TETRA TECH

March 14, 2024

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

Subject: **Remediation Report and Closure Request**
Maverick Permian, LLC
SEMU Permian #073 Flowline Release
Unit Letter F, Section 19, Township 20 South, Range 38 East
Lea County, New Mexico
Incident ID nPAC0714434227

Dear Sir or Madam,

Tetra Tech, Inc. (Tetra Tech) was initially contracted by ConocoPhillips (COP) to assess a historical release that occurred from a flowline associated with the South East Monument Unit (SEMU) Permian #073 well (API No. 30-025-07822). The release footprint is located in Public Land Survey System (PLSS) Unit Letter F, Section 19, Township 20 South, Range 38 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.559244°, -103.189252°, as shown in **Figures 1** and **Figure 2**. Maverick Permian LLC (Maverick) subsequently acquired the Site from COP and began operating the Site in June 2022 and performed the remediation as described within this report.

BACKGROUND

According to the State of New Mexico C-141 Notification of Release provided in **Attachment 1**, on November 24, 2004, a release occurred due to internal corrosion on a flowline from the SEMU Permian #073 well. The release consisted of 35 barrels (bbls) of oil and produced water and affected a 55-foot by 25-foot area. During immediate response actions, a vacuum truck recovered 28 bbls of free liquids. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on May 23, 2007. The release was subsequently assigned Incident ID nPAC0714434227. This release is included in the Agreed Compliance Order-Releases (ACO-R) between COP and the NMOCD fully executed on May 9, 2019.

SITE CHARACTERIZATION

Receptors

Tetra Tech performed a site characterization that identified no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is also located in an area mapped as low karst potential.

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Depth to Groundwater

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within a ½-mile radius of the Site. Furthermore, there are no water wells within a one-mile radius of the Site. However, there are four (4) water wells within approximately 1.5 miles of the Site. The average depth to groundwater for these wells is 73 feet below ground surface (bgs).

On March 7, 2024, Tetra Tech and West Texas Water Well mobilized to the SEMU Permian #027 (API 30-025-07814) Well Pad and installed a Depth-To-Water (DTW) boring to 55 feet bgs at 32.560329°, -103.189912°, approximately 400-feet south-southeast of the Site. The DTW boring did not identify groundwater in the upper 55 feet to verify groundwater is below 55 feet bgs at the Site.

The site characterization data is included in **Attachment 2** and boring logs are provided in **Attachment 3**.

REGULATORY FRAMEWORK

Based upon the release footprint location 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 (BTEX), Total Petroleum Hydrocarbons (TPH), and chloride in soil.

Based on the site characterization, established depth to groundwater, and in accordance with Table 1 of 19.15.29.12 NMAC, the remediation RRALs for the Site are as follows:

Closure Criteria for Soils Impacted by a Release

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

Additionally, in accordance with the New Mexico Oil Conservation District (NMOCD) guidance *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* (September 6, 2019), the following reclamation requirements for surface soils (0-4 feet bgs) are as follows:

Reclamation Requirements

Constituent	Remediation RRAL
Chloride	600 mg/kg
TPH (GRO+DRO+ORO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

INITIAL ASSESSMENT ACTIVITIES AND SAMPLING RESULTS

Tetra Techs review of available documentation on the historic incident indicates that Environmental Plus, Inc (EPI) was onsite on behalf of COP on February 3, 2005, to delineate the vertical extent of impacted soil. The initial assessment activities and results are documented in a report prepared by EPI dated June 2, 2005 provided in **Attachment 4**.

During this initial assessment, EPI installed one soil boring to 15 feet bgs (BH-1) and one soil boring to 10 feet bgs (BH-2) within the release extent. EPI collected samples at 2-feet, 5-feet, 10-feet, and 15-feet bgs and field screened for the presence of organic vapors and salinity. A total of six (6) samples were selected from the two (2) borings and sent to Environmental Lab of Texas in Odessa, Texas for analysis of BTEX by EPA Method 8021B, TPH by EPA Method 8015M, and chloride by EPA Method 300.0.

Analytical results associated with the 2-foot sample interval at BH-1 reported TPH at a concentration greater than the NMOCD remedial threshold identified by EPI for the Site of 1,000 mg/kg. Analytical results from the 5-foot and 10-foot intervals at BH-1 and all sample intervals at BH-2 reported concentrations of benzene (10 mg/kg), BTEX (50 mg/kg), and TPH (1,000 mg/kg). Laboratory analytical results for chloride in soil were directly compared by EPI to the New Mexico Water Quality Control Commission's (NMWQCC) chloride standard of 250 mg/L. The field chloride analytical results for the 5-foot interval samples at both locations reported concentrations of chloride as greater than the NMWQCC chloride standard.

Based on the initial assessment results, EPI concluded that soils impacted above the NMOCD remedial thresholds identified in the EPI report extended to a depth of approximately 5 ft bgs, and recommended that soils in the vicinity of BH-1 be excavated to this depth. EPI estimated the release area to be approximately 1,370 square feet., however, the release extent was not delineated horizontally during the initial assessment. Subsequent to Tetra Tech's involvement with the assessment and remediation of this incident, Tetra Tech amended the proposed Site RRALs and Reclamation Requirements to reflect the current NMOCD requirements for remediation and restoration, which are more stringent than the remedial thresholds identified in the EPI report.

ADDITIONAL SITE ASSESSMENT

Based on the results of the initial EPI assessment, Tetra Tech mobilized to Site on behalf of COP on November 5, 2020, to conduct soil sampling to complete vertical and horizontal delineation of the release. A total of five (5) borings were advanced via hand auger inside the release extent (AH-1) to a depth of 10 feet bgs, and along the perimeter of the release extent (AH-2 through AH-5) to depths of 3 feet bgs. Soils at the Site consist of brown sandy soils from the surface down to 10 feet bgs. **Figure 3** depicts the release extent and the November 2020 soil boring locations. GPS coordinates for the boring locations are presented in **Table 1**. Photographic documentation of the release area from June 2020 is included in **Attachment 5**.

Soils were field screened for salinity using an ExTech EC400 ExStik to determine sampling intervals. Tetra Tech collected a total of 22 samples from the five (5) borings (AH-1 through AH-5) and submitted to Pace Analytical Laboratory (Pace) in Mount Juliet, Tennessee for analysis of chloride by EPA Method 300.0, TPH by EPA Method 8015M, and BTEX by EPA Method 8021B. Analytical data packages including chain-of-custody documentation are included in **Attachment 6**.

SUMMARY OF ADDITIONAL SITE ASSESSMENT RESULTS

Results from the November 2020 soil sampling event are summarized in **Table 2**. The analytical results associated with the interior sample location (AH-1) reported TPH in sample intervals from the upper 4 feet at concentrations greater than Reclamation Requirements of 100 mg/kg. The remaining TPH analytical results reported concentrations as less than the TPH remediation RRAL of 2,500 mg/kg for samples collected from intervals greater than 4 feet bgs. Laboratory analytical results for benzene, BTEX, and chloride reported concentrations as less than Reclamation Requirements.

REMEDIATION AND CONFIRMATION SAMPLING

Excavation activities commenced on November 6, 2023, and concluded on December 18, 2023. Maverick's subcontractor, McNabb Partners, used heavy equipment to excavate impacted soil from the remediation areas to a maximum depth of 4 feet bgs as shown in **Figure 4**. McNabb excavated a total of 410 cubic yards of contaminated soil from an approximately 2,540 square-foot area and transported the soil to R360 for offsite disposal. McNabb sourced 396 cubic yards of topsoil to backfill the excavation.

Upon reaching the planned lateral and vertical excavation extents of the excavation, Tetra Tech collected a total of 20 confirmation samples, including 6 floor samples and 14 side wall samples from the excavated areas, of which 16 samples verified reclamation/remediation standards have been obtained with a sampling density of approximately one sample per 200 square feet.

Confirmation samples were submitted to Cardinal Laboratory in Hobbs, New Mexico for analysis of BTEX by Method 8021B, chloride by Method SM4500 CL-B, and TPH by Method TPH 8015M. Laboratory analytical results for submitted confirmation samples reported concentrations of BTEX, TPH, and chloride as less than respective Reclamation Requirements or RRALs, as applicable based on sample depth except at SW - 8 and SW – 9.

Additional excavation was performed, and SW - 8 and SW - 9 areas were resampled two times until confirmation samples reported TPH concentrations as less than Reclamation Requirements, confirming clean margins were obtained. Confirmation sampling locations and excavation extents are shown in **Figure 4**. Confirmation sampling laboratory analytical results screened against Reclamation Requirements and RRALs are summarized in **Table 3** and **Table 4**. Laboratory analytical data packages including chain of custody documentation are included in **Attachment 6**.

Subsequent to the receipt of confirmation sample results, McNabb completed backfilling of the excavated areas with 396 cubic yards of clean topsoil obtained from the Bob McCasland Pit before grading the topsoil and seeded with New Mexico State Land Office (NMSLO) Sandy (S) Sites Seed Mixture in accordance with the Site soil profile detailed above in the Site Characterization Section, to aid in vegetation growth to complete reclamation. Photographic Documentation showing the excavated areas and final grading after backfilling is provided in **Attachment 5** and the seed mixture applied to the remediation Site is provided in **Attachment 7**.

VARIANCE REQUEST

Tetra Tech and Maverick understand that failure to notify the NMOCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted. Tetra Tech failed to notify the NMOCD of sampling 48 hours in advance in accordance with 19.15.29.12.D.(1).(a). Tetra Tech respectfully requests a variance for the failure to notify the NMOCD of sampling in consideration of the significant changes to the NMOCD notification process and changes that were implemented by the NMOCD in early December 2023.

Tetra Tech has reviewed the C-141N notification process and NMOCD *Public Notice Implementation of Digital C-141 and Incident Statuses* document dated December 1, 2023, and has shifted to strictly adhering to the sampling notification requirements of 19.15.29.12.D.(1).(a) NMAC and NMOCD notification guidance.

CONCLUSIONS

Based on the results of the confirmation sampling, the impacted soil within the release footprint with concentrations greater than Reclamation Requirements and/or RRALs has been removed and properly disposed of offsite and the excavated area has been backfilled with clean material, graded, and seeded with BLM approved seed mixture; therefore, Site remediation is complete. If you have any questions concerning the remediation activities for the Site, please call Steve at (713) 806-8871 or Chuck at (832-252-2093.

Sincerely,

Stephen Jester
Project Manager
Tetra Tech, Inc.

Charles H. Terhune IV, P.G.
Program Manager
Tetra Tech, Inc.

cc: Mr. Bryce Wagoner, Maverick Natural Resources
Bureau of Land Management

LIST OF ATTACHMENTS

Figures

Tables

Attachments

FIGURES

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-1342\FIGURE 1 SITE LOCATION_1RP-1342.MXD

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MAVERICK PERMIAN LLC

nPAC0714434227
(32.55939°, -103.1891°)
LEA COUNTY, NEW MEXICO

SEMU PERMIAN #73 FLOWLINE RELEASE
SITE LOCATION MAP

PROJECT NO.:	212C-MD-03272
DATE:	JANUARY 8, 2024
DESIGNED BY:	AAM

Figure No.
1

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-1342\FIGURE 2 TOPO_1RP-1342.MXD

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SEMU PERMIAN #073 FLOWLINE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-03272
DATE:	January 8, 2024
DESIGNED BY:	AAM

Figure No.
2

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-1342\FIGURE 3 SITE LOCATION_1RP-1342.MXD

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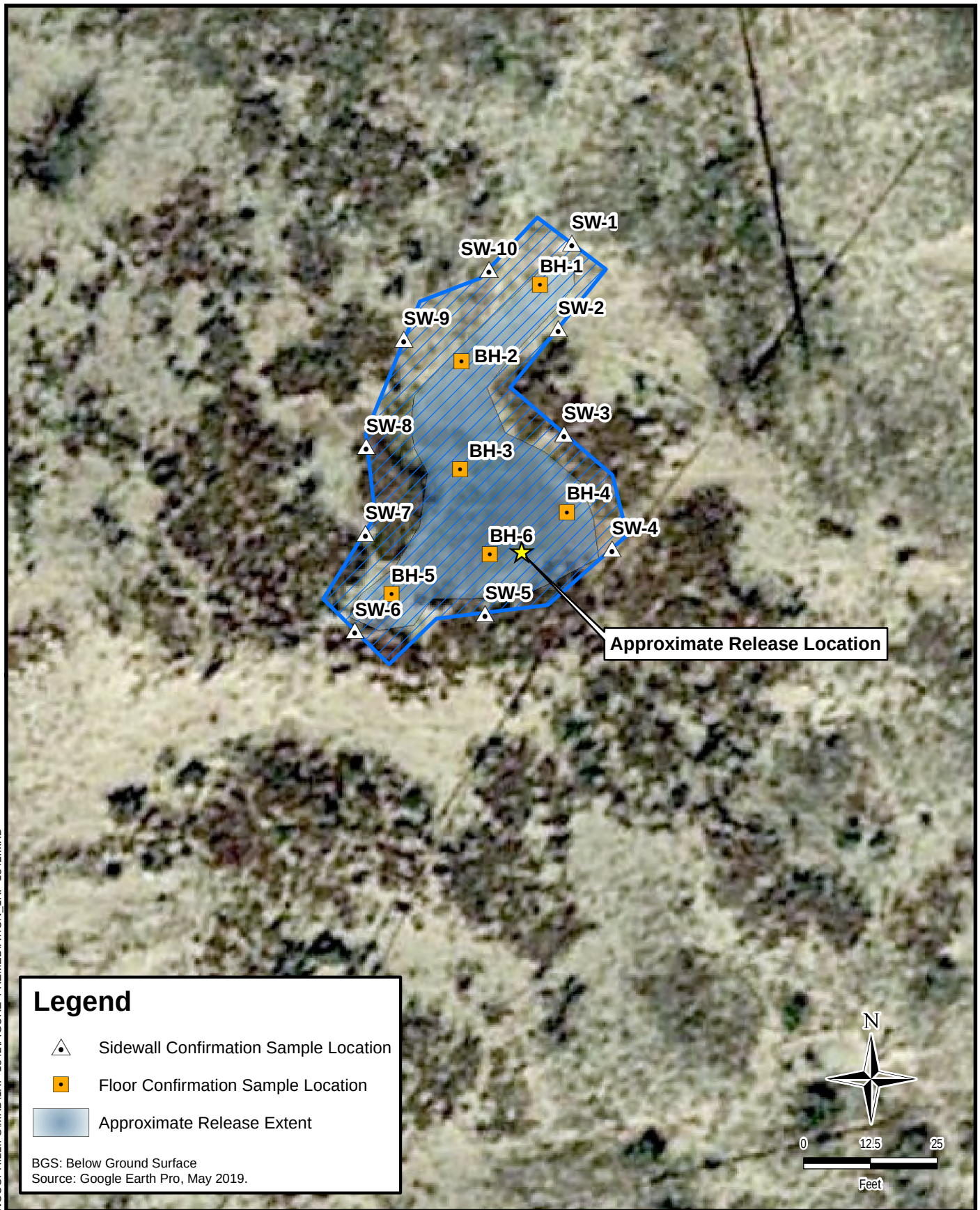
SEMU PERMIAN #073 FLOWLINE RELEASE
RELEASE EXTENT AND SITE ASSESSMENT

PROJECT NO.:	212C-MD-03272
DATE:	JANUARY 8, 2024
DESIGNED BY:	AAM

Figure No.
3



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-1342\FIGURE 4 REMEDIATION_1RP-1342.MXD

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MAVERICK PERMIAN, LLC

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SEMU PERMIAN #073 FLOWLINE RELEASE
REMEDIATION EXTENT AND CONFIRMATION SAMPLING

PROJECT NO.:	212C-MD-03272
DATE:	JANUARY 09, 2024
DESIGNED BY:	AAM

Figure No.
4

TABLES

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TABLE 1
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT LOCATIONS - INCIDENT NPAC0714434227
MAVERICK PERMIAN, LLC
SEMU PERMIAN #073 FLOWLINE RELEASE
LEA COUNTY, NEW MEXICO

Boring ID	Latitude	Longitude
AH - 1	32.559241	-103.189240
AH - 2	32.559401	-103.189279
AH - 3	32.559260	-103.189183
AH - 4	32.559186	-103.189197
AH - 5	32.559251	-103.189410

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TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT SAMPLING - INCIDENT NPAC0714434227
MAVERICK PERMIAN, LLC
SEMU PERMIAN #073 FLOWLINE RELEASE
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]										TPH[3]							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		ORO		Total TPH	
															C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{40}		(GRO+DRO+EXT DRO)	
		feet bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
Reclamation Requirements (19.15.29 NMAC)			**600**		**10**								**50**								**100**	
AH-1	11/5/2020	0-1	< 20.1		< 0.00101		< 0.00507		< 0.00253		< 0.00659		-		< 0.101		311		1180		**1491**	
	11/5/2020	1-2	< 20.5		< 0.00105		< 0.00527		< 0.00264		< 0.00685		-		< 0.103		1170		2890		**4060**	
	11/5/2020	2-3	< 20.3		< 0.00103		< 0.00517		< 0.00259		0.000983	J	0.000983		< 0.102		247		968		**1215**	
	11/5/2020	3-4	< 20.3		< 0.00103		< 0.00516		< 0.00258		< 0.00670		-		< 0.102		134		446		**580**	
	11/5/2020	4-5	< 20.4		< 0.00104		< 0.00521		< 0.00260		< 0.00677		-		< 0.102		21.6		91.4		**113**	
	11/5/2020	5-6	< 20.3		< 0.00103		< 0.00515		< 0.00258		< 0.00670		-		< 0.102		9.91		24.7		34.6	
	11/5/2020	6-7	< 20.4		< 0.00104		< 0.00519		< 0.00260		< 0.00675		-		< 0.102		8.08		19.4		27.5	
	11/5/2020	7-8	< 20.8		< 0.00108		< 0.00541		< 0.00270		< 0.00703		-		0.0368	B J	12.6		29.7		42.3	
	11/5/2020	8-9	< 105		< 0.00110		< 0.00550		< 0.00275		< 0.00715		-		< 0.105		< 4.20		6.39		6.39	
	11/5/2020	9-10	< 104		< 0.00108		< 0.00542		< 0.00271		< 0.00704		-		< 0.104		4.1	J	14.5		18.6	
AH-2	11/5/2020	0-1	< 20.1		< 0.00101		< 0.00503		< 0.00251		< 0.00654		-		< 0.100		< 4.01		2.06	J	2.06	
	11/5/2020	1-2	< 20.1		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		< 0.100		< 4.01		2.6	J	2.6	
	11/5/2020	2-3	< 20.1		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		< 0.100		< 4.02		1.91	J	1.91	
AH-3	11/5/2020	0-1	< 20.3		< 0.00103		< 0.00517		< 0.00258		< 0.00672		-		< 0.102		6.29		29.4		35.7	
	11/5/2020	1-2	< 20.1		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		< 0.100		< 4.02		5.14		5.14	
	11/5/2020	2-3	< 20.1		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		0.0281	B J	< 4.01		8.7		8.73	
AH-4	11/5/2020	0-1	< 20.1		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		< 0.100		< 4.02		7.56		7.56	
	11/5/2020	1-2	< 20.1		< 0.00101		< 0.00503		< 0.00251		< 0.00654		-		< 0.100		1.7	J	6.52		8.22	
	11/5/2020	2-3	< 20.1		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		< 0.100		< 4.01		3.76	J	3.76	
AH-5	11/5/2020	0-1	< 20.1		< 0.00101		< 0.00506		< 0.00253		< 0.00658		-		< 0.101		2.33	J	14.1		16.4	
	11/5/2020	1-2	< 20.1		< 0.00101		< 0.00506		< 0.00253		< 0.00657		-		< 0.101		1.68	J	9.14		10.8	
	11/5/2020	2-3	< 20.1		< 0.00101		< 0.00506		< 0.00253		< 0.00658		-		< 0.101		2.46	J	11.2		13.7	

NOTES:

bgs: Below ground surface
Q: Laboratory Qualifier
TPH: Total Petroleum Hydrocarbons
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
1: Method 300.0
2: Method 8021B
3: Method 8015

Bold and highlighted values indicate exceedance of Reclamation Requirements (19.15.29 NMAC).
B: The same analyte is found in the associated blank.
J: The identification of the analyte is acceptable; the reported value is an estimate.

