)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	03/31/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 83.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 81.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 8 (H210786-31)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 88.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WEST SW - 9 (H210786-32)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	03/31/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 85.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.2 % 42.2-156

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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: NORTH SW - 1 (H210786-33)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/31/2021	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	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 82.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 78.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: NORTH SW - 2 (H210786-34)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	03/31/2021	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*	<100	100	04/01/2021	ND	211	106	200	0.259	
DRO >C10-C28*	1660	100	04/01/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	943	100	04/01/2021	ND					

Surrogate: 1-Chlorooctane 92.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 205 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: NORTH SW - 3 (H210786-35)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	03/31/2021	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	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 85.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.6 % 42.2-156

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SOUTH SW - 1 (H210786-36)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1040	16.0	03/31/2021	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	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 78.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 77.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SOUTH SW - 2 (H210786-37)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/31/2021	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	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 80.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs
 JOE TYLER
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

Received: 03/30/2021
 Reported: 04/05/2021
 Project Name: SEMU PERMIAN 15
 Project Number: 212C - MD - 02377
 Project Location: LEA CO NM

Sampling Date: 03/30/2021
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SOUTH SW - 3 (H210786-38)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/01/2021	ND	2.00	99.9	2.00	5.94		
Toluene*	<0.050	0.050	04/01/2021	ND	2.11	105	2.00	5.07		
Ethylbenzene*	<0.050	0.050	04/01/2021	ND	2.08	104	2.00	4.78		
Total Xylenes*	<0.150	0.150	04/01/2021	ND	6.32	105	6.00	5.05		
Total BTEx	<0.300	0.300	04/01/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	03/31/2021	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	03/31/2021	ND	211	106	200	0.259	
DRO >C10-C28*	<10.0	10.0	03/31/2021	ND	226	113	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	03/31/2021	ND					

Surrogate: 1-Chlorooctane 83.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 81.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 01 of 04

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

Company Name: ConocoPhillips										P.O. #:		BILL TO										ANALYSIS REQUEST																			
Project Manager: Joe Tyler with Tetra Tech										Company: ConocoPhillips																															
Address: joe.tyler@tetratech.com										Attn: Brent Sommer																															
City:										Address: Brent W. Sommer																															
Phone #: (432) 210-6952										City: @conocophillips.com																															
Project #: 212C-MD-02377										State: Zip:																															
Project Name: COP SEMU Permian/S Release										Phone #:																															
Project Location: SEMU Permian/S										Fax #:																															
Sample Name: Address										PRESERV		SAMPLING																													
FOR LAB USE ONLY										MATRIX																															
										GROUNDWATER																															
										WASTEWATER																															
										SOIL																															
										OIL																															
										SLUDGE																															
										OTHER :																															
										ACID/BASE:																															
										ICE / COOL																															
										OTHER :																															
Lab I.D.										DATE		TIME																													
Sample I.D.										TPH		BTEX										Chlorides										Hold									
H210786										X		X										X																			
Floor - 1 (4')										X		X										X																			
Floor - 2 (4')										X		X										X																			
Floor - 3 (4')										X		X										X																			
Floor - 4 (4')										X		X										X																			
Floor - 5 (4')										X		X										X																			
Floor - 6 (2')										X		X										X																			
Floor - 7 (2')										X		X										X																			
Floor - 8 (1')										X		X										X																			
Floor - 9 (1')										X		X										X																			
Floor - 9 (1')										X		X										X																			
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Relinquished By: [Signature]										3/20/21		1555																													
Relinquished By: [Signature]										3/20/21		1555																													
Delivered By: (Circle One)										Sample Condition		CHECKED BY: (Initials)																													
Sampler - UPS - Bus - Other:										Cool <input type="checkbox"/> Intact <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>																													
28.26 #113										Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>																													
Brought straight to lab from field																																									



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 03 of 04

Company Name: ConocoPhillips		BILL TO		ANALYSIS REQUEST																
Project Manager: Joe Tyler with Tetra Tech		P.O. #:																		
Address: joe.tyler@tetratech.com		Company: ConocoPhillips																		
City:		Attn: "																		
Phone #: (432) 210-6952		Fax #: NA		Address: "																
Project #: 212C-MD-02377		Project Owner:		City:																
Project Name: COP SEMU Permits 15 Release		State:		Zip:																
Project Location: SEMU Permits 15 Release		Phone #:																		
Sample Name: SEMU		Fax #:																		
FOR LAB USE ONLY																				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV	SAMPLING	DATE	TIME	TPH	BTEX	Chlorides	Hold						
HA10784	FL00-10(1')	G	1				X		3/30		X	X	X							
11	FL00-11(1')																			
12	FL00-12(1')																			
13	FL00-13(1')																			
14	FL00-14(1')																			
15	East SW-1																			
16	East SW-2																			
17	East SW-3																			
18	East SW-4																			
19	East SW-5																			
20	East SW-6																			

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Relinquished By: [Signature] Date: 3-30-21 Received By: [Signature] Date: 3/30

Relinquished By: [Signature] Date: [Blank] Received By: [Signature] Date: [Blank]

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 28.2c #113

Sample Condition: Cool ☒ Intact ☒ Yes ☐ No ☐ Yes ☐ No

CHECKED BY: (Initials) [Signature]

Phone Results: ☐ Yes ☐ No Add'l Phone #: [Blank]

Fax Results: ☐ Yes ☐ No Add'l Fax #: [Blank]

Email Results to: [Blank]

See page 01 of 04

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



CARDINAL
Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 03 of 04

Company Name: ConocoPhillips										BILL TO										ANALYSIS REQUEST									
Project Manager: Joe Tyler with Tetra Tech										P.O. #:																			
Address: joe.tyler@tetratech.com										Company: ConocoPhillips																			
City:										Attn:																			
Phone #: (432) 210-6952										Address:																			
Fax #: NA										City:																			
Project #: 212C-MD-02377										State:																			
Project Name: COP-SEMU Permian 15 Release										Zip:																			
Project Location:										Phone #:																			
Fax #:																													
Sample Name: Adria										PRESERV										SAMPLING									
FOR LAB USE ONLY										MATRIX																			
Lab I.D.										Sample I.D.																			
H210784																													
21 East SW-7										G 1										3/30									
22 East SW-8										X										X									
23 East SW-9																													
24 West SW-1																													
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28 West SW-5																													
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25 West SW-2																													
26 West SW-3																													
27 West SW-4																													



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 04 of 04

[illegible]



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

April 14, 2021

JOE TYLER

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: COP - SEMU PERMIAN 15 WELLHEAD RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 04/13/21 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	04/13/2021	Sampling Date:	04/13/2021
Reported:	04/14/2021	Sampling Type:	Soil
Project Name:	COP - SEMU PERMIAN 15 WELLHEAD RE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02483	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: FL - 7 (4') (H210930-01)

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/13/2021	ND	2.31	116	2.00	1.59	
Toluene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.48	
Ethylbenzene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.76	
Total Xylenes*	<0.150	0.150	04/13/2021	ND	6.47	108	6.00	1.95	
Total BTEX	<0.300	0.300	04/13/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	04/14/2021	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	04/13/2021	ND	208	104	200	0.488	
DRO >C10-C28*	<10.0	10.0	04/13/2021	ND	217	108	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	04/13/2021	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	04/13/2021	Sampling Date:	04/13/2021
Reported:	04/14/2021	Sampling Type:	Soil
Project Name:	COP - SEMU PERMIAN 15 WELLHEAD RE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02483	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: FL - 8 (4') (H210930-02)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/13/2021	ND	2.31	116	2.00	1.59		
Toluene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.76		
Total Xylenes*	<0.150	0.150	04/13/2021	ND	6.47	108	6.00	1.95		
Total BTEx	<0.300	0.300	04/13/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	04/14/2021	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	04/13/2021	ND	208	104	200	0.488	
DRO >C10-C28*	<10.0	10.0	04/13/2021	ND	217	108	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	04/13/2021	ND					

Surrogate: 1-Chlorooctane 93.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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Analytical Results For:

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

Received:	04/13/2021	Sampling Date:	04/13/2021
Reported:	04/14/2021	Sampling Type:	Soil
Project Name:	COP - SEMU PERMIAN 15 WELLHEAD RE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02483	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: NSW - 2 (4') (H210930-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/13/2021	ND	2.31	116	2.00	1.59	
Toluene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.48	
Ethylbenzene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.76	
Total Xylenes*	<0.150	0.150	04/13/2021	ND	6.47	108	6.00	1.95	
Total BTEX	<0.300	0.300	04/13/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	04/14/2021	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	04/14/2021	ND	208	104	200	0.488	
DRO >C10-C28*	209	10.0	04/14/2021	ND	217	108	200	1.30	
EXT DRO >C28-C36	80.7	10.0	04/14/2021	ND					

Surrogate: 1-Chlorooctane 88.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	04/13/2021	Sampling Date:	04/13/2021
Reported:	04/14/2021	Sampling Type:	Soil
Project Name:	COP - SEMU PERMIAN 15 WELLHEAD RE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02483	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SSW - 1 (2') (H210930-04)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/13/2021	ND	2.31	116	2.00	1.59		
Toluene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.76		
Total Xylenes*	<0.150	0.150	04/13/2021	ND	6.47	108	6.00	1.95		
Total BTX	<0.300	0.300	04/13/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/14/2021	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	04/13/2021	ND	208	104	200	0.488	
DRO >C10-C28*	<10.0	10.0	04/13/2021	ND	217	108	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	04/13/2021	ND					

Surrogate: 1-Chlorooctane 89.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.0 % 42.2-156

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Analytical Results For:

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

Received:	04/13/2021	Sampling Date:	04/13/2021
Reported:	04/14/2021	Sampling Type:	Soil
Project Name:	COP - SEMU PERMIAN 15 WELLHEAD RE	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02483	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: WSW - 2 (6') (H210930-05)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/13/2021	ND	2.31	116	2.00	1.59		
Toluene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	04/13/2021	ND	2.18	109	2.00	1.76		
Total Xylenes*	<0.150	0.150	04/13/2021	ND	6.47	108	6.00	1.95		
Total BTX	<0.300	0.300	04/13/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/14/2021	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	04/13/2021	ND	208	104	200	0.488	
DRO >C10-C28*	<10.0	10.0	04/13/2021	ND	217	108	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	04/13/2021	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.7 % 42.2-156

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name: ConocoPhillips

Project Manager: Joe Tyler with Tetra Tech

Address: joe.tyler@tetratech.com

City: State: Zip:

Phone #: (432) 210-6952 Fax #: NA

Project #: 212C-MD-02017 03485 Project Owner:

Project Name: COP SEMU Penman 15 Wellhead Release

Project Location: SEMU Penman 15

Sample Name: Juv Tyler

BILL TO

P.O. #:

Company: ConocoPhillips Tetra Tech

Attn: Joe Tyler

Address: 901 West 10th St.

City: Suite 100 Midland, Texas 79701

State: TX Zip: 79701

Phone #:

Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D. Sample I.D.

HA10930

1 FL-7 (4)
2 FL-8 (4)
3 NSW-2 (4)
4 SSW-1 (2)
5 WSW-2 (6)

(G)RAB OR (C)OMP.
CONTAINERS
GROUNDWATER
WASTEWATER
SOIL
OIL
SLUDGE
OTHER :
ACID/BASE:
ICE / COOL
OTHER :

DATE TIME

TPH
BTEX
Chlorides
Hold

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Relinquished By:

Date: 4/13/21

Received By:

Relinquished By:

Date: 4/13/21

Received By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

1.3e

#4/13

Sample Condition
Cool Intact
☒ Yes ☐ No

CHECKED BY: (Initials)

Phone Results: ☐ Yes ☐ No Add'l Phone #:
Fax Results: ☐ Yes ☐ No Add'l Fax #:

Email Results to:

Joe Tyler and christon.muller@tetratech.com
24 Hour Risk

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

APPENDIX D

Photographic Documentation



TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the release area on pad.	1
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	1/20/2021