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TABLE 3
SUMMARY OF ANALYTICAL RESULTS
SHALLOW SOIL CONFIRMATION SAMPLING - INCIDENT NPAC0714434227
MAVERICK PERMIAN, LLC
SEMU PERMIAN #073 FLOWLINE RELEASE
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]								TPH[3]							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
															C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)
		feet bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
Reclamation Requirements (19.15.29 NMAC)			**600**		**10**								**50**								**100**
SW - 1	11/29/2023	0.0 - 4.0	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SW - 2	11/29/2023	0.0 - 4.0	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SW - 3	11/29/2023	0.0 - 4.0	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SW - 4	11/29/2023	0.0 - 4.0	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		36		14		49
SW - 5	11/29/2023	0.0 - 4.0	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		22		<10.0		22
SW - 6	11/29/2023	0.0 - 4.0	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SW - 7	11/29/2023	0.0 - 4.0	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SW - 8	11/29/2023	0.0 - 4.0	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		151		107		**258**
SW - 8	12/1/2023	0.0 - 4.0	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		57		45		**102**
SW - 8	12/5/2023	0.0 - 4.0	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SW - 9	11/29/2023	0.0 - 4.0	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		188		138		**326**
SW - 9	12/1/2023	0.0 - 4.0	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		73		58		**131**
SW - 9	12/5/2023	0.0 - 4.0	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
SW - 10	11/29/2023	0.0 - 4.0	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		42		21		62

NOTES:

bgs: Below ground surface
GRO: Gasoline Range Organics
1: Method SM4500Cl-B
Bold and highlighted values indicate exceedance of Reclamation Requirements (19.15.29 NMAC).

Q: Laboratory Qualifier
DRO: Diesel Range Organics
2: Method 8021B
Highlighted indicates location was laterally or vertically over-excavated and resampled.

TPH: Total Petroleum Hydrocarbons
EXT DRO: Oil Range Organics
3: Method 8015M

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TABLE 4
SUMMARY OF ANALYTICAL RESULTS
DEEP CONFIRMATION SAMPLING - INCIDENT PAC0714434227
MAVERICK PERMIAN, LLC
SEMU PERMIAN #073 FLOWLINE RELEASE
LEA COUNTY, NEW MEXICO

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}		TPH GRO+DRO	Total TPH (GRO+DRO+EXT DRO)
		feet bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	mg/kg
RRALs (Table I 19.15.29.12 NMAC)			**10,000**		**10**								**50**								**1,000**	**2,500**
BH - 1 (4.0')	11/29/2023	4.0 - 4.5	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
BH - 2 (4.0')	11/29/2023	4.0 - 4.5	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		176		127		176	303
BH - 3 (4.0')	11/29/2023	4.0 - 4.5	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
BH - 4 (4.0')	11/29/2023	4.0 - 4.5	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-
BH - 5 (4.0')	11/29/2023	4.0 - 4.5	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		55		56		55	111
BH - 6 (4.0')	11/29/2023	4.0 - 4.5	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	-

NOTES:

bgs: Below ground surface
Q: Laboratory Qualifier
TPH: Total Petroleum Hydrocarbons
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
EXT DRO: Oil Range Organics
1: Method SM4500Cl-B
2: Method 8021B
3: Method 8015M

Bold and highlighted values indicate exceedance of Table I 19.15.29.12 NMAC.
Highlighted indicates location was laterally or vertically over-excavated and resampled.

ATTACHMENT 1: C-141 DOCUMENTATION

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-14
Revised October 10, 20

Submit 2 Copies to appropria
District Office in accordan
with Rule 116 on bac
side of for

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Rep

Name of Company ConocoPhillips Company	Contact John Abney
Address 4001 Penbrook Street Odessa, TX 79762	Telephone No. (505)391-3128
Facility Name SEMU Permian #73	Facility Type Oil Well

Surface Owner Bob McCasland	Mineral Owner BLM	Lease No. 031670B

LOCATION OF RELEASE

API # 30025 07822 0000

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	19	20S	38E	660	North	1980	East	

Latitude 32 33.561 Longitude 103 11.324

NATURE OF RELEASE

Type of Release Oil and Produced water	Volume of Release 35 barrels / Volume Recovered 28 barrels
Source of Release Flowline	Date and Hour of Occurrence 11/24/04 Date and Hour of Discovery 11/24/04
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Sylvia Dickey (via voice mail) NMOCD
By Whom? John Abney	Date and Hour 11/24/04 4:10 pm
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA

If a Watercourse was Impacted, Describe Fully.*
NA

RP# 1342

Describe Cause of Problem and Remedial Action Taken.*
Internal corrosion on flowline. Line was clamped for the weekend and then replaced 2 joints of pipe on Monday 11/29/04.

Describe Area Affected and Cleanup Action Taken.*
The area affected is 55' X 25' all free liquid was picked up. The site will have to be assessed to determine the appropriate remeditation necessary.

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

Signature: John Abney

Printed Name: John Abney

Title: SHEaR Specialist

E-mail Address: john.h.abney@conocophillips.com

Date: 11/30/2004 Phone: (505)391-3128

OIL CONSERVATION DIVISION

ENVIRO ENGR

Approved by District Supervisor: [signature]

Approval Date: 5-23-07 Expiration Date:

Conditions of Approval: SUBMIT FINAL (SIGNED) C-141 W/ CLOSURE RESULTS ATTACHED

Attached ☐

Attach Additional Sheets If Necessary

RP# 1342

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Charles R. Beauvais II Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

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: Charles R. Beauvais II Date: _____

email: _____ Telephone: _____

OCD Only

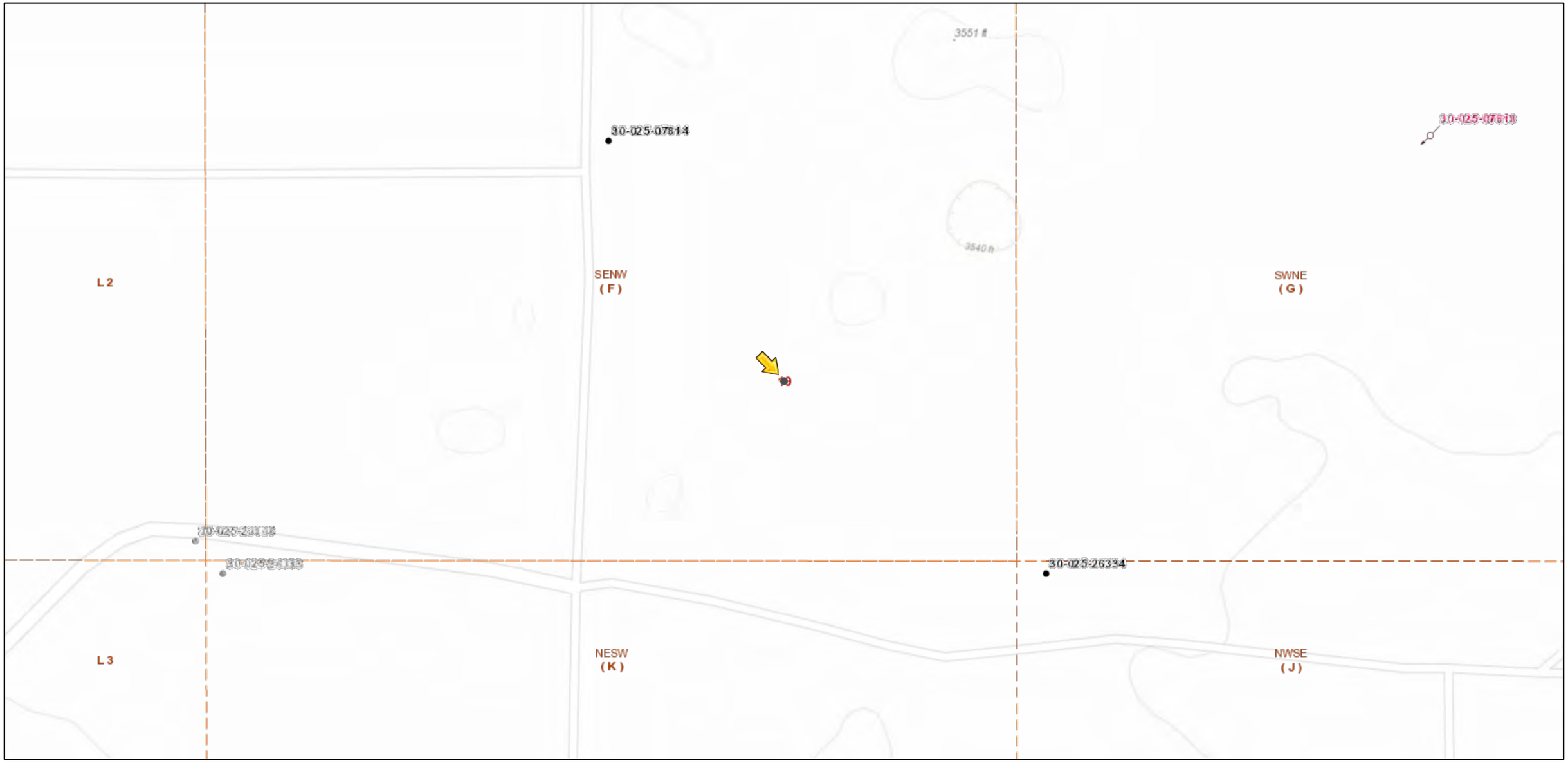
Received by: _____ Date: _____

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

Signature: _____ Date: _____

ATTACHMENT 2: SITE CHARACTERIZATION DATA

1RP-1342



7/27/2020, 2:41:03 PM

1:2,257

0 125 250 500 ft

0 37.5 75 150 m

Override 1

Wells - Large Scale

undefined

Miscellaneous

CO2, Active

CO2, Cancelled

CO2, New

CO2, Plugged

CO2, Temporarily Abandoned

Gas, Active

Gas, Cancelled

Gas, New

Gas, Plugged

Gas, Temporarily Abandoned

Injection, Active

Injection, Cancelled

Injection, New

Injection, Plugged

Injection, Temporarily Abandoned

Oil, Active

Oil, Cancelled

Oil, New

Oil, Plugged

Oil, Temporarily Abandoned

Salt Water Injection, Active

Salt Water Injection, Cancelled

Salt Water Injection, New

Salt Water Injection, Plugged

Salt Water Injection, Temporarily Abandoned

Water, Active

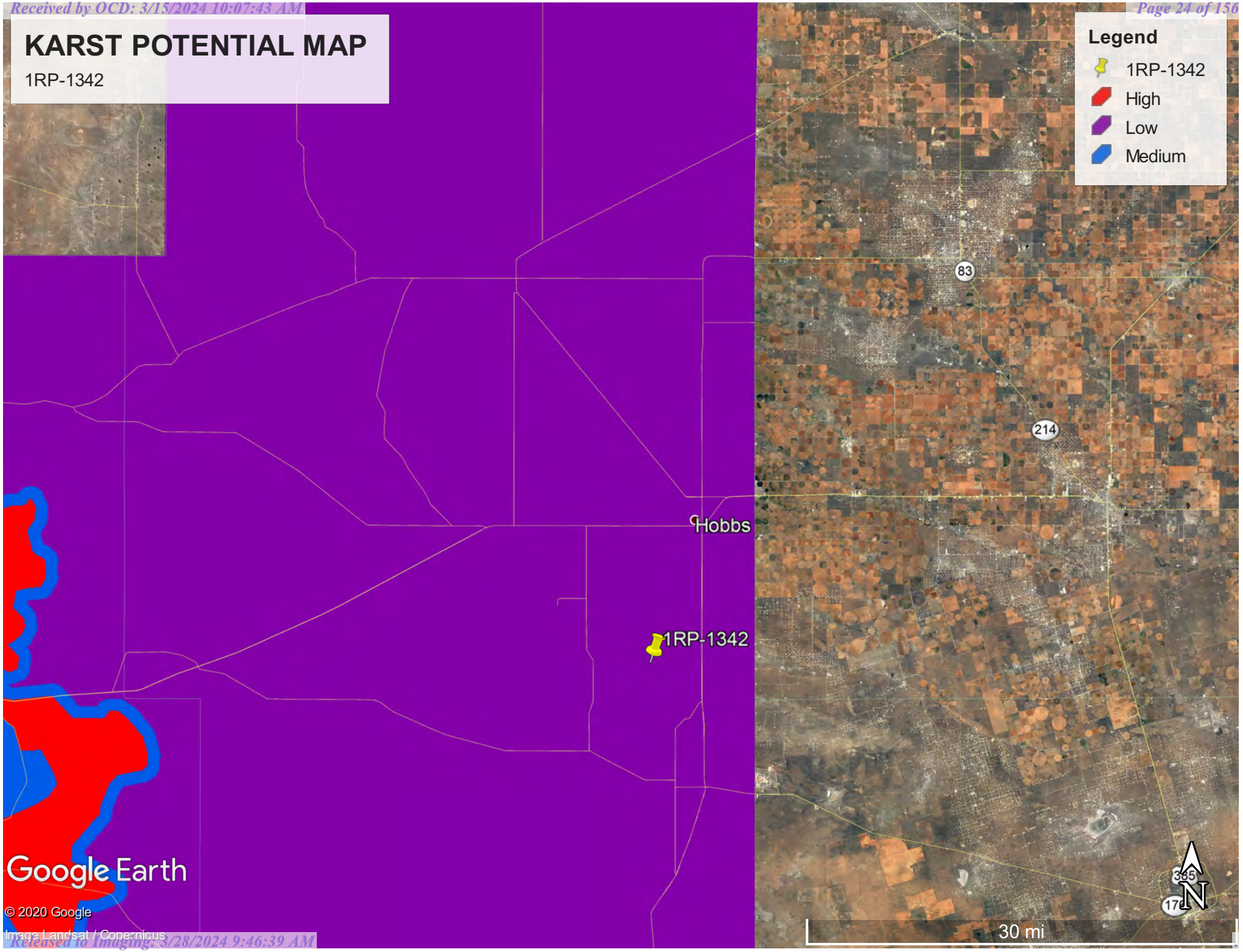
Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI,

New Mexico Oil Conservation Division

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

KARST POTENTIAL MAP

1RP-1342



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 Code	Sub-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*	1803	155	84	71
L 02109		L	LE	2	4	2	18	20S	38E	670803	3605719*	1992	124	50	74
L 04412		L	LE	4	2	2	13	20S	37E	669181	3605894*	2172	140	85	55
L 05351		L	LE		2	2	13	20S	37E	669082	3605995*	2304	115		

Average Depth to Water: **73 feet**

Minimum Depth: **50 feet**

Maximum Depth: **85 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 670015.41 **Northing (Y):** 3603888.24 **Radius:** 2400

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

ATTACHMENT 3: BORING LOGS

TETRA TECH

BORING LOG: DTW-01 (L-15651 POD1)

PROJECT NUMBER: 212C-MD-03271
PROJECT NAME: SEMU Permian Remediations
CLIENT: Maverick Permian, LLC
ADDRESS: 1410 NW County Road
Hobbs, NM 88240

DRILLING COMPANY: West Texas Water Well
DRILL RIG: Air Rotary Rig
DRILLING METHOD: Air Rotary
BORING TYPE: Depth-to-Water
TOTAL DEPTH: 55 feet
DIAMETER: 8 inches

LATITUDE: 32.560316°
LONGITUDE: -103.190072°
SURFACE ELEVATION: 3,547 feet AMSL
LOGGED BY: Adrian Garcia
CHECKED BY: Charles Terhune

COMMENTS: AMSL: Above Mean Sea Level

Depth (Feet)	Drilling Method	Boring Completion	Graphic Log	Material Description
0	AR			CALICHE, white, dry, poorly sorted, angular, homogeneous.
5				SAND, light brown, dry, fine to medium grained, poorly sorted, loose, sub-angular to sub-rounded, homogeneous.
10				
15				CALICHE, white/pink, moist, medium dense.
20				SAND, light brown, moist, loose, fine to medium grained, sub-angular to sub-rounded, poorly sorted.
25				CALICHE/SAND, tan, loose, moist.
30				
35				
40				SAND, brown, moist, loose, fine to medium grained, sub-angular to sub-rounded, poorly sorted.
45				SAND/CALICHE, tan and white, moist, medium dense, poorly sorted.
50				
55				End of Hole at 55 feet below ground surface. No groundwater encountered, Hole plugged with hydrated 3/8" bentonite chips.

Disclaimer This bore log is intended for environmental not geotechnical purposes.

ATTACHMENT 4: EPI ASSESSMENT REPORT

ENVIRONMENTAL PLUS, INC. Micro-Blaze Micro-Blaze Out™
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

RP# 1342

2 June 2005

Mr. Larry Johnson
Environmental Engineer Specialist
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, NM 88240

RE: ConocoPhillips SEMU Permian Well 73 Release Site (Ref. #150008)
UL-B (NW¼ of the NE ¼) of Section 19, T20S, R38E
Latitude N 32° 33' 33.8" and Longitude W 103° 11' 20.7" API#30025078220000

Dear Mr. Johnson:

On November 24, 2004, a release of approximately 35 barrels of production fluid occurred as a result of a flow line leak at the above-referenced site. ConocoPhillips recovered approximately 28 barrels of production fluid and utilized a backhoe to back drag the release area to eliminate free-liquid residuals. ConocoPhillips retained Environmental Plus, Inc. (EPI) in January 2005 to delineate the vertical extent of impacted soil at the site. This letter report documents the results of the delineation activities and recommends how to proceed with the remediation of the impacted soil.

Site Background

The site is located in the NW¼ of the NE¼ of Section 19, Township 20 South, Range 38 East at an elevation of approximately 3,543 feet above mean sea level (reference *Figures 1 and 2*). The property is owned by Bob McCasland. A search for area water wells was completed utilizing the *New Mexico Office of the State Engineers* website and a database maintained by the United States Geological Survey (USGS). A total of 18 wells were found to be located either in Section 19 or one of the eight adjacent sections (i.e., sections 17, 18, 20, 29 and 23 of Township 20 South, Range 38 East and sections 13, 24 and 25 of Township 20 South, Range 37 East). The average depth to water in these wells was reported to be approximately 72 feet below ground surface (bgs) and ranged from 50 feet bgs to 82.73 feet bgs. (reference *Table 2*). No water supply wells or bodies of surface water were found to be located within a 1,000-foot radius of the release location, although one well (USGS #1) is located near the 1,000-foot boundary (reference *Figure 2*). Based on available information it was determined that the distance between the contamination and groundwater was between 50 and100 feet. Utilizing this information, it was determined that the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site were as follows:

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	1,000 parts per million

Incident - nPAC0714434227
Application - pPAC0714434336

RP# 1342

P.O. BOX 1558 ••• 2100 AVENUE O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 ••• FAX 505•394•2601

ENVIRONMENTAL PLUS, INC.

Field Work

EPI was on site from February 3, 2005 to advance two soil borings within the perimeter of the release area to delineate the vertical extent of production fluid-impacted soil (reference *Figure 4*). During the advancement of the soil boring, samples were collected at 5-foot intervals with a portion of the sample being placed in a laboratory provided container and the remainder placed in a self sealing polyethylene bag. The samples placed in laboratory provided containers were immediately placed on ice for transport to Environmental Lab of Texas of Odessa, Texas, for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO) and chloride.

The portion of the samples placed in the self-sealing polyethylene bag were placed in a heated environment (i.e., cab of a truck) to allow the volatilization of organic vapors. After the samples had been allowed to equilibrate to ≈70° F, they were analyzed for the presence of organic vapors utilizing a MiniRae® photoionozation detector (PID) equipped with a 9.8 electron-volt (eV) lamp. In addition, the samples were analyzed in the field for the presence of chloride using a LaMotte Chloride Test Kit.

The soil borings were advanced to depths of 10 and 15 feet below ground surface (bgs) and samples were collected at 2-feet, 5-feet, 10-feet, and 15-feet bgs. Field analyses of the samples collected during the advancement of soil boring BH-1 indicated the presence of organic vapors at concentrations ranging from 17.4 parts per million (ppm) at 15 feet bgs to 104 ppm at 2 feet bgs (reference *Table 1*). Field analyses for chloride indicated concentrations ranging from 240 milligrams per kilogram (mg/Kg) at 2 and 15 feet bgs to 1,840 mg/Kg at 5 feet bgs. Field analyses of samples collected during the advancement of soil boring BH-2 indicated the presence of organic vapors at concentrations ranging from 7.2 ppm at 10 feet bgs to 28.4 ppm at 2 feet bgs. Field analyses for chlorides indicated concentrations ranging from 240 mg/Kg at 2 and 10 feet bgs to 480 mg/Kg at 5 feet bgs.

During the advancement of the soil boring, the lithology was defined as sand to a depth of at least 15 feet bgs (reference *Attachment II*).

Analytical Data

Analytical results for the samples collected during the advancement of soil boring BH-1 indicated soil impacted above the NMOCD remedial threshold extends to a depth of between 2 and 5-feet bgs (reference *Table* 1). Analytical results for the samples collected during the advancement of soil boring BH-2 indicated there was no soil impacted above the NMOCD remedial thresholds. The only contaminant reported above the NMOCD remedial threshold for this site was total petroleum hydrocarbons (TPH) in the sample obtained from soil boring BH-1 at a depth of 2-feet bgs. TPH concentrations were reported at 20,500 milligrams per kilogram (mg/Kg) in this sample. Benzene and BTEX concentrations were reported at concentrations below the NMOCD remedial guidelines for all samples.

Chloride concentrations for the samples obtained during the advancement of soil boring BH-1 were reported ranging from 20.5 milligrams per liter (mg/L) at 2-feet bgs to 1,810 mg/L at 5 feet bgs. The reported concentrations are below the New Mexico Water Quality Control Commission's (NMWQCC) chloride standards for groundwater of 250 mg/L for all samples; with the exception of the sample collected at 5-feet bgs (reference *Table 2*).

Chloride concentrations for the samples obtained during the advancement of soil boring BH-2 were reported ranging from 22.2 mg/L at 2-feet bgs to 325 mg/L at 5-feet bgs. The reported concentrations are below the NMWQCC chloride standards for groundwater of 250 mg/L for all samples, with the exception of the sample collected at 5-feet bgs (reference *Table 2*).

Conclusions

Based on field and analytical analyses, soil impacted above the NMOCD remedial thresholds extends to a depth of approximately 5-feet bgs in the vicinity of where soil boring BH-1 was advanced (reference *Figure 4*). The release area is approximately 1,370 square feet in size; however, the lateral extent of impacts above the NMOCD remedial thresholds is limited to the vicinity of where soil boring BH-1 was advanced. The volume of soil that is required to be treated is unknown; however, if the entire release area was excavated to a depth of 5-feet bgs, the volume of soil excavated would be approximately 250 cubic yards (*in situ*). Due to the fact that impacts above the NMOCD remedial thresholds are limited to the vicinity of where soil boring BH-1 was advanced, the volume of impacted soil is actually less than 250 cubic yards.

Chloride concentrations were reported below the NMWQCC standards for groundwater in all but two samples collected during the advancement of the soil borings. The samples exhibiting elevated chloride levels were collected at 5-feet bgs in each of the soil borings and concentrations ranged from 325 mg/Kg (BH-2) to 1,810 mg/Kg (BH-1). Due to the elevated chloride levels reported in the sample collected from soil boring BH-1 at 5-feet bgs and the depth to groundwater in the area, there is the possibility that groundwater could be impacted by chloride.

Recommendations

Based on field and analytical results, it is recommended that soil impacted above the remedial limits within the vicinity of soil boring BH-1 be excavated. The final lateral and vertical extents will be determined via field analyses of soil samples collected during excavation activities. Upon completion of excavation activities, the excavation basin will be sampled (i.e., grab samples collected from the sidewalls and floor) and the samples submitted to an independent laboratory for quantification of BTEX and TPH.

The excavated soil impacted above the NMOCD remedial thresholds can be treated either by (a) transporting it to a State approved land treatment facility and backfilling the excavation with clean soil obtained off-site or (b) blending the soil with clean soil obtained from along the right-of-way until NMOCD remedial goals are achieved. Samples would be collected from the blended soil and analyzed in the field to ascertain when NMOCD guidelines had been achieved and samples submitted to an independent laboratory to verify field analyzes. Upon receipt of analytical results verifying the blending of the soil to NMOCD remedial guidelines or below, the excavation should be backfilled, contoured to allow natural drainage and reseeded.

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at iolness@hotmail.com. Upon your approval, EPI will initiate the next phase of the remediation. All official correspondence should be submitted to John Abney at:

John Abney, SHEaR Specialist
ConocoPhillips
1410 Northwest County Road
Hobbs, NM 88240

(505) 391-3128
John.H.Abney@conocophillips.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain A. Olness, P.G.
Hydrogeologist

cc: John Abney, ConocoPhillips – Hobbs
C. John Coy, ConocoPhillips – Hobbs
Bob McCasland, Property Owner
File

encl. Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map
Figure 4 – Soil Boring Location Map
Table 1 – Summary of Soil Boring Analytical Results
Table 2 – Well Data
Attachment I – Laboratory Results and Chain-of-Custody Form
Attachment II – Soil Boring Logs
Attachment III – Copy of Initial C-141

FIGURES

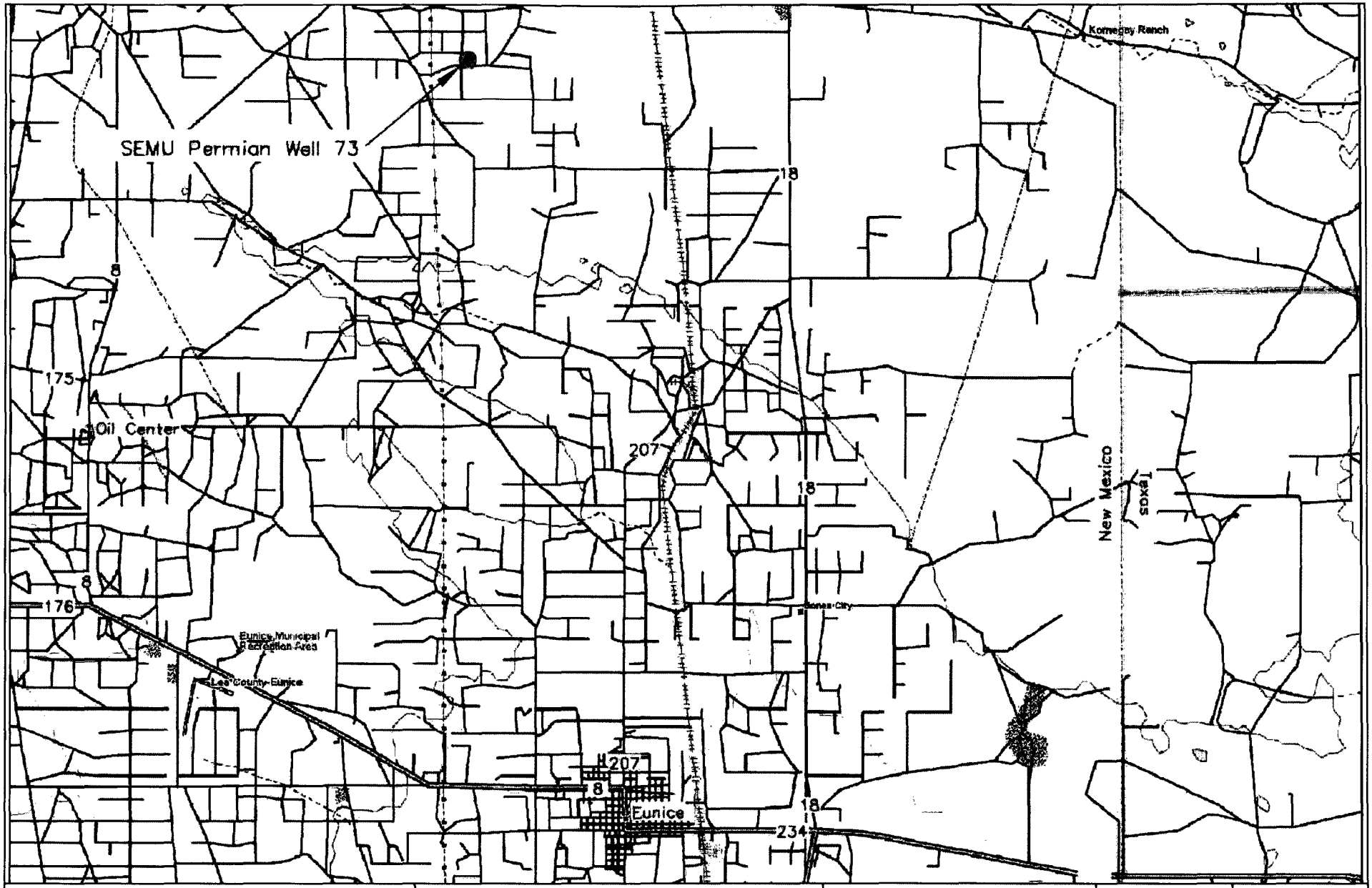


Figure 1 Area Map ConocoPhillips SEMU Permian Well 73	Lea County, New Mexico NW 1/4 of the NE 1/4, Sec. 19, T20S, R38E N 32° 33' 33.8" W 103° 11' 20.7" Elevation: 3,543 feet amsl	DWG By: Iain Olness March 2005 0 1.5 3.0 Miles	REVISED: SHEET 1 of 1

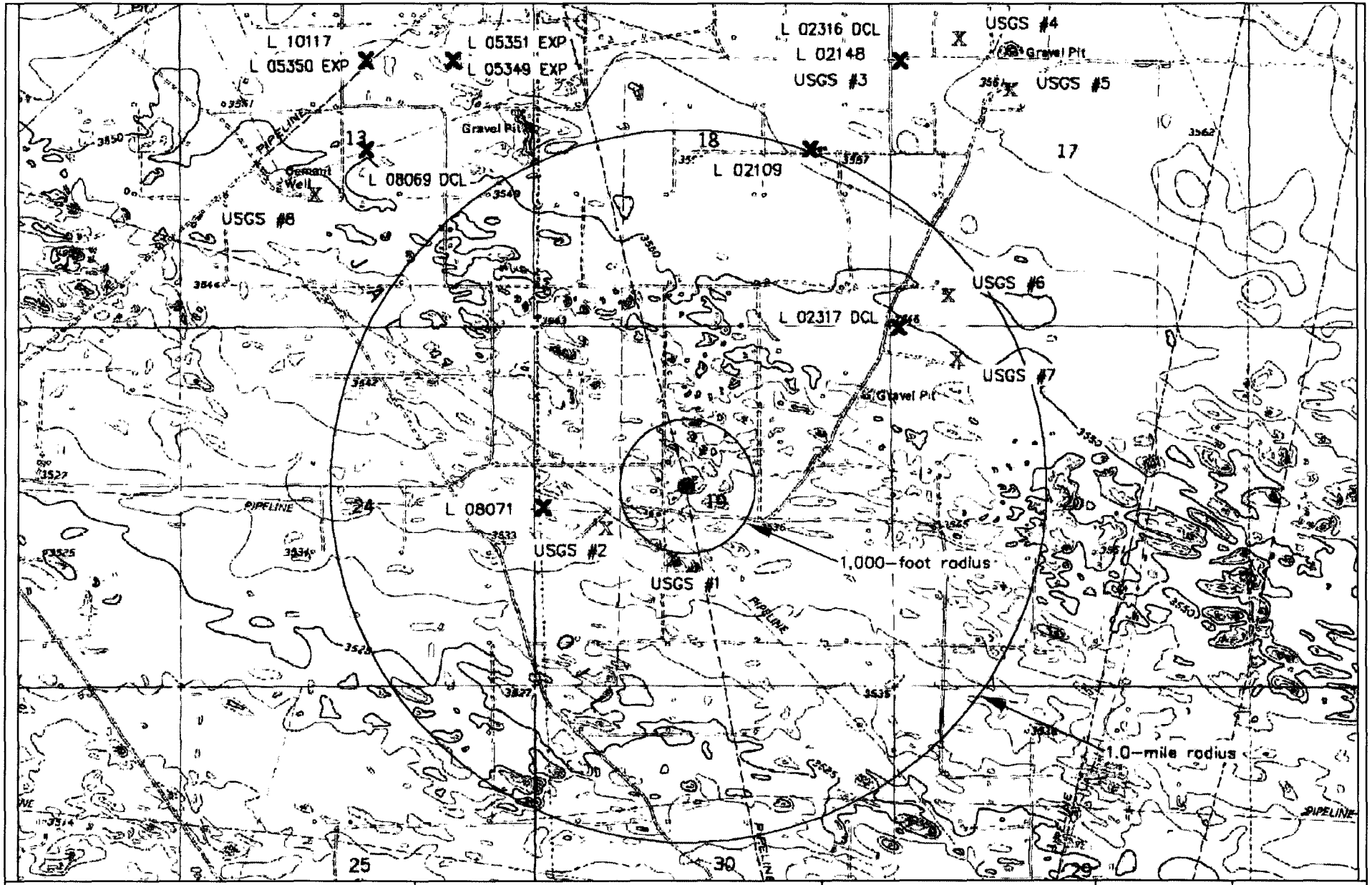


Figure 2 Site and Well Location Map ConocoPhillips SEMU Permian Well 73	Lea County, New Mexico NW 1/4 of the NE 1/4, Sec. 19, T20S, R38E N 32° 33' 33.8" W 103° 11' 20.7" Elevation: 3,543 feet amsl	DWG By: Iain Olness March 2005 0 2,000 4,000 Feet	REVISED: SHEET 1 of 1