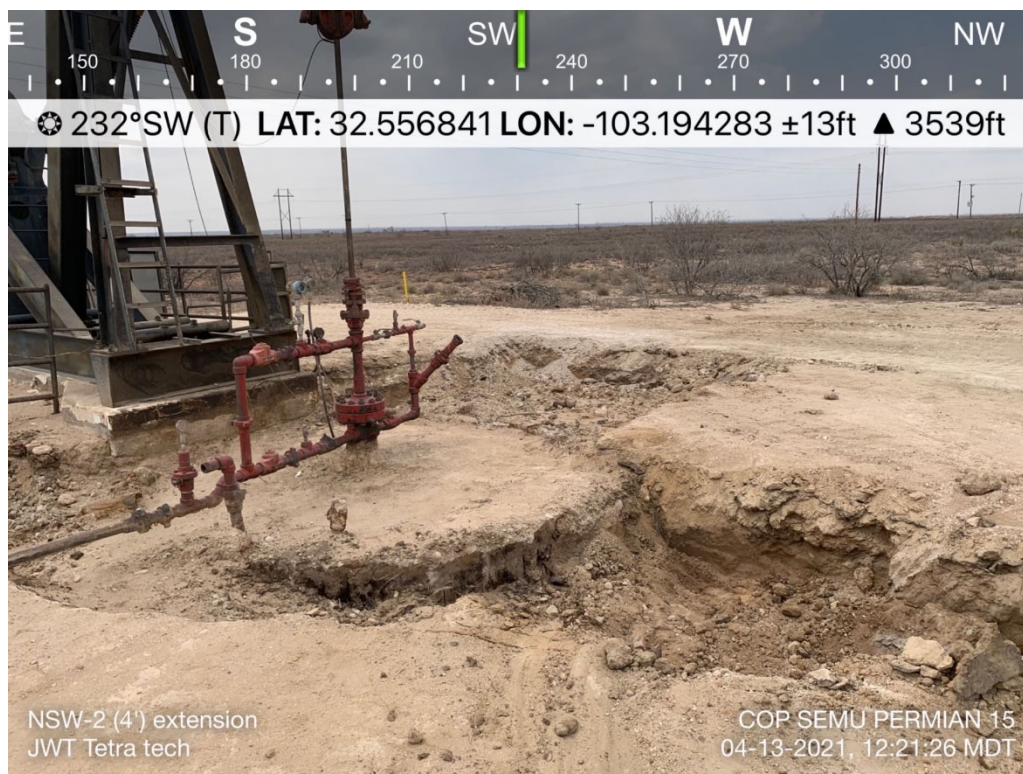
TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the release area on pad.	2
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	1/20/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the release area as it travelled off pad and into pasture.	3
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	1/20/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the release area as it travelled off pad and into pasture.	4
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	1/20/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the excavation area on pad prior to sampling.	5
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	4/13/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the excavation area in the pasture and pad prior to sampling.	6
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	4/14/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the excavation area in the pasture prior to sampling.	7
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	4/14/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02483	DESCRIPTION	View of the excavation area in the pasture prior to sampling.	8
	SITE NAME	ConocoPhillips SEMU Permian #15 Stuffing Box Release	4/14/2021

APPENDIX E

Waste Manifests



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: BRENT SWIMMER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/26/2021
 Hauler: MCNABB PARTNERS
 Driver: JESUS
 Truck #: M31
 Card #
 Job Ref #

Ticket #: 700-1201688
 Bid #: O6UJ9A000HH0
 Date: 3/26/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: BRENT SWIMMER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/26/2021
 Hauler: MCNABB PARTNERS
 Driver: JESUS
 Truck #: M31
 Card #
 Job Ref #

Ticket #: 700-1201730
 Bid #: O6UJ9A000HH0
 Date: 3/26/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOE TYLER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/29/2021
 Hauler: MCNABB PARTNERS
 Driver: TONY
 Truck #: M02
 Card #
 Job Ref #

Ticket #: 700-1202209
 Bid #: O6UJ9A000HH0
 Date: 3/29/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

10.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOE TYLER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/29/2021
 Hauler: MCNABB PARTNERS
 Driver: JESUS
 Truck #: M31
 Card #
 Job Ref #

Ticket #: 700-1202130
 Bid #: O6UJ9A000HH0
 Date: 3/29/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOE TYLER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/29/2021
 Hauler: MCNABB PARTNERS
 Driver: JESUS
 Truck #: M31
 Card #
 Job Ref #

Ticket #: 700-1202182
 Bid #: O6UJ9A000HH0
 Date: 3/29/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOE TYLER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/29/2021
 Hauler: MCNABB PARTNERS
 Driver: JESUS
 Truck #: M31
 Card #
 Job Ref #

Ticket #: 700-1202225
 Bid #: O6UJ9A000HH0
 Date: 3/29/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOE TYLER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/29/2021
 Hauler: MCNABB PARTNERS
 Driver: DANIEL
 Truck #: M79
 Card #
 Job Ref #

Ticket #: 700-1202226
 Bid #: O6UJ9A000HH0
 Date: 3/29/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____

well-015



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOE TYLER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/30/2021
 Hauler: MCNABB PARTNERS
 Driver: TONY
 Truck #: M02
 Card #
 Job Ref #

Ticket #: 700-1202414
 Bid #: O6UJ9A000HH0
 Date: 3/30/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

10.00 yards

Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____

(PLEASE PRINT)

Company Man Contact Information

Name

Phone No.

GENERATOR

NO. 504416

Operator No.

Operators Name

Address

City, State, Zip

Phone No.

Permit/RRC No.

Lease/Well

Name & No.

County

API No.

Rig Name & No.

AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	INJECTABLE WATERS
Oil Based Cuttings	Washout Water (Non-Injectable)	Washout Water (Injectable)
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	Completion Fluid/Flow back (Injectable)
Water Based Cuttings	Produced Water (Non-Injectable)	Produced Water (Injectable)
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	Gathering Line Water/Waste (Injectable)
Tank Bottoms	INTERNAL USE ONLY	OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS:

☐ DRILLING☐ COMPLETION☐ PRODUCTION☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

*please select from Non-Exempt Waste List on back

QUANTITY

B - BARRELS

L - LIQUID

Y - YARDS

E - EACH

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

☐

RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐

RCRA NON-EXEMPT:

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

☐

MSDS Information

☐

RCRA Hazardous Waste Analysis

☐

Other (Provide Description Below)

☐

EMERGENCY NON-OILFIELD:

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

(PRINT) AUTHORIZED AGENTS NAME

DATE

SIGNATURE

TRANSPORTER

Transporter's

Name

Address

Phone No.

Driver's Name

Print Name

Phone No.

Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

TRUCK TIME STAMP

IN:

OUT:

DISPOSAL FACILITY

RECEIVING AREA

Name/No.

Site Name/

Permit No.

Address

Phone No.

575-393-1079

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading > 50 micro roentgens? (circle one)

YES

NO

PASS THE PAINT FILTER TEST? (Circle One)

YES

NO

TANK BOTTOMS

Feet

Inches

1st Gauge

2nd Gauge

Received

BS&W/BBLs Received

Free Water

Total Received

BS&W (%)

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE

Operator No. _____
Operators Name Arnelo Phillips
Address _____
City, State, Zip _____
Phone No. _____

GENERATOR

Permit/RRC No. _____
Lease/Well Name & No. SEM U 15
County N/A
API No. _____
Rig Name & No. _____
AFE/PO No. _____

Name Joe
Phone No. 1414
NO. 504416

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	_____	NON-INJECTABLE WATERS	_____	INJECTABLE WATERS	_____
Oil Based Cuttings	_____	Washout Water (Non-Injectable)	_____	Washout Water (Injectable)	_____
Water Based Muds	_____	Completion Fluid/Flow back (Non-Injectable)	_____	Completion Fluid/Flow back (Injectable)	_____
Water Based Cuttings	_____	Produced Water (Non-Injectable)	_____	Produced Water (Injectable)	_____
Produced Formation Solids	_____	Gathering Line Water/Waste (Non-Injectable)	_____	Gathering Line Water/Waste (Injectable)	_____
Tank Bottoms	_____	INTERNAL USE ONLY	_____	OTHER EXEMPT WASTES (type and generation process of the waste)	_____
E&P Contaminated Soil	_____	Truck Washout (exempt waste)	_____		_____
Gas Plant Waste	_____				_____

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other _____ *please select from Non-Exempt Waste List on back

QUANTITY

B - BARRELS	L - LIQUID	Y - YARDS	E - EACH
	<u>10</u>		

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

☒ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

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

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

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

(PRINT) AUTHORIZED AGENTS NAME _____ DATE _____ SIGNATURE _____

TRANSPORTER

Transporter's Name McNabb Partners
Address _____
Phone No. _____

Driver's Name Tony
Print Name _____
Phone No. _____
Truck No. MOZ

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE _____ DRIVER'S SIGNATURE _____ DELIVERY DATE 3/30 DRIVER'S SIGNATURE [Signature]