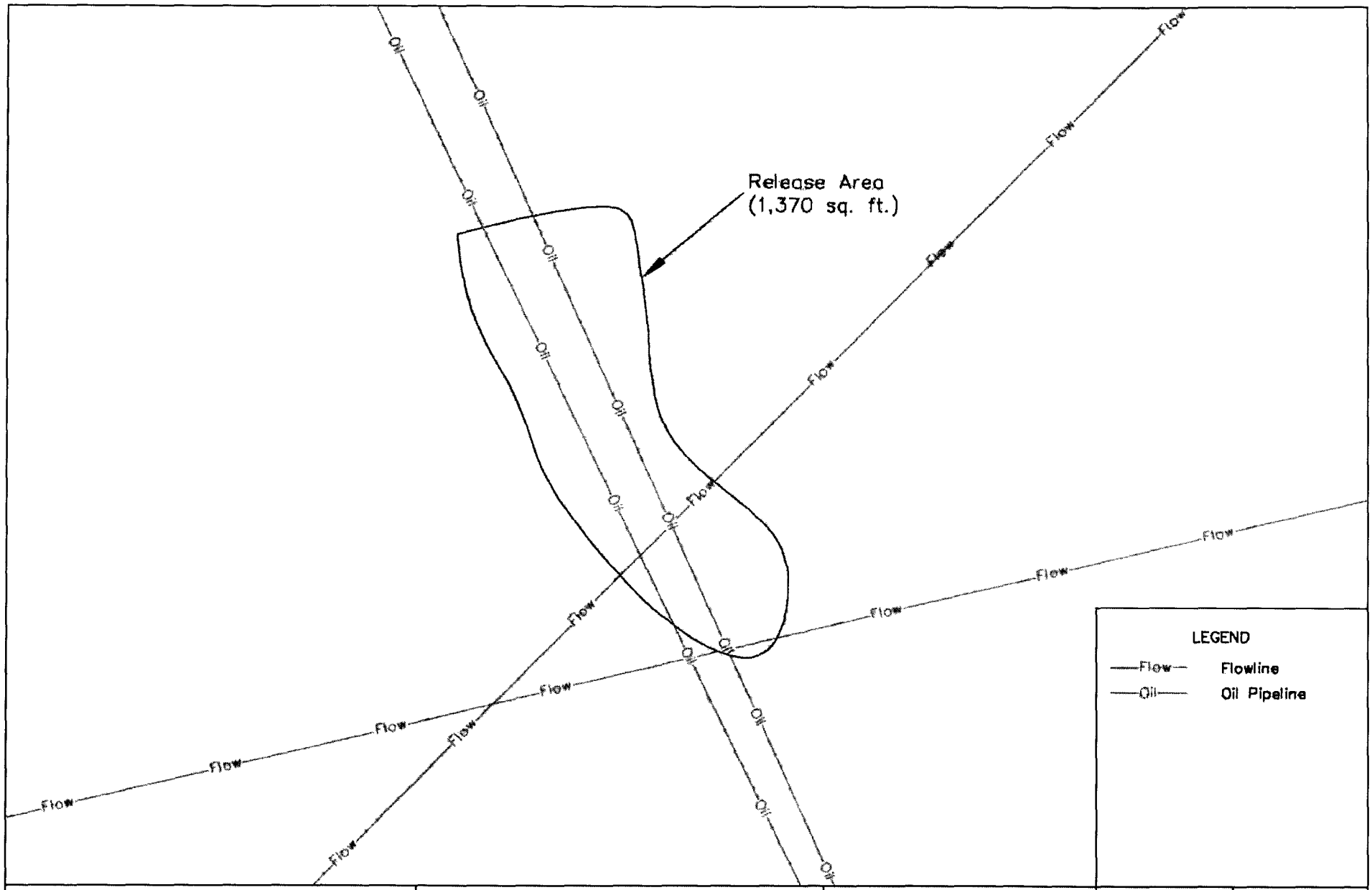


Figure 3 Site Map ConocoPhillips SEMU Permian Well 73	Lea County, New Mexico NW 1/4 of the NE 1/4, Sec. 19, T20S, R38E N 32° 33' 33.8" W 103° 11' 20.7" Elevation: 3,543 feet amsl	DWG By: Iain Olness March 2005 0 20 40 Feet	REVISED: SHEET 1 of 1	N

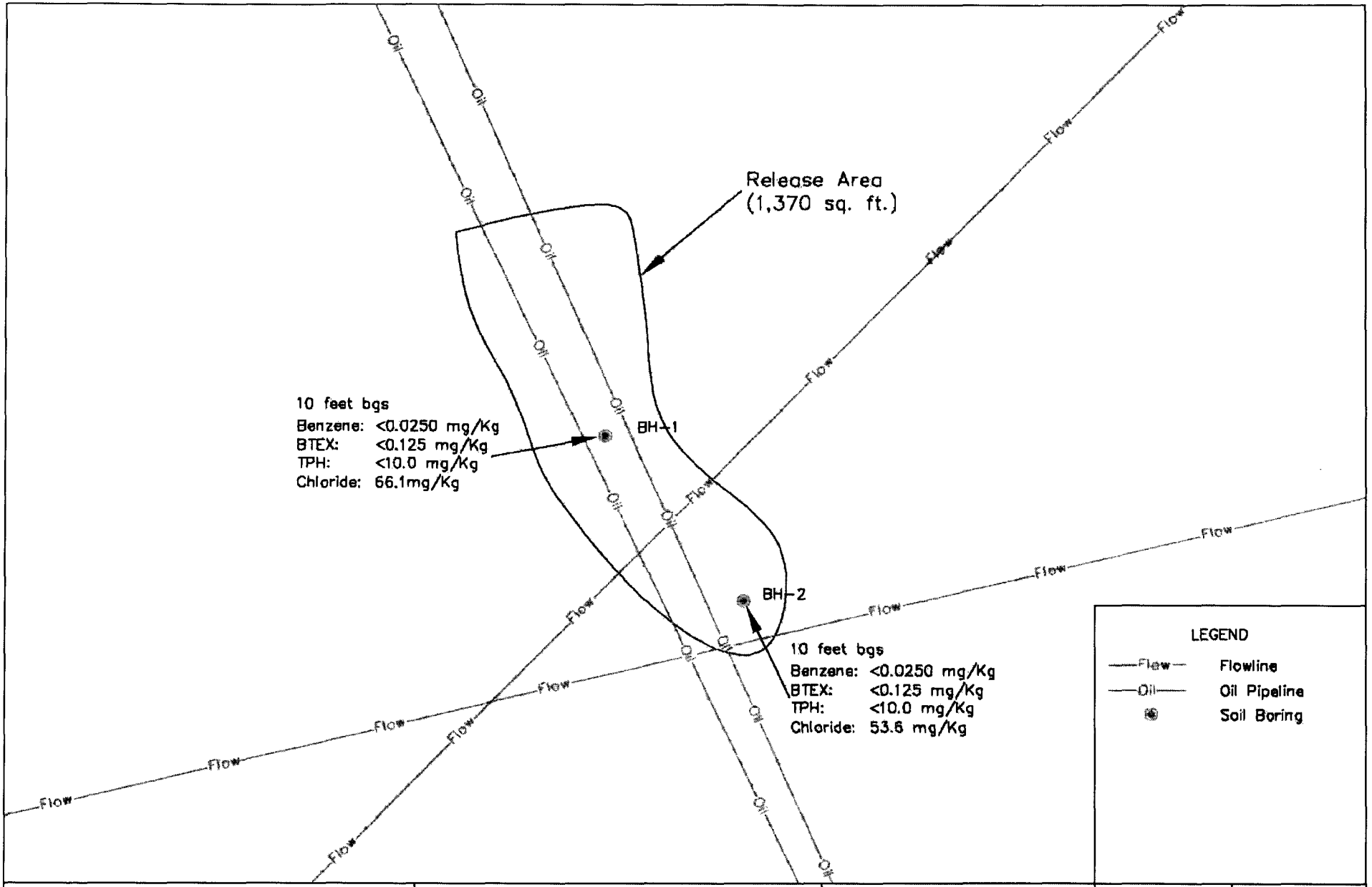


Figure 4 Soil Boring Location Map ConocoPhillips SEMU Permian Well 73	Lea County, New Mexico NW 1/4 of the NE 1/4, Sec. 19, T20S, R38E N 32° 33' 33.8" W 103° 11' 20.7" Elevation: 3,543 feet amsl	DWG By: Iain Olness March 2005	REVISED:	SHEET 1 of 1

TABLES

TABLE 1

Summary of Soil Boring Analytical Results

Conoco Phillips SEMU Permian Well 73 (Ref. #150008)

Soil Boring	Depth (feet)	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
Background	Surface	03-Feb-05	NA	240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH-1	2	03-Feb-05	104	240	0.0503	1.35	3.14	6.91	2.78	14.2	2,900	17,600	**20,500**	20.5
	5	03-Feb-05	74.4	1,840	<0.0250	0.0914	0.355	0.855	0.379	1.68	210	518	728	1,810
	10	03-Feb-05	21.1	320	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	8.48[4]	<10.0	66.1
	15	03-Feb-05	17.4	240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH-2	2	03-Feb-05	28.4	240	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	7.36[4]	154	154	22.2
	5	03-Feb-05	10.3	480	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0	325
	10	03-Feb-05	7.2	240	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0	53.6
NMOCD Remedial Thresholds			**100[3]**		**10**					**50**			**1,000**	**250[5]**

[1] *Bolded values are in excess of the NMOCD Remediation Thresholds*

[2] *NA = Not Analyzed*

[3] *In lieu of laboratory analyes of benzene, toluene, ethylbenzene and total xylenes.*

[4] *Detected, but below the reporting limit; therefore the result is an estimated concentration (CLP J-Flag)*

[5] *Chloride residuals may not be capable of impacting local groundwaterabove the NMWQCCstandard of 250 mg/L*

TABLE 2

Well Data

Conoco Phillips SEMU Permian Well 73 (Ref. #150008)

Well Number	Diversion[A]	Owner	Use	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Depth to Water (ft bgs)

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1)
Shaded well information indicates well location shown on Figure 2
[A] = in acre feet per annum
[B] = Elevation interpolated from USGS topographical map based on referenced location.
DOM = Domestic
STK = Livestock Watering
EXP = Expired
IRR = Irrigation
P = The site was being pumped
quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Iain Olness

Environmental Plus, Incorporated

P.O. Box 1558

Eunice, NM 88231

Project: Conoco Phillips/ SEMU Permian Well 73

Project Number: 150008

Location: None Given

Lab Order Number: 5B09012

Report Date: 02/18/05

ATTACHMENT I

LABORATORY RESULTS AND CHAIN-OF-CUSTODY FORM

Environmental Plus, Incorporated	Project: Conoco Phillips/ SEMU Permian Well 73	Fax: 505-394-2601
P.O. Box 1558	Project Number: 150008	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	02/18/05 08:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 (2')	5B09012-01	Soil	02/03/05 11:00	02/09/05 16:15
BH-1 (5')	5B09012-02	Soil	02/03/05 11:10	02/09/05 16:15
BH-1 (10')	5B09012-03	Soil	02/03/05 12:49	02/09/05 16:15
BH-2 (2')	5B09012-05	Soil	02/03/05 14:10	02/09/05 16:15
BH-2 (5')	5B09012-06	Soil	02/03/05 14:17	02/09/05 16:15
BH-2 (10')	5B09012-07	Soil	02/03/05 14:45	02/09/05 16:15

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P.O. Box 1558	Project Number: 150008	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	02/18/05 08:29

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (2') (5B09012-01) Soil									
Benzene	**0.0503**	0.0250	mg/kg dry	25	EB51409	02/10/05	02/14/05	EPA 8021B	
Toluene	**1.35**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**3.14**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**6.91**	0.0250	"	"	"	"	"	"	
Xylene (o)	**2.78**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*131 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*80.6 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**2900**	50.0	mg/kg dry	5	EB51006	02/10/05	02/10/05	EPA 8015M	
Diesel Range Organics >C12-C35	**17600**	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**20500**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*24.8 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*20.2 %*	*70-130*		"	"	"	"	*S-06*
BH-1 (5') (5B09012-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB51409	02/10/05	02/10/05	EPA 8021B	
Toluene	**0.0914**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**0.355**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**0.855**	0.0250	"	"	"	"	"	"	
Xylene (o)	**0.379**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*110 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**210**	10.0	mg/kg dry	1	EB51006	02/10/05	02/10/05	EPA 8015M	
Diesel Range Organics >C12-C35	**518**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**728**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*84.0 %*	*70-130*		"	"	"	"	
BH-1 (10') (5B09012-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB51409	02/10/05	02/10/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB51006	02/10/05	02/10/05	EPA 8015M	
Diesel Range Organics >C12-C35	**J [8.48]**	10.0	"	"	"	"	"	"	J
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (10') (5B09012-03) Soil									
Surrogate: 1-Chlorooctane		*92.2 %*	*70-130*		*EB51006*	*02/10/05*	*02/10/05*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*77.6 %*	*70-130*		"	"	"	"	
BH-2 (2') (5B09012-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB51409	02/10/05	02/10/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*110 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.4 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**J [7.36]**	10.0	mg/kg dry	1	EB51006	02/10/05	02/10/05	EPA 8015M	J
Diesel Range Organics >C12-C35	**154**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**154**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*89.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*76.8 %*	*70-130*		"	"	"	"	
BH-2 (5') (5B09012-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB51409	02/10/05	02/10/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.9 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.9 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB51006	02/10/05	02/10/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*91.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*74.0 %*	*70-130*		"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-2 (10') (5B09012-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB51409	02/10/05	02/10/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*106 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.1 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB51006	02/10/05	02/10/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*73.6 %*	*70-130*		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (2') (5B09012-01) Soil									
Chloride	**20.5**	5.00	mg/kg	10	EB51717	02/14/05	02/14/05	EPA 300.0	
% Moisture	**1.4**	0.1	%	1	EB51102	02/10/05	02/11/05	% calculation	
BH-1 (5') (5B09012-02) Soil									
Chloride	**1810**	50.0	mg/kg	100	EB51717	02/14/05	02/14/05	EPA 300.0	
% Moisture	**10.1**	0.1	%	1	EB51102	02/10/05	02/11/05	% calculation	
BH-1 (10') (5B09012-03) Soil									
Chloride	**66.1**	5.00	mg/kg	10	EB51717	02/14/05	02/14/05	EPA 300.0	
% Moisture	**6.1**	0.1	%	1	EB51102	02/10/05	02/11/05	% calculation	
BH-2 (2') (5B09012-05) Soil									
Chloride	**22.2**	5.00	mg/kg	10	EB51717	02/14/05	02/14/05	EPA 300.0	
% Moisture	**2.8**	0.1	%	1	EB51102	02/10/05	02/11/05	% calculation	
BH-2 (5') (5B09012-06) Soil									
Chloride	**325**	10.0	mg/kg	20	EB51717	02/14/05	02/14/05	EPA 300.0	
% Moisture	**4.6**	0.1	%	1	EB51102	02/10/05	02/11/05	% calculation	
BH-2 (10') (5B09012-07) Soil									
Chloride	**53.6**	20.0	mg/kg	40	EB51717	02/14/05	02/14/05	EPA 300.0	
% Moisture	**6.8**	0.1	%	1	EB51102	02/10/05	02/11/05	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB51006 - Solvent Extraction (GC)										
Blank (EB51006-BLK1)				Prepared & Analyzed: 02/10/05						
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*47.5*		*mg/kg*	*50.0*		*95.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*37.4*		*"*	*50.0*		*74.8*	*70-130*			
Blank (EB51006-BLK2)				Prepared: 02/10/05 Analyzed: 02/11/05						
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*47.6*		*mg/kg*	*50.0*		*95.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.2*		*"*	*50.0*		*70.4*	*70-130*			
LCS (EB51006-BS1)				Prepared & Analyzed: 02/10/05						
Gasoline Range Organics C6-C12	429	10.0	mg/kg wet	500		85.8	75-125			
Diesel Range Organics >C12-C35	442	10.0	"	500		88.4	75-125			
Total Hydrocarbon C6-C35	871	10.0	"	1000		87.1	75-125			
Surrogate: 1-Chlorooctane	*43.1*		*mg/kg*	*50.0*		*86.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*38.5*		*"*	*50.0*		*77.0*	*70-130*			
LCS (EB51006-BS2)				Prepared: 02/10/05 Analyzed: 02/11/05						
Gasoline Range Organics C6-C12	445	10.0	mg/kg wet	500		89.0	75-125			
Diesel Range Organics >C12-C35	459	10.0	"	500		91.8	75-125			
Total Hydrocarbon C6-C35	904	10.0	"	1000		90.4	75-125			
Surrogate: 1-Chlorooctane	*39.3*		*mg/kg*	*50.0*		*78.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.9*		*"*	*50.0*		*71.8*	*70-130*			
Calibration Check (EB51006-CCV1)				Prepared & Analyzed: 02/10/05						
Gasoline Range Organics C6-C12	489		mg/kg	500		97.8	80-120			
Diesel Range Organics >C12-C35	494		"	500		98.8	80-120			
Total Hydrocarbon C6-C35	983		"	1000		98.3	80-120			
Surrogate: 1-Chlorooctane	*49.3*		*"*	*50.0*		*98.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*38.3*		*"*	*50.0*		*76.6*	*70-130*			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB51006 - Solvent Extraction (GC)										
Calibration Check (EB51006-CCV2)				Prepared: 02/10/05 Analyzed: 02/11/05						
Gasoline Range Organics C6-C12	490		mg/kg	500		98.0	80-120			
Diesel Range Organics >C12-C35	506		"	500		101	80-120			
Total Hydrocarbon C6-C35	996		"	1000		99.6	80-120			
Surrogate: 1-Chlorooctane	*41.2*		*"*	*50.0*		*82.4*	*70-130*			
Surrogate: 1-Chlorooctadecane	*37.7*		*"*	*50.0*		*75.4*	*70-130*			
Matrix Spike (EB51006-MS1)		**Source: 5B09014-01**		Prepared & Analyzed: 02/10/05						
Gasoline Range Organics C6-C12	558	10.0	mg/kg dry	574	ND	97.2	75-125			
Diesel Range Organics >C12-C35	614	10.0	"	574	ND	107	75-125			
Total Hydrocarbon C6-C35	1170	10.0	"	1150	ND	102	75-125			
Surrogate: 1-Chlorooctane	*51.6*		*mg/kg*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*39.5*		*"*	*50.0*		*79.0*	*70-130*			
Matrix Spike (EB51006-MS2)		**Source: 5B09015-04**		Prepared: 02/10/05 Analyzed: 02/11/05						
Gasoline Range Organics C6-C12	491	10.0	mg/kg dry	531	ND	92.5	75-125			
Diesel Range Organics >C12-C35	560	10.0	"	531	ND	105	75-125			
Total Hydrocarbon C6-C35	1050	10.0	"	1060	ND	99.1	75-125			
Surrogate: 1-Chlorooctane	*49.1*		*mg/kg*	*50.0*		*98.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*39.7*		*"*	*50.0*		*79.4*	*70-130*			
Matrix Spike Dup (EB51006-MSD1)		**Source: 5B09014-01**		Prepared & Analyzed: 02/10/05						
Gasoline Range Organics C6-C12	527	10.0	mg/kg dry	574	ND	91.8	75-125	5.71	20	
Diesel Range Organics >C12-C35	604	10.0	"	574	ND	105	75-125	1.64	20	
Total Hydrocarbon C6-C35	1130	10.0	"	1150	ND	98.3	75-125	3.48	20	
Surrogate: 1-Chlorooctane	*48.5*		*mg/kg*	*50.0*		*97.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*36.4*		*"*	*50.0*		*72.8*	*70-130*			
Matrix Spike Dup (EB51006-MSD2)		**Source: 5B09015-04**		Prepared: 02/10/05 Analyzed: 02/11/05						
Gasoline Range Organics C6-C12	516	10.0	mg/kg dry	531	ND	97.2	75-125	4.97	20	
Diesel Range Organics >C12-C35	546	10.0	"	531	ND	103	75-125	2.53	20	
Total Hydrocarbon C6-C35	1060	10.0	"	1060	ND	100	75-125	0.948	20	
Surrogate: 1-Chlorooctane	*49.9*		*mg/kg*	*50.0*		*99.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*38.0*		*"*	*50.0*		*76.0*	*70-130*			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB51409 - EPA 5030C (GC)										
Blank (EB51409-BLK1)				Prepared & Analyzed: 02/10/05						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*94.0*		*ug/kg*	*100*		*94.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*108*		*"*	*100*		*108*	*80-120*			
LCS (EB51409-BS1)				Prepared & Analyzed: 02/10/05						
Benzene	100		ug/kg	100		100	80-120			
Toluene	103		"	100		103	80-120			
Ethylbenzene	117		"	100		117	80-120			
Xylene (p/m)	238		"	200		119	80-120			
Xylene (o)	113		"	100		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*117*		*"*	*100*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*120*		*"*	*100*		*120*	*80-120*			
Calibration Check (EB51409-CCV1)				Prepared: 02/10/05 Analyzed: 02/11/05						
Benzene	102		ug/kg	100		102	80-120			
Toluene	97.6		"	100		97.6	80-120			
Ethylbenzene	99.1		"	100		99.1	80-120			
Xylene (p/m)	214		"	200		107	80-120			
Xylene (o)	106		"	100		106	80-120			
Surrogate: a,a,a-Trifluorotoluene	*118*		*"*	*100*		*118*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*103*		*"*	*100*		*103*	*80-120*			
Matrix Spike (EB51409-MS1)	**Source: 5B10010-01**			Prepared & Analyzed: 02/10/05						
Benzene	100		ug/kg	100	ND	100	80-120			
Toluene	98.9		"	100	ND	98.9	80-120			
Ethylbenzene	105		"	100	ND	105	80-120			
Xylene (p/m)	227		"	200	ND	114	80-120			
Xylene (o)	111		"	100	ND	111	80-120			
Surrogate: a,a,a-Trifluorotoluene	*116*		*"*	*100*		*116*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*111*		*"*	*100*		*111*	*80-120*			

Environmental Plus, Incorporated	Project: Conoco Phillips/ SEMU Permian Well 73	Fax: 505-394-2601
P.O. Box 1558	Project Number: 150008	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	02/18/05 08:29

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB51409 - EPA 5030C (GC)										
Matrix Spike Dup (EB51409-MSD1)	**Source: 5B10010-01**		Prepared: 02/10/05 Analyzed: 02/11/05							
Benzene	91.0		ug/kg	100	ND	91.0	80-120	9.42	20	
Toluene	87.3		"	100	ND	87.3	80-120	12.5	20	
Ethylbenzene	91.4		"	100	ND	91.4	80-120	13.8	20	
Xylene (p/m)	200		"	200	ND	100	80-120	13.1	20	
Xylene (o)	100		"	100	ND	100	80-120	10.4	20	
Surrogate: a,a,a-Trifluorotoluene	*107*		"	*100*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*117*		"	*100*		*117*	*80-120*			

Environmental Plus, Incorporated	Project: Conoco Phillips/ SEMU Permian Well 73	Fax: 505-394-2601
P.O. Box 1558	Project Number: 150008	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	02/18/05 08:29

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB51102 - General Preparation (Prep)										
Blank (EB51102-BLK1)				Prepared: 02/10/05 Analyzed: 02/11/05						
% Moisture	ND	0.1	%							
Duplicate (EB51102-DUP1)		**Source: 5B09012-01**		Prepared: 02/10/05 Analyzed: 02/11/05						
% Moisture	1.5	0.1	%		1.4			6.90	20	
Batch EB51717 - Water Extraction										
Blank (EB51717-BLK1)				Prepared & Analyzed: 02/14/05						
Chloride	ND	0.500	mg/kg							
LCS (EB51717-BS1)				Prepared & Analyzed: 02/14/05						
Chloride	9.45		mg/L	10.0		94.5	80-120			
LCS Dup (EB51717-BSD1)				Prepared & Analyzed: 02/14/05						
Chloride	9.31		mg/L	10.0		93.1	80-120	1.49	20	
Calibration Check (EB51717-CCV1)				Prepared & Analyzed: 02/14/05						
Chloride	9.74		mg/L	10.0		97.4	80-120			
Duplicate (EB51717-DUP1)		**Source: 5B09012-02**		Prepared & Analyzed: 02/14/05						
Chloride	1790	50.0	mg/kg		1810			1.11	20	

Environmental Plus, Incorporated	Project: Conoco Phillips/ SEMU Permian Well 73	Fax: 505-394-2601
P.O. Box 1558	Project Number: 150008	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	02/18/05 08:29

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.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 2-18-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

Environmental Labs of Texas

Chain of Custody Form

12600 West I-20 East, Odessa, TX 79763
(915) 563-1800 FAX: (915) 563-1713

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Conoco Phillips
Facility Name	SEMU Permian Well 73
Project Reference	150008
EPI Sampler Name	Manuel Gonzales

Attn: Iain Olness
PO Box 1558,
Eunice, NM 88231-1558

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH
5B09012-																						
-01 1	BH-1 (2')	C	1			X					X		3-Feb	11:00	X	X	X		See Remarks			
-02 2	BH-1 (5')	C	1			X					X		3-Feb	11:10	X	X	X					
-03 3	BH-1 (10')	C	1			X					X		3-Feb	12:49	X	X	X					
-04 4	BH-1 (15')	C	1			X					X		3-Feb	13:12	X	X	X					
-05 5	BH-2 (2')	C	1			X					X		3-Feb	14:10	X	X	X					
-06 6	BH-2 (5')	C	1			X					X		3-Feb	14:17	X	X	X					
-07 7	BH-2 (10')	C	1			X					X		3-Feb	14:45	X	X	X					
8																						
9																						
10																						

Sampler Relinquished: Manuel Gonzales	Date 2-9 Time 8:00	Received By:
Relinquished by:	Date 2-9 Time 16:15	Received By: (lab staff)
Delivered by:	4.0°C Sample Cool & Intact Yes No	Checked By: JMM

E-mail results to: iolness@hotmail.com

REMARKS: Only analyze Sample BH-1 (15') if analytical results for sample BH-1 (10') indicate TPH concentrations >100 ppm and/or benzene cocnentrations >10 ppm and/or BTEX concentrations > 50 ppm. If chloride concentrations in sample BH-1 (10') are >500 ppm, then analyze sample BH-1 (15') for chlorides. ** ANY QUESTIONS, PLEASE CONTACT IAIN**

4oz jar

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Environmental Plus

Date/Time: 2/9/05 16:45

Order #: 5B09012

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	4.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	Yes	No	(Not present)
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Yes)	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

_____

_____

_____

ATTACHMENT II

SOIL BORING LOGS

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 150008

Project Name: Conoco Phillips SEMU Permian Well 73

Location: UL-B, Section 19, Township 20 South, Range 38 East

Boring Number: BH-1 | Surface Elevation: 3,543

Start Date: 02/03/05 Time: 1055 hrs

Completion Date: 02/03/05 Time: 1312 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1100	Cuttings	NA	Da	104	SP		SAND, Oil Stained
						5	
1110	CS	10	Da	74.4	SP		SAND, Oil Stained
						10	
1249	CS	12	Da	21.1	SP		SAND
						15	
1312	CS	8	Da	17.4	SP		SAND, Red
							End of Boring at 17.0'
						20	
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
02/03/05	-	-	-	-	-
-	-	-	-	-	-	

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: MG

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 150008
Project Name: Conoco Phillips SEMU Permian Well 73
Location: UL-B, Section 19, Township 20 South, Range 38 East
Boring Number: SB-2 Surface Elevation: 3,548

Start Date: 02/03/05 Time: 1405 hrs
Completion Date: 02/03/05 Time: 1610 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1410	Cuttings	NA	Da	28.4	SP		SAND, Brown
						5	
1417	CS	9	Da	10.3	SP		SAND, White
						10	
1445	CS	12	Da	7.2	SP		SAND, White
							End of Boring at 12.0'
						15	
						20	
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
02/03/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5' ID
Backfill Method: Bentonite
Field Representative: MG

ATTACHMENT III

COPY OF INITIAL C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-14
Revised October 10, 20

Submit 2 Copies to appropria
District Office in accordan
with Rule 116 on bac
side of for

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Rep

Name of Company ConocoPhillips Company	Contact John Abney
Address 4001 Penbrook Street Odessa, TX 79762	Telephone No. (505)391-3128
Facility Name SEMU Permian #73	Facility Type Oil Well

Surface Owner Bob McCasland	Mineral Owner BLM	Lease No. 031670B

LOCATION OF RELEASE

API # 30025078220000

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	19	20S	38E	660	North	1980	East	

Latitude 32 33.561 Longitude 103 11.324

NATURE OF RELEASE

Type of Release Oil and Produced water	Volume of Release 35 barrels / Volume Recovered 28 barrels
Source of Release Flowline	Date and Hour of Occurrence 11/24/04 Date and Hour of Discovery 11/24/04
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Sylvia Dickey (via voice mail) NMOCD
By Whom? John Abney	Date and Hour 11/24/04 4:10 pm
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA

If a Watercourse was Impacted, Describe Fully.*
NA

RP# 1342

Describe Cause of Problem and Remedial Action Taken.*
Internal corrosion on flowline. Line was clamped for the weekend and then replaced 2 joints of pipe on Monday 11/29/04.

Describe Area Affected and Cleanup Action Taken.*
The area affected is 55' X 25' all free liquid was picked up. The site will have to be assessed to determine the appropriate remeditation necessary.

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

Signature: John Abney	OIL CONSERVATION DIVISION
Printed Name: John Abney	Approved by District Supervisor: ENVIRO ENGR
Title: SHEaR Specialist	Approval Date: 5-23-07 / Expiration Date:
E-mail Address: john.h.abney@conocophillips.com	Conditions of Approval: SUBMIT FINAL (SIGNED) / Attached ☐
Date: 11/30/2004 Phone: (505)391-3128	

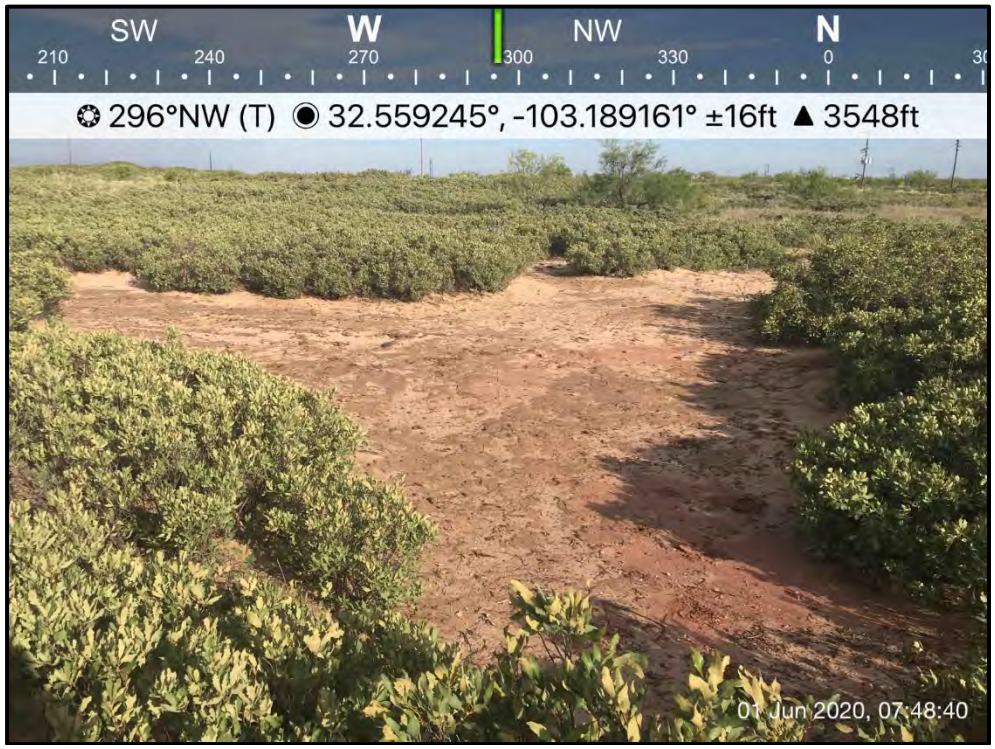
Attach Additional Sheets If Necessary

C-141 W/ CLOSURE RESULTS ATTACHED

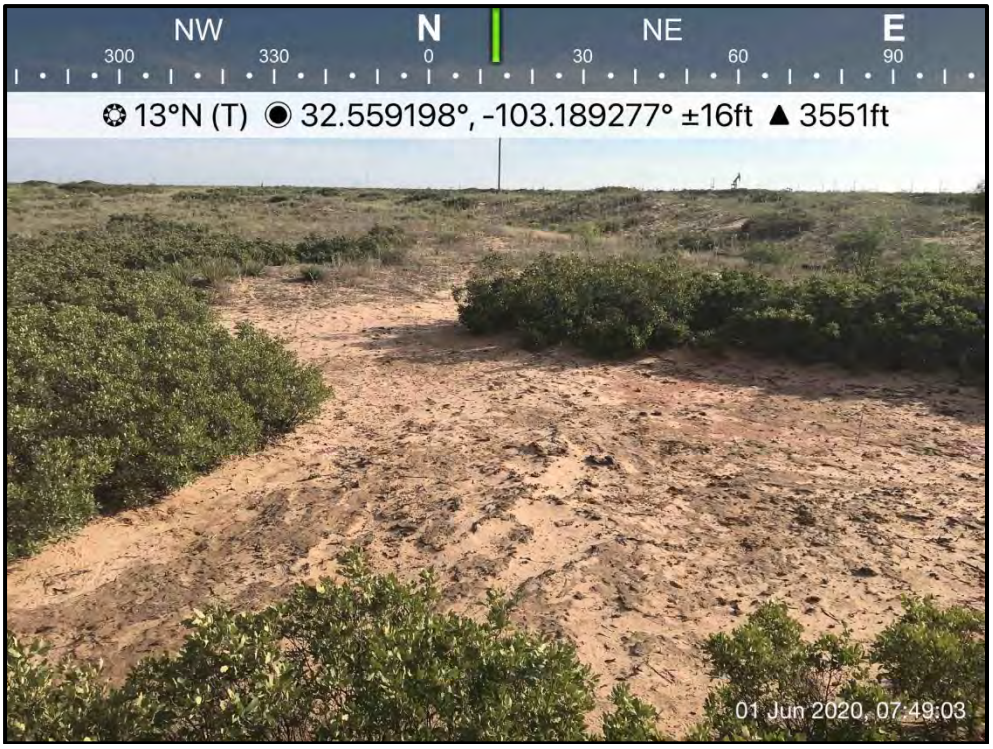
RP# 1342

ATTACHMENT 5: PHOTOGRAPHIC DOCUMENTATION

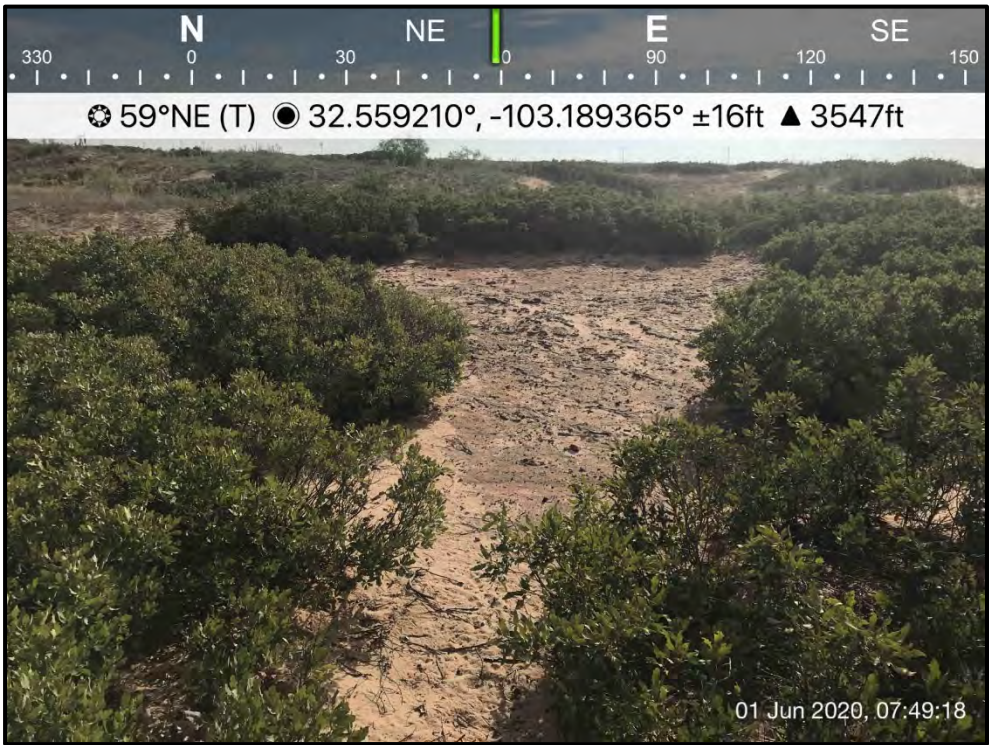
TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing south of release area.	1
	SITE NAME	SEMU Permian #73 Flowline Release	6/1/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northwest of release area.	2
	SITE NAME	SEMU Permian #73 Flowline Release	6/1/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing north of release area.	3
	SITE NAME	SEMU Permian #73 Flowline Release	6/1/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northeast of release area.	4
	SITE NAME	SEMU Permian #73 Flowline Release	6/1/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing NNE Excavation.	5
	SITE NAME	SEMU Permian #73 Flowline Release	11/29/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing East Excavation.	6
	SITE NAME	SEMU Permian #73 Flowline Release	11/29/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing South Excavation.	7
	SITE NAME	SEMU Permian #73 Flowline Release	11/29/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing SW Excavation.	8
	SITE NAME	SEMU Permian #73 Flowline Release	11/29/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing North Post Remediation.	9
	SITE NAME	SEMU Permian #73 Flowline Release	1/09/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing NW Post Remediation.	10
	SITE NAME	SEMU Permian #73 Flowline Release	1/09/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing WSW Post Remediation.	11
	SITE NAME	SEMU Permian #73 Flowline Release	1/09/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-03272	DESCRIPTION	View facing South Post Remediation.	12
	SITE NAME	SEMU Permian #73 Flowline Release	1/09/2024

ATTACHMENT 6: LABORATORY ANALYTICAL DATA

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 23, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1283206
Samples Received:	11/07/2020
Project Number:	212C-MD-02334
Description:	SEMU Permian #73 Flowline (1RP-1342)

Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701

Entire Report Reviewed By: Erica McNeese

Erica McNeese
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

TABLE OF CONTENTS

AH-1 (0-1') L1283206-01 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 12:00 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 18:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 07:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 14:55	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	50	11/14/20 21:33	11/15/20 13:25	JN	Mt. Juliet, TN

AH-1 (1-2') L1283206-02 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 12:10 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 18:36	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 07:22	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 15:15	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	50	11/14/20 21:33	11/15/20 13:38	JN	Mt. Juliet, TN

AH-1 (2-3') L1283206-03 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 12:20 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 18:55	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 07:43	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 15:34	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	50	11/14/20 21:33	11/16/20 23:33	JDG	Mt. Juliet, TN

AH-1 (3-4') L1283206-04 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 12:30 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 19:05	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 08:04	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 15:53	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	20	11/14/20 21:33	11/15/20 17:07	JN	Mt. Juliet, TN

AH-1 (4-5') L1283206-05 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 12:40 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 19:14	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 09:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 16:12	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	5	11/14/20 21:33	11/15/20 12:13	JDG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

AH-1 (5-6') L1283206-06 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 12:50 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 19:43	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 09:46	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 16:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 16:28	JN	Mt. Juliet, TN

AH-1 (6-7') L1283206-07 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 13:00 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 19:52	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 10:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 16:50	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 16:54	JN	Mt. Juliet, TN

AH-1 (7-8') L1283206-08 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 13:20 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 20:02	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 10:28	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 17:09	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 16:02	JN	Mt. Juliet, TN

AH-1 (8-9') L1283206-09 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 13:40 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	5	11/11/20 12:59	11/11/20 20:11	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 10:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 17:28	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 13:04	JDG	Mt. Juliet, TN

AH-1 (9-10') L1283206-10 Solid

Collected by: Adrian Garcia | Collected date/time: 11/05/20 14:00 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	5	11/11/20 12:59	11/11/20 20:21	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 11:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 17:47	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 13:18	JDG	Mt. Juliet, TN

AH-2 (0-1') L1283206-11 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:10 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 20:30	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 11:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 18:06	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 11:06	JDG	Mt. Juliet, TN

AH-2 (1-2') L1283206-12 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:20 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 20:40	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 11:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/11/20 13:58	11/12/20 18:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 11:33	JDG	Mt. Juliet, TN

AH-2 (2-3') L1283206-13 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:21 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 20:49	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 12:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/12/20 22:12	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 11:20	JDG	Mt. Juliet, TN

AH-3 (0-1') L1283206-14 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:22 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575380	1	11/13/20 03:45	11/13/20 03:54	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 20:59	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 12:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/12/20 22:31	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/17/20 23:40	TJD	Mt. Juliet, TN

AH-3 (1-2') L1283206-15 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:23 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 21:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 12:55	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/12/20 22:51	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 12:12	JDG	Mt. Juliet, TN

AH-3 (2-3') L1283206-16 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:24 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 21:37	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/11/20 13:58	11/12/20 13:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/12/20 23:10	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 12:25	JDG	Mt. Juliet, TN

AH-4 (0-1') L1283206-17 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:25 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 21:46	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575601	1	11/11/20 13:58	11/13/20 03:19	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/12/20 23:29	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 12:38	JDG	Mt. Juliet, TN

AH-4 (1-2') L1283206-18 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:26 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 21:56	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575601	1	11/11/20 13:58	11/13/20 03:40	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/12/20 23:48	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 11:59	JDG	Mt. Juliet, TN

AH-4 (2-3') L1283206-19 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:27 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574603	1	11/11/20 12:59	11/11/20 22:06	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575601	1	11/11/20 13:58	11/13/20 04:01	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/13/20 00:07	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/16/20 10:40	JDG	Mt. Juliet, TN

AH-5 (0-1') L1283206-20 Solid

Collected by: Adrian Garcia | Collected date/time: 11/04/20 14:28 | Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574604	1	11/15/20 15:20	11/15/20 20:26	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575601	1	11/11/20 13:58	11/13/20 04:22	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/13/20 00:26	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/17/20 23:27	TJD	Mt. Juliet, TN

AH-5 (1-2') L1283206-21 Solid

Collected by: Adrian Garcia
Collected date/time: 11/04/20 14:30
Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574604	1	11/15/20 15:20	11/15/20 20:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575601	1	11/11/20 13:58	11/13/20 04:43	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/13/20 00:45	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/17/20 23:01	TJD	Mt. Juliet, TN

AH-5 (2-3') L1283206-22 Solid

Collected by: Adrian Garcia
Collected date/time: 11/04/20 14:35
Received date/time: 11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575382	1	11/13/20 03:33	11/13/20 03:43	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1574604	1	11/15/20 15:20	11/15/20 21:13	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575601	1	11/11/20 13:58	11/13/20 05:04	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575500	1	11/11/20 13:58	11/13/20 01:04	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576942	1	11/15/20 16:54	11/17/20 23:14	TJD	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Erica McNeese
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.3		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.26	20.1	1	11/11/2020 18:08	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	11/12/2020 07:01	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*107*			*77.0-120*		*11/12/2020 07:01*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000473	0.00101	1	11/12/2020 14:55	WG1575403
Toluene	U		0.00132	0.00507	1	11/12/2020 14:55	WG1575403
Ethylbenzene	U		0.000747	0.00253	1	11/12/2020 14:55	WG1575403
Total Xylenes	U		0.000892	0.00659	1	11/12/2020 14:55	WG1575403
(S) Toluene-d8	*110*			*75.0-131*		*11/12/2020 14:55*	WG1575403
(S) 4-Bromofluorobenzene	*92.9*			*67.0-138*		*11/12/2020 14:55*	WG1575403
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*		*11/12/2020 14:55*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	311		81.1	201	50	11/15/2020 13:25	WG1576739
C28-C40 Oil Range	1180		13.8	201	50	11/15/2020 13:25	WG1576739
(S) o-Terphenyl	*68.8*	J7		*18.0-148*		*11/15/2020 13:25*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.4		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.45	20.5	1	11/11/2020 18:36	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	11/12/2020 07:22	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*11/12/2020 07:22*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000492	0.00105	1	11/12/2020 15:15	WG1575403
Toluene	U		0.00137	0.00527	1	11/12/2020 15:15	WG1575403
Ethylbenzene	U		0.000777	0.00264	1	11/12/2020 15:15	WG1575403
Total Xylenes	U		0.000928	0.00685	1	11/12/2020 15:15	WG1575403
(S) Toluene-d8	*127*			*75.0-131*		*11/12/2020 15:15*	WG1575403
(S) 4-Bromofluorobenzene	*94.4*			*67.0-138*		*11/12/2020 15:15*	WG1575403
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*11/12/2020 15:15*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1170		82.7	205	50	11/15/2020 13:38	WG1576739
C28-C40 Oil Range	2890		14.1	205	50	11/15/2020 13:38	WG1576739
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*11/15/2020 13:38*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.3		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.36	20.3	1	11/11/2020 18:55	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	11/12/2020 07:43	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*11/12/2020 07:43*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000483	0.00103	1	11/12/2020 15:34	WG1575403
Toluene	U		0.00135	0.00517	1	11/12/2020 15:34	WG1575403
Ethylbenzene	U		0.000763	0.00259	1	11/12/2020 15:34	WG1575403
Total Xylenes	0.000983	J	0.000911	0.00673	1	11/12/2020 15:34	WG1575403
(S) Toluene-d8	*102*			*75.0-131*		*11/12/2020 15:34*	WG1575403
(S) 4-Bromofluorobenzene	*82.9*			*67.0-138*		*11/12/2020 15:34*	WG1575403
(S) 1,2-Dichloroethane-d4	*93.8*			*70.0-130*		*11/12/2020 15:34*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	247		81.9	203	50	11/16/2020 23:33	WG1576739
C28-C40 Oil Range	968		13.9	203	50	11/16/2020 23:33	WG1576739
(S) o-Terphenyl	*84.3*	J7		*18.0-148*		*11/16/2020 23:33*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.5		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.34	20.3	1	11/11/2020 19:05	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.102	1	11/12/2020 08:04	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*107*			*77.0-120*		*11/12/2020 08:04*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000482	0.00103	1	11/12/2020 15:53	WG1575403
Toluene	U		0.00134	0.00516	1	11/12/2020 15:53	WG1575403
Ethylbenzene	U		0.000760	0.00258	1	11/12/2020 15:53	WG1575403
Total Xylenes	U		0.000907	0.00670	1	11/12/2020 15:53	WG1575403
(S) Toluene-d8	*117*			*75.0-131*		*11/12/2020 15:53*	WG1575403
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*		*11/12/2020 15:53*	WG1575403
(S) 1,2-Dichloroethane-d4	*94.1*			*70.0-130*		*11/12/2020 15:53*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	134		32.7	81.2	20	11/15/2020 17:07	WG1576739
C28-C40 Oil Range	446		5.57	81.2	20	11/15/2020 17:07	WG1576739
(S) o-Terphenyl	*72.7*	J7		*18.0-148*		*11/15/2020 17:07*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.0		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.39	20.4	1	11/11/2020 19:14	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	11/12/2020 09:25	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*108*			*77.0-120*		*11/12/2020 09:25*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000486	0.00104	1	11/12/2020 16:12	WG1575403
Toluene	U		0.00135	0.00521	1	11/12/2020 16:12	WG1575403
Ethylbenzene	U		0.000768	0.00260	1	11/12/2020 16:12	WG1575403
Total Xylenes	U		0.000917	0.00677	1	11/12/2020 16:12	WG1575403
(S) Toluene-d8	*110*			*75.0-131*		*11/12/2020 16:12*	WG1575403
(S) 4-Bromofluorobenzene	*93.6*			*67.0-138*		*11/12/2020 16:12*	WG1575403
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/12/2020 16:12*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	21.6		8.22	20.4	5	11/15/2020 12:13	WG1576739
C28-C40 Oil Range	91.4		1.40	20.4	5	11/15/2020 12:13	WG1576739
(S) o-Terphenyl	*69.1*			*18.0-148*		*11/15/2020 12:13*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.5		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.34	20.3	1	11/11/2020 19:43	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.102	1	11/12/2020 09:46	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*11/12/2020 09:46*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000481	0.00103	1	11/12/2020 16:31	WG1575403
Toluene	U		0.00134	0.00515	1	11/12/2020 16:31	WG1575403
Ethylbenzene	U		0.000759	0.00258	1	11/12/2020 16:31	WG1575403
Total Xylenes	U		0.000907	0.00670	1	11/12/2020 16:31	WG1575403
(S) Toluene-d8	*122*			*75.0-131*		*11/12/2020 16:31*	WG1575403
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*11/12/2020 16:31*	WG1575403
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*11/12/2020 16:31*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	9.91		1.63	4.06	1	11/15/2020 16:28	WG1576739
C28-C40 Oil Range	24.7		0.278	4.06	1	11/15/2020 16:28	WG1576739
(S) o-Terphenyl	*73.9*			*18.0-148*		*11/15/2020 16:28*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.1		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.38	20.4	1	11/11/2020 19:52	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	11/12/2020 10:07	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*107*			*77.0-120*		*11/12/2020 10:07*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000485	0.00104	1	11/12/2020 16:50	WG1575403
Toluene	U		0.00135	0.00519	1	11/12/2020 16:50	WG1575403
Ethylbenzene	U		0.000766	0.00260	1	11/12/2020 16:50	WG1575403
Total Xylenes	U		0.000914	0.00675	1	11/12/2020 16:50	WG1575403
(S) Toluene-d8	*118*			*75.0-131*		*11/12/2020 16:50*	WG1575403
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/12/2020 16:50*	WG1575403
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/12/2020 16:50*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	8.08		1.64	4.08	1	11/15/2020 16:54	WG1576739
C28-C40 Oil Range	19.4		0.279	4.08	1	11/15/2020 16:54	WG1576739
(S) o-Terphenyl	*70.8*			*18.0-148*		*11/15/2020 16:54*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.57	20.8	1	11/11/2020 20:02	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0368	B J	0.0226	0.104	1	11/12/2020 10:28	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*109*			*77.0-120*		*11/12/2020 10:28*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000505	0.00108	1	11/12/2020 17:09	WG1575403
Toluene	U		0.00141	0.00541	1	11/12/2020 17:09	WG1575403
Ethylbenzene	U		0.000797	0.00270	1	11/12/2020 17:09	WG1575403
Total Xylenes	U		0.000951	0.00703	1	11/12/2020 17:09	WG1575403
(S) Toluene-d8	*112*			*75.0-131*		*11/12/2020 17:09*	WG1575403
(S) 4-Bromofluorobenzene	*86.9*			*67.0-138*		*11/12/2020 17:09*	WG1575403
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*		*11/12/2020 17:09*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	12.6		1.68	4.16	1	11/15/2020 16:02	WG1576739
C28-C40 Oil Range	29.7		0.285	4.16	1	11/15/2020 16:02	WG1576739
(S) o-Terphenyl	*56.2*			*18.0-148*		*11/15/2020 16:02*	WG1576739

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		48.3	105	5	11/11/2020 20:11	WG1574603

Sample Narrative:

L1283206-09 WG1574603: diluted due to matrix

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0228	0.105	1	11/12/2020 10:49	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*109*			*77.0-120*		*11/12/2020 10:49*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000514	0.00110	1	11/12/2020 17:28	WG1575403
Toluene	U		0.00143	0.00550	1	11/12/2020 17:28	WG1575403
Ethylbenzene	U		0.000810	0.00275	1	11/12/2020 17:28	WG1575403
Total Xylenes	U		0.000968	0.00715	1	11/12/2020 17:28	WG1575403
(S) Toluene-d8	*113*			*75.0-131*		*11/12/2020 17:28*	WG1575403
(S) 4-Bromofluorobenzene	*91.4*			*67.0-138*		*11/12/2020 17:28*	WG1575403
(S) 1,2-Dichloroethane-d4	*97.5*			*70.0-130*		*11/12/2020 17:28*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.69	4.20	1	11/16/2020 13:04	WG1576942
C28-C40 Oil Range	6.39		0.288	4.20	1	11/16/2020 13:04	WG1576942
(S) o-Terphenyl	*34.8*			*18.0-148*		*11/16/2020 13:04*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		47.9	104	5	11/11/2020 20:21	WG1574603

Sample Narrative:

L1283206-10 WG1574603: diluted due to matrix

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	11/12/2020 11:10	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*		*11/12/2020 11:10*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000506	0.00108	1	11/12/2020 17:47	WG1575403
Toluene	U		0.00141	0.00542	1	11/12/2020 17:47	WG1575403
Ethylbenzene	U		0.000799	0.00271	1	11/12/2020 17:47	WG1575403
Total Xylenes	U		0.000954	0.00704	1	11/12/2020 17:47	WG1575403
(S) Toluene-d8	*133*	J1		*75.0-131*		*11/12/2020 17:47*	WG1575403
(S) 4-Bromofluorobenzene	*90.9*			*67.0-138*		*11/12/2020 17:47*	WG1575403
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*11/12/2020 17:47*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.10	J	1.68	4.17	1	11/16/2020 13:18	WG1576942
C28-C40 Oil Range	14.5		0.285	4.17	1	11/16/2020 13:18	WG1576942
(S) o-Terphenyl	*40.9*			*18.0-148*		*11/16/2020 13:18*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.7		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.23	20.1	1	11/11/2020 20:30	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/12/2020 11:31	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*11/12/2020 11:31*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	11/12/2020 18:06	WG1575403
Toluene	U		0.00131	0.00503	1	11/12/2020 18:06	WG1575403
Ethylbenzene	U		0.000741	0.00251	1	11/12/2020 18:06	WG1575403
Total Xylenes	U		0.000885	0.00654	1	11/12/2020 18:06	WG1575403
(S) Toluene-d8	*112*			*75.0-131*		*11/12/2020 18:06*	WG1575403
(S) 4-Bromofluorobenzene	*95.4*			*67.0-138*		*11/12/2020 18:06*	WG1575403
(S) 1,2-Dichloroethane-d4	*95.5*			*70.0-130*		*11/12/2020 18:06*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.61	4.01	1	11/16/2020 11:06	WG1576942
C28-C40 Oil Range	2.06	J	0.275	4.01	1	11/16/2020 11:06	WG1576942
(S) o-Terphenyl	*63.9*			*18.0-148*		*11/16/2020 11:06*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.6		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.23	20.1	1	11/11/2020 20:40	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/12/2020 11:52	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*108*			*77.0-120*		*11/12/2020 11:52*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	11/12/2020 18:25	WG1575403
Toluene	U		0.00131	0.00504	1	11/12/2020 18:25	WG1575403
Ethylbenzene	U		0.000742	0.00252	1	11/12/2020 18:25	WG1575403
Total Xylenes	U		0.000886	0.00655	1	11/12/2020 18:25	WG1575403
(S) Toluene-d8	*112*			*75.0-131*		*11/12/2020 18:25*	WG1575403
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*11/12/2020 18:25*	WG1575403
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*		*11/12/2020 18:25*	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.01	1	11/16/2020 11:33	WG1576942
C28-C40 Oil Range	2.60	J	0.275	4.01	1	11/16/2020 11:33	WG1576942
(S) o-Terphenyl	*64.1*			*18.0-148*		*11/16/2020 11:33*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.6		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.24	20.1	1	11/11/2020 20:49	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/12/2020 12:13	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*11/12/2020 12:13*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000471	0.00101	1	11/12/2020 22:12	WG1575500
Toluene	U		0.00131	0.00504	1	11/12/2020 22:12	WG1575500
Ethylbenzene	U		0.000743	0.00252	1	11/12/2020 22:12	WG1575500
Total Xylenes	U		0.000887	0.00655	1	11/12/2020 22:12	WG1575500
(S) Toluene-d8	*116*			*75.0-131*		*11/12/2020 22:12*	WG1575500
(S) 4-Bromofluorobenzene	*93.2*			*67.0-138*		*11/12/2020 22:12*	WG1575500
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/12/2020 22:12*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.02	1	11/16/2020 11:20	WG1576942
C28-C40 Oil Range	1.91	J	0.275	4.02	1	11/16/2020 11:20	WG1576942
(S) o-Terphenyl	*45.7*			*18.0-148*		*11/16/2020 11:20*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.4		1	11/13/2020 03:54	WG1575380