TRUCK TIME STAMP
IN: _____ OUT: _____

DISPOSAL FACILITY
Name/No. 50131

Site Name/Permit No. Halfway Facility / NM1-006
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES ☒ NO ☐ IF YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒

PASS THE PAINT FILTER TEST? (Circle One) YES ☒ NO ☐

TANK BOTTOMS

1st Gauge	Feet	Inches	BS&W/BBLs Received	BS&W (%)
2nd Gauge			Free Water	
Received			Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED ☒ DENIED ☐ If denied, why? _____

NAME (PRINT) [Signature] DATE 3/30 TITLE AN SIGNATURE [Signature]



(PLEASE PRINT)

Company Man Contact Information

Name JoePhone No. 741/46**GENERATOR**NO. **504416**

Operator No.

Operators Name Armando Phillips

Address

City, State, Zip

Phone No.

Permit/RRC No.

Lease/Well Name & No. SEM 15

County

API No. N/A

Rig Name & No.

AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	INJECTABLE WATERS
Oil Based Cuttings	Washout Water (Non-Injectable)	Washout Water (Injectable)
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	Completion Fluid/Flow back (Injectable)
Water Based Cuttings	Produced Water (Non-Injectable)	Produced Water (Injectable)
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	Gathering Line Water/Waste (Injectable)
Tank Bottoms	INTERNAL USE ONLY	OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back

QUANTITY B - BARRELS L - LIQUID 10 Y - YARDS E - EACH

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

- ☒ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

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

(PRINT) AUTHORIZED AGENTS NAME

DATE

SIGNATURE

TRANSPORTER

Transporter's Name McNabb Partners Driver's Name Tony

Address Print Name

Phone No. Phone No.

Truck No. Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

TRUCK TIME STAMP**DISPOSAL FACILITY****RECEIVING AREA**

IN: OUT: Name/No. 50121

Site Name/ Permit No. Halfway Facility / NM1-006 Phone No. 575-393-1079

Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

Feet	Inches	BS&W/BBLs Received	BS&W (%)
1st Gauge		Free Water	
2nd Gauge		Total Received	
Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: BRENT SWIMMER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/30/2021
 Hauler: MCNABB PARTNERS
 Driver: JESUS
 Truck #: M31
 Card #
 Job Ref #

Ticket #: 700-1202426
 Bid #: O6UJ9A000HH0
 Date: 3/30/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: BRENT SWIMMER
 AFE #:
 PO #:
 Manifest #: NA
 Manif. Date: 3/30/2021
 Hauler: MCNABB PARTNERS
 Driver: DANIEL
 Truck #: M79
 Card #
 Job Ref #

Ticket #: 700-1202438
 Bid #: O6UJ9A000HH0
 Date: 3/30/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____

WELL
015



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOHN THURSTON
 AFE #:
 PO #:
 Manifest #: 1
 Manif. Date: 4/13/2021
 Hauler: MCNABB PARTNERS
 Driver: JOSH
 Truck #: M75
 Card #
 Job Ref #

Ticket #: 700-1204609
 Bid #: O6UJ9A000HH0
 Date: 4/13/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOHN THURSTON
 AFE #:
 PO #:
 Manifest #: 2
 Manif. Date: 4/13/2021
 Hauler: MCNABB PARTNERS
 Driver: JR
 Truck #: M78
 Card #
 Job Ref #

Ticket #: 700-1204612
 Bid #: O6UJ9A000HH0
 Date: 4/13/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Permian Basin

Facility: CRI

Product / Service						Quantity Units					
Contaminated Soil (RCRA Exempt)						18.00 yards					
	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOHN THURSTON
 AFE #:
 PO #:
 Manifest #: 3
 Manif. Date: 4/13/2021
 Hauler: MCNABB PARTNERS
 Driver: JR
 Truck #: M78
 Card #
 Job Ref #

Ticket #: 700-1204694
 Bid #: O6UJ9A000HH0
 Date: 4/13/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service	Quantity Units										
Contaminated Soil (RCRA Exempt)	18.00 yards										
	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOHN THURSTON
 AFE #:
 PO #:
 Manifest #: 4
 Manif. Date: 4/13/2021
 Hauler: MCNABB PARTNERS
 Driver: JOSH
 Truck #: M75
 Card #
 Job Ref #