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.35	20.3	1	11/11/2020 20:59	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	11/12/2020 12:34	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*108*			*77.0-120*		*11/12/2020 12:34*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000483	0.00103	1	11/12/2020 22:31	WG1575500
Toluene	U		0.00134	0.00517	1	11/12/2020 22:31	WG1575500
Ethylbenzene	U		0.000762	0.00258	1	11/12/2020 22:31	WG1575500
Total Xylenes	U		0.000910	0.00672	1	11/12/2020 22:31	WG1575500
(S) Toluene-d8	*117*			*75.0-131*		*11/12/2020 22:31*	WG1575500
(S) 4-Bromofluorobenzene	*78.9*			*67.0-138*		*11/12/2020 22:31*	WG1575500
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*11/12/2020 22:31*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.29		1.64	4.07	1	11/17/2020 23:40	WG1576942
C28-C40 Oil Range	29.4		0.279	4.07	1	11/17/2020 23:40	WG1576942
(S) o-Terphenyl	*63.7*			*18.0-148*		*11/17/2020 23:40*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.6		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.24	20.1	1	11/11/2020 21:08	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/12/2020 12:55	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*11/12/2020 12:55*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000471	0.00101	1	11/12/2020 22:51	WG1575500
Toluene	U		0.00131	0.00504	1	11/12/2020 22:51	WG1575500
Ethylbenzene	U		0.000743	0.00252	1	11/12/2020 22:51	WG1575500
Total Xylenes	U		0.000887	0.00655	1	11/12/2020 22:51	WG1575500
(S) Toluene-d8	*112*			*75.0-131*		*11/12/2020 22:51*	WG1575500
(S) 4-Bromofluorobenzene	*97.9*			*67.0-138*		*11/12/2020 22:51*	WG1575500
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/12/2020 22:51*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.02	1	11/16/2020 12:12	WG1576942
C28-C40 Oil Range	5.14		0.275	4.02	1	11/16/2020 12:12	WG1576942
(S) o-Terphenyl	*65.3*			*18.0-148*		*11/16/2020 12:12*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.6		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.23	20.1	1	11/11/2020 21:37	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0281	B J	0.0218	0.100	1	11/12/2020 13:16	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*11/12/2020 13:16*	WG1575123

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	11/12/2020 23:10	WG1575500
Toluene	U		0.00131	0.00504	1	11/12/2020 23:10	WG1575500
Ethylbenzene	U		0.000742	0.00252	1	11/12/2020 23:10	WG1575500
Total Xylenes	U		0.000886	0.00655	1	11/12/2020 23:10	WG1575500
(S) Toluene-d8	*137*	J1		*75.0-131*		*11/12/2020 23:10*	WG1575500
(S) 4-Bromofluorobenzene	*97.1*			*67.0-138*		*11/12/2020 23:10*	WG1575500
(S) 1,2-Dichloroethane-d4	*95.4*			*70.0-130*		*11/12/2020 23:10*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.01	1	11/16/2020 12:25	WG1576942
C28-C40 Oil Range	8.70		0.275	4.01	1	11/16/2020 12:25	WG1576942
(S) o-Terphenyl	*60.8*			*18.0-148*		*11/16/2020 12:25*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.6		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.24	20.1	1	11/11/2020 21:46	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/13/2020 03:19	WG1575601
(S) a,a,a-Trifluorotoluene(FID)	*108*			*77.0-120*		*11/13/2020 03:19*	WG1575601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000471	0.00101	1	11/12/2020 23:29	WG1575500
Toluene	U		0.00131	0.00504	1	11/12/2020 23:29	WG1575500
Ethylbenzene	U		0.000743	0.00252	1	11/12/2020 23:29	WG1575500
Total Xylenes	U		0.000887	0.00655	1	11/12/2020 23:29	WG1575500
(S) Toluene-d8	*113*			*75.0-131*		*11/12/2020 23:29*	WG1575500
(S) 4-Bromofluorobenzene	*96.7*			*67.0-138*		*11/12/2020 23:29*	WG1575500
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*11/12/2020 23:29*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.02	1	11/16/2020 12:38	WG1576942
C28-C40 Oil Range	7.56		0.275	4.02	1	11/16/2020 12:38	WG1576942
(S) o-Terphenyl	*55.6*			*18.0-148*		*11/16/2020 12:38*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.7		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.23	20.1	1	11/11/2020 21:56	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/13/2020 03:40	WG1575601
(S) a,a,a-Trifluorotoluene(FID)	*108*			*77.0-120*		*11/13/2020 03:40*	WG1575601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	11/12/2020 23:48	WG1575500
Toluene	U		0.00131	0.00503	1	11/12/2020 23:48	WG1575500
Ethylbenzene	U		0.000741	0.00251	1	11/12/2020 23:48	WG1575500
Total Xylenes	U		0.000885	0.00654	1	11/12/2020 23:48	WG1575500
(S) Toluene-d8	*102*			*75.0-131*		*11/12/2020 23:48*	WG1575500
(S) 4-Bromofluorobenzene	*95.9*			*67.0-138*		*11/12/2020 23:48*	WG1575500
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/12/2020 23:48*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.70	J	1.61	4.01	1	11/16/2020 11:59	WG1576942
C28-C40 Oil Range	6.52		0.275	4.01	1	11/16/2020 11:59	WG1576942
(S) o-Terphenyl	*67.3*			*18.0-148*		*11/16/2020 11:59*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.6		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.23	20.1	1	11/11/2020 22:06	WG1574603

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/13/2020 04:01	WG1575601
(S) a,a,a-Trifluorotoluene(FID)	*109*			*77.0-120*		*11/13/2020 04:01*	WG1575601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	11/13/2020 00:07	WG1575500
Toluene	U		0.00131	0.00504	1	11/13/2020 00:07	WG1575500
Ethylbenzene	U		0.000742	0.00252	1	11/13/2020 00:07	WG1575500
Total Xylenes	U		0.000886	0.00655	1	11/13/2020 00:07	WG1575500
(S) Toluene-d8	*112*			*75.0-131*		*11/13/2020 00:07*	WG1575500
(S) 4-Bromofluorobenzene	*92.6*			*67.0-138*		*11/13/2020 00:07*	WG1575500
(S) 1,2-Dichloroethane-d4	*96.5*			*70.0-130*		*11/13/2020 00:07*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.01	1	11/16/2020 10:40	WG1576942
C28-C40 Oil Range	3.76	J	0.275	4.01	1	11/16/2020 10:40	WG1576942
(S) o-Terphenyl	*63.4*			*18.0-148*		*11/16/2020 10:40*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.4		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.26	20.1	1	11/15/2020 20:26	WG1574604

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	11/13/2020 04:22	WG1575601
(S) a,a,a-Trifluorotoluene(FID)	*109*			*77.0-120*		*11/13/2020 04:22*	WG1575601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000473	0.00101	1	11/13/2020 00:26	WG1575500
Toluene	U		0.00132	0.00506	1	11/13/2020 00:26	WG1575500
Ethylbenzene	U		0.000746	0.00253	1	11/13/2020 00:26	WG1575500
Total Xylenes	U		0.000891	0.00658	1	11/13/2020 00:26	WG1575500
(S) Toluene-d8	*115*			*75.0-131*		*11/13/2020 00:26*	WG1575500
(S) 4-Bromofluorobenzene	*96.4*			*67.0-138*		*11/13/2020 00:26*	WG1575500
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*		*11/13/2020 00:26*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.33	J	1.62	4.03	1	11/17/2020 23:27	WG1576942
C28-C40 Oil Range	14.1		0.276	4.03	1	11/17/2020 23:27	WG1576942
(S) o-Terphenyl	*61.9*			*18.0-148*		*11/17/2020 23:27*	WG1576942

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.5		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.25	20.1	1	11/15/2020 20:54	WG1574604

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	11/13/2020 04:43	WG1575601
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*11/13/2020 04:43*	WG1575601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000472	0.00101	1	11/13/2020 00:45	WG1575500
Toluene	U		0.00131	0.00506	1	11/13/2020 00:45	WG1575500
Ethylbenzene	U		0.000745	0.00253	1	11/13/2020 00:45	WG1575500
Total Xylenes	U		0.000890	0.00657	1	11/13/2020 00:45	WG1575500
(S) Toluene-d8	*112*			*75.0-131*		*11/13/2020 00:45*	WG1575500
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*11/13/2020 00:45*	WG1575500
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/13/2020 00:45*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.68	J	1.62	4.02	1	11/17/2020 23:01	WG1576942
C28-C40 Oil Range	9.14		0.276	4.02	1	11/17/2020 23:01	WG1576942
(S) o-Terphenyl	*74.3*			*18.0-148*		*11/17/2020 23:01*	WG1576942

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.4		1	11/13/2020 03:43	WG1575382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.26	20.1	1	11/15/2020 21:13	WG1574604

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	11/13/2020 05:04	WG1575601
(S) a,a,a-Trifluorotoluene(FID)	*108*			*77.0-120*		*11/13/2020 05:04*	WG1575601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000473	0.00101	1	11/13/2020 01:04	WG1575500
Toluene	U		0.00132	0.00506	1	11/13/2020 01:04	WG1575500
Ethylbenzene	U		0.000746	0.00253	1	11/13/2020 01:04	WG1575500
Total Xylenes	U		0.000891	0.00658	1	11/13/2020 01:04	WG1575500
(S) Toluene-d8	*115*			*75.0-131*		*11/13/2020 01:04*	WG1575500
(S) 4-Bromofluorobenzene	*89.9*			*67.0-138*		*11/13/2020 01:04*	WG1575500
(S) 1,2-Dichloroethane-d4	*94.0*			*70.0-130*		*11/13/2020 01:04*	WG1575500

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.46	J	1.62	4.03	1	11/17/2020 23:14	WG1576942
C28-C40 Oil Range	11.2		0.276	4.03	1	11/17/2020 23:14	WG1576942
(S) o-Terphenyl	*74.5*			*18.0-148*		*11/17/2020 23:14*	WG1576942

Method Blank (MB)

(MB) R3592727-1 11/13/20 04:03

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1283206-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1283206-01 11/13/20 04:03 • (DUP) R3592727-3 11/13/20 04:03

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	99.3	99.3	1	0.0104		10

Laboratory Control Sample (LCS)

(LCS) R3592727-2 11/13/20 04:03

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3592723-1 11/13/20 03:54

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1283206-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1283206-12 11/13/20 03:54 • (DUP) R3592723-3 11/13/20 03:54

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	99.6	99.6	1	0.0707		10

Laboratory Control Sample (LCS)

(LCS) R3592723-2 11/13/20 03:54

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3592719-1 11/13/20 03:43

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1283206-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1283206-15 11/13/20 03:43 • (DUP) R3592719-3 11/13/20 03:43

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	99.6	99.6	1	0.0195		10

Laboratory Control Sample (LCS)

(LCS) R3592719-2 11/13/20 03:43

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3592268-1 11/11/20 17:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1283206-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1283206-02 11/11/20 18:36 • (DUP) R3592268-5 11/11/20 18:46

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

L1283206-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1283206-19 11/11/20 22:06 • (DUP) R3592268-6 11/11/20 22:15

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3592268-2 11/11/20 17:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	207	103	90.0-110	

L1283206-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283206-01 11/11/20 18:08 • (MS) R3592268-3 11/11/20 18:17 • (MSD) R3592268-4 11/11/20 18:27

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	503	U	503	503	99.9	99.9	1	80.0-120			0.0647	20

Method Blank (MB)

(MB) R3593303-1 11/15/20 18:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1283206-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1283206-21 11/15/20 20:54 • (DUP) R3593303-5 11/15/20 21:03

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

L1283209-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1283209-07 11/16/20 00:33 • (DUP) R3593303-6 11/16/20 00:42

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3593303-2 11/15/20 18:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	203	102	90.0-110	

L1283206-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283206-20 11/15/20 20:26 • (MS) R3593303-3 11/15/20 20:35 • (MSD) R3593303-4 11/15/20 20:44

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	503	U	518	511	103	102	1	80.0-120			1.34	20

Method Blank (MB)

(MB) R3594000-2 11/12/20 04:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0342	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*111*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3594000-1 11/12/20 04:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.71	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*77.0-120*	

L1283204-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283204-10 11/12/20 05:58 • (MS) R3594000-3 11/12/20 13:37 • (MSD) R3594000-4 11/12/20 13:58

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.32	U	4.00	3.44	75.2	63.5	1	10.0-151			14.9	28
(S) a,a,a-Trifluorotoluene(FID)					*97.1*	*97.6*		*77.0-120*				

Method Blank (MB)

(MB) R3592707-2 11/12/20 17:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*111*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3592707-1 11/12/20 17:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.54	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*77.0-120*	

L1283207-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283207-10 11/13/20 08:34 • (MS) R3592707-3 11/13/20 09:16 • (MSD) R3592707-4 11/13/20 09:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.38	U	3.52	3.60	65.4	67.6	1	10.0-151			2.27	28
(S) a,a,a-Trifluorotoluene(FID)					*103*	*103*		*77.0-120*				

Method Blank (MB)

(MB) R3592364-2 11/12/20 10:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*115*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3592364-1 11/12/20 09:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.150	120	70.0-123	
Ethylbenzene	0.125	0.140	112	74.0-126	
Toluene	0.125	0.137	110	75.0-121	
Xylenes, Total	0.375	0.420	112	72.0-127	
(S) Toluene-d8			*107*	*75.0-131*	
(S) 4-Bromofluorobenzene			*96.7*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*111*	*70.0-130*	

L1283204-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283204-05 11/12/20 11:34 • (MS) R3592364-3 11/12/20 18:44 • (MSD) R3592364-4 11/12/20 19:03

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	U	0.115	0.105	91.9	83.9	1	10.0-149			9.17	37
Ethylbenzene	0.125	U	0.109	0.114	87.1	91.1	1	10.0-160			4.52	38
Toluene	0.125	U	0.106	0.112	84.7	89.5	1	10.0-156			5.56	38
Xylenes, Total	0.375	0.000898	0.298	0.338	79.3	89.8	1	10.0-160			12.4	38
(S) Toluene-d8					*107*	*111*		*75.0-131*				
(S) 4-Bromofluorobenzene					*96.1*	*92.8*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*99.6*	*89.7*		*70.0-130*				

Method Blank (MB)

(MB) R3592703-2 11/12/20 21:15

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*110*			*75.0-131*
(S) 4-Bromofluorobenzene	*99.7*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3592703-1 11/12/20 20:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.124	99.2	70.0-123	
Ethylbenzene	0.125	0.132	106	74.0-126	
Toluene	0.125	0.131	105	75.0-121	
Xylenes, Total	0.375	0.383	102	72.0-127	
(S) Toluene-d8			*110*	*75.0-131*	
(S) 4-Bromofluorobenzene			*78.9*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*99.9*	*70.0-130*	

L1283206-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283206-13 11/12/20 22:12 • (MS) R3592703-3 11/13/20 03:56 • (MSD) R3592703-4 11/13/20 04:15

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.126	U	0.103	0.105	81.6	83.2	1	10.0-149			1.94	37
Ethylbenzene	0.126	U	0.104	0.113	82.4	89.6	1	10.0-160			8.37	38
Toluene	0.126	U	0.0938	0.116	74.4	92.0	1	10.0-156			21.2	38
Xylenes, Total	0.378	U	0.272	0.332	72.0	87.7	1	10.0-160			19.7	38
(S) Toluene-d8					*98.6*	*114*		*75.0-131*				
(S) 4-Bromofluorobenzene					*81.1*	*88.6*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*101*	*99.4*		*70.0-130*				

Method Blank (MB)

(MB) R3593410-1 11/15/20 08:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	0.375	J	0.274	4.00
(S) o-Terphenyl	*69.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3593410-2 11/15/20 08:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	31.8	63.6	50.0-150	
(S) o-Terphenyl			*58.3*	*18.0-148*	

L1283204-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283204-01 11/16/20 22:54 • (MS) R3593866-1 11/16/20 23:07 • (MSD) R3593866-2 11/16/20 23:20

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.2	6.24	41.8	44.5	72.2	77.7	1	50.0-150			6.32	20
(S) o-Terphenyl					*61.5*	*60.5*		*18.0-148*				

Method Blank (MB)

(MB) R3593867-1 11/16/20 10:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*59.3*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3593867-2 11/16/20 10:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	27.8	55.6	50.0-150	
(S) o-Terphenyl			*54.2*	*18.0-148*	

L1283207-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283207-03 11/16/20 13:31 • (MS) R3593867-3 11/16/20 13:44 • (MSD) R3593867-4 11/16/20 13:57

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	52.1	56.2	128	66.2	137	18.9	1	50.0-150		J3 J6	63.4	20
(S) o-Terphenyl					*41.2*	*27.0*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

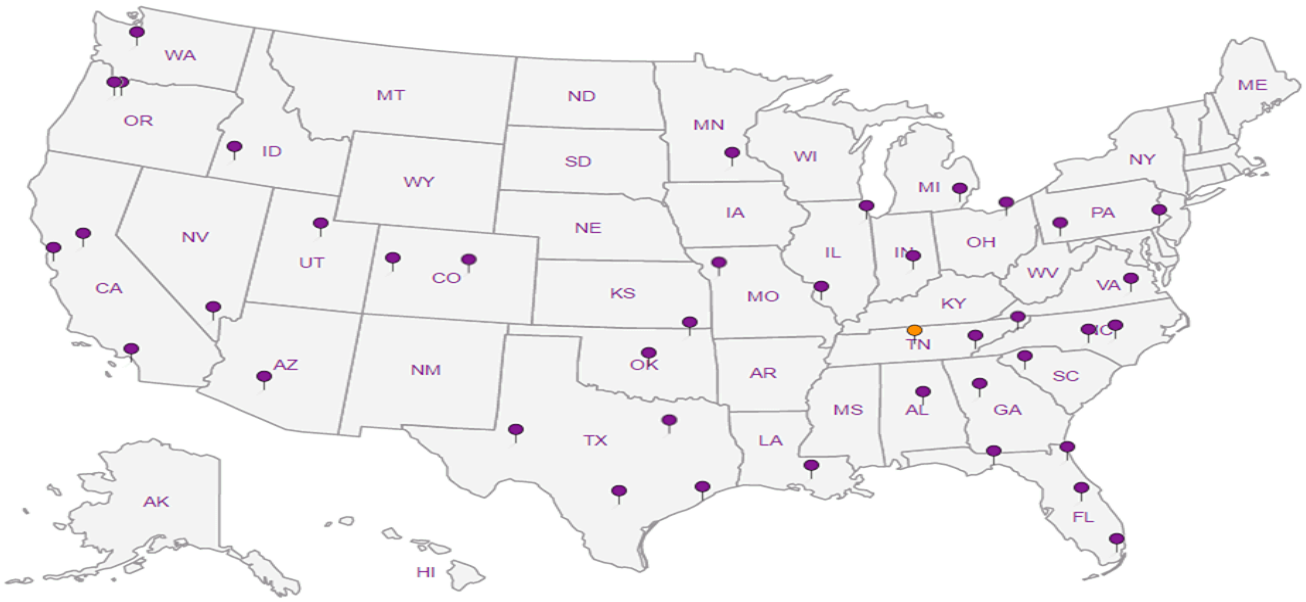
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

L1283206

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	SEMU Permian #73 Flowline (1RP-1342)	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02334, Task No. 11
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Adrian Garcia
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
YEAR: 2020																																	
-01	AH-1 (0'-1')	11/05/20	1200		X				X		1	N	X		X												X						
-02	AH-1 (1'-2')	11/05/20	1210		X				X		1	N	X		X												X						
-03	AH-1 (2'-3')	11/05/20	1220		X				X		1	N	X		X												X						
-04	AH-1 (3'-4')	11/05/20	1230		X				X		1	N	X		X												X						
-05	AH-1 (4'-5')	11/05/20	1240		X				X		1	N	X		X												X						
-06	AH-1 (5'-6')	11/05/20	1250		X				X		1	N	X		X												X						
-07	AH-1 (6'-7')	11/05/20	1300		X				X		1	N	X		X												X						
-08	AH-1 (7'-8)	11/05/20	1320		X				X		1	N	X		X												X						
-09	AH-1 (8'-9')	11/05/20	1340		X				X		1	N	X		X												X						
-10	AH-1 (9'-10')	11/05/20	1400		X				X		1	N	X		X												X						

Relinquished by: Adrian Garcia	Date: 11/6/20	Time: 14:00	Received by: [signature]	Date: 11.6.20	Time: 14:00
Relinquished by: [signature]	Date: 11.6.20	Time: 16:30	Received by: [signature]	Date: 11.6.20	Time: 16:30
Relinquished by:	Date:	Time:	Received by: B. Barras	Date: 11-7-20	Time: 1030

ORIGINAL COPY

A097

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Analysis Request of Chain of Custody Record

L1283206 Page : 2 of 3

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	SEMU Permian #73 Flowline (1RP-1342)	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02334, Task No. 11
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Adrian Garcia
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-11	AH-2 (0'-1')	11/04/20	1410		X				X			1	N	X		X												X						
-12	AH-2 (1'-2')	11/04/20	1420		X				X			1	N	X		X												X						
-13	AH-2 (2'-3')	11/04/20	1421		X				X			1	N	X		X												X						
-14	AH-3 (0'-1')	11/04/20	1422		X				X			1	N	X		X												X						
-15	AH-3 (1'-2')	11/04/20	1423		X				X			1	N	X		X												X						
-16	AH-3 (2'-3')	11/04/20	1424		X				X			1	N	X		X												X						
-17	AH-4 (0'-1')	11/04/20	1425		X				X			1	N	X		X												X						
-18	AH-4 (1'-2')	11/04/20	1426		X				X			1	N	X		X												X						
-19	AH-4 (2'-3')	11/04/20	1427		X				X			1	N	X		X												X						
-20	AH-5 (0'-1')	11/04/20	1428		X				X			1	N	X		X												X						

	Date:	Time:		Date:	Time:
Relinquished by: Odyssey Ray	11/6/20	14:40	Received by:	11.6.20	14:40
Relinquished by:	11.6.20	16:30	Received by: SLA	11.6.20	16:30
Relinquished by:	Date:	Time:	Received by: B. Bacon	11-7-20	1030

ORIGINAL COPY

LAB USE ONLY
Sample Temperature

REMARKS:
- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

RAD SCREEN: <0.5 mR/hr

MPA2
1.8 ± 0 = 18

Analysis Request of Chain of Custody Record

LT283206

Page : 2 of 3

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	SEMU Permian #73 Flowline (1RP-1342)	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02334, Task No. 11
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Adrian Garcia
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
-21	AH-5 (1'-2')	11/04/20	1430		X				X		1	N	X		X												X					
-22	AH-5 (2'-3')	11/04/20	1435		X				X		1	N	X		X												X					

Relinquished by:	Date: 11/6/20	Time: 14:00	Received by: 11.6.20 14:00
Relinquished by:	Date: 11.6.20	Time: 16:30	Received by: Date: 11.6.20 Time: 16:30
Relinquished by:	Date:	Time:	Received by: B. Barnes Date: 11-7-20 Time: 1030

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

MPA2
1.8 ± 0 = 1.8

RAD SCREEN: <0.5 mR/hr

Pace Analytical National Center for Testing & Innovation Cooler Receipt Form		
Client: CORTERA	L720376	
Cooler Received/Opened On: 11 / 7 / 20 Temperature:	1.8	
Received By: Billy Barras		
Signature: B. Barras		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

CARDINAL Laboratories

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

November 30, 2023

CHUCK TERHUNE

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: SEMU PERMIAN 73

Enclosed are the results of analyses for samples received by the laboratory on 11/29/23 14:25.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: BH - 1 (4.0') (H236426-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

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

Surrogate: 1-Chlorooctadecane *92.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: BH - 2 (4.0') (H236426-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/30/2023	ND	208	104	200	0.558	
DRO >C10-C28*	**176**	10.0	11/30/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	**127**	10.0	11/30/2023	ND					

Surrogate: 1-Chlorooctane *93.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *71.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: BH - 3 (4.0') (H236426-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *84.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: BH - 4 (4.0') (H236426-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *82.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: BH - 5 (4.0') (H236426-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/30/2023	ND	208	104	200	0.558	
DRO >C10-C28*	**54.8**	10.0	11/30/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	**55.7**	10.0	11/30/2023	ND					

Surrogate: 1-Chlorooctane *82.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *91.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: BH - 6 (4.0') (H236426-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *82.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.5 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 1 (H236426-07)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *120 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *82.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.0 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 2 (H236426-08)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *83.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.5 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 3 (H236426-09)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *84.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.2 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 4 (H236426-10)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/30/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/30/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/30/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/30/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/30/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	**35.5**	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	**13.5**	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *84.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.6 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 5 (H236426-11)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *122 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	**21.9**	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *83.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.4 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 6 (H236426-12)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

Chloride, SM4500Cl-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	11/30/2023	ND	448	112	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	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

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

Surrogate: 1-Chlorooctadecane *92.8 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 7 (H236426-13)

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	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *120 %* *71.5-134*

Chloride, SM4500Cl-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	11/30/2023	ND	448	112	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	11/30/2023	ND	208	104	200	0.558	
DRO >C10-C28*	<10.0	10.0	11/30/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/30/2023	ND					

Surrogate: 1-Chlorooctane *80.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.8 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 8 (H236426-14)

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	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-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	11/30/2023	ND	448	112	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	11/30/2023	ND	208	104	200	0.558	
DRO >C10-C28*	**151**	10.0	11/30/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	**107**	10.0	11/30/2023	ND					

Surrogate: 1-Chlorooctane *79.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *97.5 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 9 (H236426-15)

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	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	11/30/2023	ND	448	112	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	11/30/2023	ND	208	104	200	0.558	
DRO >C10-C28*	**188**	10.0	11/30/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	**138**	10.0	11/30/2023	ND					

Surrogate: 1-Chlorooctane *87.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

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Analytical Results For:

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

Received:	11/29/2023	Sampling Date:	11/29/2023
Reported:	11/30/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 10 (H236426-16)

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	11/29/2023	ND	1.83	91.7	2.00	6.82	
Toluene*	<0.050	0.050	11/29/2023	ND	1.93	96.5	2.00	6.06	
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.95	97.4	2.00	6.46	
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.95	99.2	6.00	6.25	
Total BTEX	<0.300	0.300	11/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-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	11/30/2023	ND	448	112	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	11/29/2023	ND	208	104	200	0.558	
DRO >C10-C28*	**41.5**	10.0	11/29/2023	ND	210	105	200	4.01	
EXT DRO >C28-C36	**20.6**	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane *77.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 W Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Maverick Natural Resources	Site Manager: Chuck Terhune
Project Name: SEMU Permian 73	281-755-8965 chuck.terhune@tetratech.com
Project Location: (county, state) Lea County, NM	Project #: 212C-MD-03272
Invoice to: Attn: Chuck Terhune	
Receiving Laboratory: Cardinal Labs	Sampler Signature: Jorge Fernadez
Comments:	

H236426

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
1	BH-1 (4.0')	11/29/2023			x				x				
2	BH-2 (4.0')	11/29/2023			x				x				
3	BH-3 (4.0')	11/29/2023			x				x				
4	BH-4 (4.0')	11/29/2023			x				x				
5	BH-5 (4.0')	11/29/2023			x				x				
6	BH-6 (4.0')	11/29/2023			x				x				

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
x		x												x							
x		x												x							
x		x												x							
x		x												x							
x		x												x							
x		x												x							
x		x												x							

Relinquished by: Date: 11-29-23 Time: 1425

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 3.1°C

#140

REMARKS: Standard TAT

[X] RUSH: Same Day (24 hr) 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

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Analysis Request of Chain of Custody Record

Page 20 of 20

Tetra Tech, Inc.

901 W Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name:	Maverick Natural Resources	**Site Manager:**	Chuck Terhune
Project Name:	SEMU Permian 73		281-755-8965 chuck.terhune@tetratech.com
Project Location: (county, state)	Lea County, NM	**Project #:**	212C-MD-03272
Invoice to:	Attn: Chuck Terhune		
Receiving Laboratory:	Cardinal Labs	**Sampler Signature:**	Jorge Fernadez
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2023 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
H234424																																			
7	SW-1	11/29/2023			x				x					x		x												x							
8	SW-2	11/29/2023			x				x					x		x												x							
9	SW-3	11/29/2023			x				x					x		x												x							
10	SW-4	11/29/2023			x				x					x		x												x							
11	SW-5	11/29/2023			x				x					x		x												x							
12	SW-6	11/29/2023			x				x					x		x												x							
13	SW-7	11/29/2023			x				x					x		x												x							
14	SW-8	11/29/2023			x				x					x		x												x							
15	SW-9	11/29/2023			x				x					x		x												x							
16	SW-10	11/29/2023			x				x					x		x												x							

Relinquished by:	Date: 11-29-23	Time: 1425	Received by:
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:

LAB USE ONLY

Sample Temperature 3.1°C #140

REMARKS: Standard TAT

[X] RUSH: Same Day 24 hr 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

CARDINAL Laboratories

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

December 04, 2023

CHUCK TERHUNE

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: SEMU PERMIAN 73

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

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/01/2023	Sampling Date:	12/01/2023
Reported:	12/04/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW -9 (H236462-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2023	ND	2.20	110	2.00	0.806	
Toluene*	<0.050	0.050	12/01/2023	ND	2.17	109	2.00	1.01	
Ethylbenzene*	<0.050	0.050	12/01/2023	ND	2.14	107	2.00	0.721	
Total Xylenes*	<0.150	0.150	12/01/2023	ND	6.83	114	6.00	0.484	
Total BTEX	<0.300	0.300	12/01/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/01/2023	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	12/01/2023	ND	207	104	200	3.79	
DRO >C10-C28*	**72.9**	10.0	12/01/2023	ND	193	96.6	200	1.31	
EXT DRO >C28-C36	**58.3**	10.0	12/01/2023	ND					

Surrogate: 1-Chlorooctane *101 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *122 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/01/2023	Sampling Date:	12/01/2023
Reported:	12/04/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW -8 (H236462-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2023	ND	2.20	110	2.00	0.806	
Toluene*	<0.050	0.050	12/01/2023	ND	2.17	109	2.00	1.01	
Ethylbenzene*	<0.050	0.050	12/01/2023	ND	2.14	107	2.00	0.721	
Total Xylenes*	<0.150	0.150	12/01/2023	ND	6.83	114	6.00	0.484	
Total BTEX	<0.300	0.300	12/01/2023	ND					

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

Chloride, SM4500Cl-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	12/01/2023	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	12/01/2023	ND	207	104	200	3.79	
DRO >C10-C28*	**56.8**	10.0	12/01/2023	ND	193	96.6	200	1.31	
EXT DRO >C28-C36	**45.4**	10.0	12/01/2023	ND					

Surrogate: 1-Chlorooctane *102 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *119 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 W Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Maverick Natural Resources	Site Manager: Chuck Terhune
Project Name: SEMU Permian 73	281-755-8965 chuck.terhune@tetratech.com
Project Location: (county, state) Lea County, NM	Project #: 212C-MD-03272
Invoice to: Attn: Chuck Terhune	
Receiving Laboratory: Cardinal Labs	Sampler Signature: Jorge Fernadez
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
H23004162		YEAR: 2023																																
1	SW-9	12/1/2023			x				x				x		x												x								
2	SW-8	12/1/2023			x				x				x		x												x								

ANALYSIS REQUEST
(Circle or Specify Method No.)

Relinquished by: Date: 12-01-23 Time: 1218

Received by: Date: 12-1-23 Time: 12:18

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 3.1°C

#140

REMARKS: Standard TAT

[X] RUSH: Same Day (24 hr) 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

CARDINAL Laboratories

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

December 07, 2023

CHUCK TERHUNE

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: SEMU PERMIAN 73

Enclosed are the results of analyses for samples received by the laboratory on 12/06/23 11:04.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/06/2023	Sampling Date:	12/05/2023
Reported:	12/07/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 9 (H236534-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/06/2023	ND	2.15	108	2.00	4.82	
Toluene*	<0.050	0.050	12/06/2023	ND	2.13	106	2.00	5.45	
Ethylbenzene*	<0.050	0.050	12/06/2023	ND	2.10	105	2.00	5.67	
Total Xylenes*	<0.150	0.150	12/06/2023	ND	6.65	111	6.00	4.42	
Total BTEX	<0.300	0.300	12/06/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/06/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/06/2023	ND	198	98.8	200	0.682	
DRO >C10-C28*	<10.0	10.0	12/06/2023	ND	184	92.1	200	3.07	
EXT DRO >C28-C36	<10.0	10.0	12/06/2023	ND					

Surrogate: 1-Chlorooctane *95.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/06/2023	Sampling Date:	12/05/2023
Reported:	12/07/2023	Sampling Type:	Soil
Project Name:	SEMU PERMIAN 73	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03272	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK -LEA CO NM		

Sample ID: SW - 8 (H236534-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/06/2023	ND	2.15	108	2.00	4.82	
Toluene*	<0.050	0.050	12/06/2023	ND	2.13	106	2.00	5.45	
Ethylbenzene*	<0.050	0.050	12/06/2023	ND	2.10	105	2.00	5.67	
Total Xylenes*	<0.150	0.150	12/06/2023	ND	6.65	111	6.00	4.42	
Total BTEX	<0.300	0.300	12/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/06/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/06/2023	ND	198	98.8	200	0.682	
DRO >C10-C28*	<10.0	10.0	12/06/2023	ND	184	92.1	200	3.07	
EXT DRO >C28-C36	<10.0	10.0	12/06/2023	ND					

Surrogate: 1-Chlorooctane *104 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *98.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 W Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Maverick Natural Resources

Site Manager: Chuck Terhune

Project Name: SEMU Permian 73

281-755-8965
chuck.terhune@tetratech.com

Project Location: (county, state) Lea County, NM

Project #: 212C-MD-03272

Invoice to: Attn: Chuck Terhune

Receiving Laboratory: Cardinal Labs

Sampler Signature: Jorge Fernadez

Comments:

H236534

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	Hold
1	SW-9	12/5/2023			x			x			x		x												x				
2	SW-8	12/5/2023			x			x			x		x												x				

Relinquished by: Date: 12-06-23 Time: 11:04

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: 12-1-23 Time: 11:04

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 3.1°C

#140

REMARKS: Standard TAT

[X] RUSH: Same Day (24 hr) 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

ATTACHMENT 7: NMSLO SEED MIXTURE DETAILS

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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QUESTIONS

Action 323619

QUESTIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 323619
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nPAC0714434227**
Incident Name	**NPAC0714434227 SEMU PERMIAN #073 @ 30-025-07822**
Incident Type	**Oil Release**
Incident Status	**Reclamation Report Received**
Incident Well	**[30-025-07822] SEMU PERMIAN #073**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	SEMU PERMIAN #073
Date Release Discovered	11/24/2004
Surface Owner	Private

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Corrosion | Pipeline (Any) | Crude Oil | Released: 35 BBL | Recovered: 28 BBL | Lost: 7 BBL.
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	*Not answered.*
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 323619
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

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

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

I hereby agree and sign off to the above statement	Name: Chuck Terhune Email: chuck.terhune@tetratech.com Date: 03/15/2024

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QUESTIONS (continued)

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	Action Number: 323619
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	48
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	4060
GRO+DRO (EPA SW-846 Method 8015M)	1170
BTEX (EPA SW-846 Method 8021B or 8260B)	0.1
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	11/06/2023
On what date will (or did) the final sampling or liner inspection occur	12/05/2023
On what date will (or was) the remediation complete(d)	12/18/2023
What is the estimated surface area (in square feet) that will be reclaimed	2540
What is the estimated volume (in cubic yards) that will be reclaimed	410
What is the estimated surface area (in square feet) that will be remediated	2540
What is the estimated volume (in cubic yards) that will be remediated	2540
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Chuck Terhune Email: chuck.terhune@tetratech.com Date: 03/15/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Number: 323619
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

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QUESTIONS (continued)

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	Action Number: 323619
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**323544**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**12/01/2024**
What was the (estimated) number of samples that were to be gathered	**2**
What was the sampling surface area in square feet	**350**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	2540
What was the total volume (cubic yards) remediated	410
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	2540
What was the total volume (in cubic yards) reclaimed	410
Summarize any additional remediation activities not included by answers (above)	410 CY of material was excavated and disposed of at R360 Halfway facility, Clean soil was trucked in and used to backfill the excavation subsequent to confirmation sampling, then graded and re-seeded using NMSLO seed mix.

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 (in .pdf format) 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.

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I hereby agree and sign off to the above statement	Name: Chuck Terhune Email: chuck.terhune@tetratech.com Date: 03/15/2024

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QUESTIONS (continued)

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	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	2540
What was the total volume of replacement material (in cubic yards) for this site	410
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	12/18/2023
Summarize any additional reclamation activities not included by answers (above)	Backfilling remediation/reclamation area with clean soil from local pit, grade to match surrounding topography, seed with NMSLO seed mix to match USDA NCRS Soil mapped soil profile for the Site.
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.	
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.	
I hereby agree and sign off to the above statement	Name: Chuck Terhune Email: chuck.terhune@tetratech.com Date: 03/15/2024

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QUESTIONS (continued)

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	Action Number: 323619
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Action 323619

CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 323619
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Reclamation closure approved.	3/28/2024
amaxwell	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	3/28/2024
amaxwell	OR Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	3/28/2024