Ticket #: 700-1204699
 Bid #: O6UJ9A000HH0
 Date: 4/13/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOHN THURSTON
 AFE #:
 PO #:
 Manifest #: 5
 Manif. Date: 4/13/2021
 Hauler: MCNABB PARTNERS
 Driver: JESUS
 Truck #: M31
 Card #
 Job Ref #

Ticket #: 700-1204718
 Bid #: O6UJ9A000HH0
 Date: 4/13/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____



Permian Basin

Customer: CONOCOPHILLIPS
 Customer #: CRI2190
 Ordered by: JOHN THURSTON
 AFE #:
 PO #:
 Manifest #: 6
 Manif. Date: 4/13/2021
 Hauler: MCNABB PARTNERS
 Driver: GUMER
 Truck #: M32
 Card #
 Job Ref #

Ticket #: 700-1204719
 Bid #: O6UJ9A000HH0
 Date: 4/13/2021
 Generator: CONOCOPHILLIPS
 Generator #:
 Well Ser. #: 07810
 Well Name: SEMU PERMIAN
 Well #: 015
 Field:
 Field #:
 Rig: NON-DRILLING
 County: LEA (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

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

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

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____

Date: _____

APPENDIX F

NMSLO Seed Mixture Details



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

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

Custom Soil Resource Report for **Lea County, New Mexico**

SEMU PERMIAN #015



April 14, 2021

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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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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

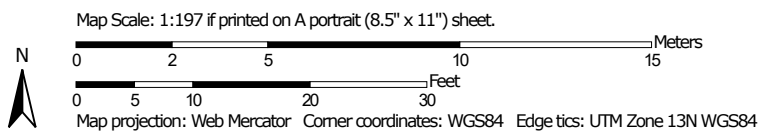
Soil Map

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




Soil Map may not be valid at this scale.




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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: Lea County, New Mexico
Survey Area Data: Version 17, Jun 8, 2020

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.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit soils and Dune land, 0 to 12 percent slopes	0.2	100.0%
Totals for Area of Interest		0.2	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.

Custom Soil Resource Report

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.

Custom Soil Resource Report

Lea County, New Mexico**KM—Kermit soils and Dune land, 0 to 12 percent slopes****Map Unit Setting**

National map unit symbol: dmpx
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 46 percent
Dune land: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit**Setting**

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear, concave
Across-slope shape: Convex
Parent material: Calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sand
C - 8 to 60 inches: fine sand

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R042XC022NM - Sandhills
Hydric soil rating: No

Custom Soil Resource Report

Description of Dune Land

Setting

Landform: Dunes

Landform position (two-dimensional): Shoulder, backslope, footslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex, linear, concave

Across-slope shape: Convex

Typical profile

A - 0 to 6 inches: fine sand

C - 6 to 60 inches: fine sand

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Palomas

Percent of map unit: 3 percent

Ecological site: R042XC003NM - Loamy Sand

Hydric soil rating: No

Pyote

Percent of map unit: 3 percent

Ecological site: R042XC003NM - Loamy Sand

Hydric soil rating: No

Wink

Percent of map unit: 2 percent

Ecological site: R042XC003NM - Loamy Sand

Hydric soil rating: No

Maljamar

Percent of map unit: 2 percent

Ecological site: R042XC003NM - Loamy Sand

Hydric soil rating: No

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Custom Soil Resource Report

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NMSLO Seed Mix**Sandy (S)****SANDY (S) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Sand bluestem	Elida, VNS, So.	2.0	F
Little bluestem	Cimarron, Pastura	3.0	F
Black grama	VNS, Southern	1.0	D
Sand dropseed	VNS, Southern	4.0	S
Plains bristlegrass	VNS, Southern	2.0	D
Forbs:			
Firewheel (Gaillardia)	VNS, Southern	1.0	D
Annual Sunflower	VNS, Southern	1.0	D
Shrubs:			
Fourwing Saltbush	VNS, Southern	1.0	F
Total PLS/acre		16.0	

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

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



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

CONDITIONS

Action 24685

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 24685
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	6/10/2021