

May 13, 2021

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

#### Re: Release Characterization and Remediation Work Plan ConocoPhillips VGEU 02-20 East Flowline Release Unit Letter D, Section 32, Township 17 South, Range 35 East Lea County, New Mexico Incident ID# nRM2019933917

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred from the flowline of the Vacuum Glorieta East Unit (VGEU) 02-20 well (Associated API No. 30-025-37850), approximately 2,000 feet west-northwest of the wellhead. The release footprint is located in Public Land Survey System (PLSS) Unit Letter D, Section 32, Township 17 South, and Range 35 East, Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.796080°, -103.485055°, as shown on Figures 1 and 2.

#### BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the VGEU 02-20 East release was discovered on June 29, 2020. The release occurred as the result of a flowline rupture and encompasses an estimated area of 1,512 square feet. Approximately 16.0 barrels (bbls) of produced water and 4.0 bbls of oil were reported released, of which 0.0 bbls of produced water and 0.0 bbls of oil were recovered. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on July 10, 2020. The NMOCD Incident ID for this release is nRM2019933917.

#### SITE CHARACTERIZATION

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

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are four water wells within  $\frac{1}{2}$  mile (800m) of the Site with an average depth to groundwater of 102 feet below ground surface (bgs). The site characterization data is included in Appendix B.

#### **REGULATORY FRAMEWORK**

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

Release Characterization and Remediation Work Plan May 13, 2021

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

Constituent	Site RRAL
Chloride	10,000 mg/kg
ТРН	2,500 mg/kg
BTEX	50 mg/kg

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

Constituent	<b>Reclamation Requirements</b>
Chloride	600 mg/kg
ТРН	100 mg/kg
BTEX	50 mg/kg

### INITIAL RESPONSE AND REMEDIAL ACTIVITIES

In accordance with 19.15.29.8. B. (4) NMAC that states "the responsible party may commence remediation immediately after discovery of a release", ConocoPhillips elected to begin remediation of the impacted area in 2020. In July of 2020, the release area was partially excavated to depths of 12 inches bgs to 18 inches bgs. Figure 3 depicts the release extent and excavated area. Waste manifests generated during initial response activities are included as Appendix C.

### INITIAL ASSESSMENT ACTIVITIES AND SAMPLING RESULTS

As a portion of the initial response, on July 16, 2020, COP personnel collected a total of thirty-three (33) soil samples from twenty-seven (27) sample locations. Surface soil samples were collected at SP #1 through SP #24 within the excavated area and at Background-N, Background-S and Background-E outside the excavated area. At SP #1A through SP #3A, samples were collected at both 1-foot bgs and 2 feet bgs within the existing excavation. These soil samples were sent to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for chloride via EPA Method SM45000CI-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. Sample locations are shown in Figure 3.

Analytical results associated with twenty-four (24) sample locations exceeded the delineation concentration of 600 mg/kg chloride required by NMOCD regulations. The analytical results associated with Background-E exceeded the reclamation concentration for TPH (100 mg/kg). Analytical results associated with sample location Background- and Background-S were below all Site RRALs. There were no detections of benzene in any of the analyzed samples. Copies of the analytical laboratory reports and chain-of-custody documentation are included in Appendix D. Sample results from the initial assessment are summarized in Table 1. Partial horizontal delineation of the release (to the north and south) was achieved during this assessment. Vertical delineation was not achieved during the initial assessment.

#### ADDITIONAL SITE ASSESSMENT

In order to complete horizontal and vertical delineation of the release extent, Tetra Tech personnel conducted soil sampling on January 18, 2021 on behalf of ConocoPhillips. A total of six (6) borings (BH-1 through BH-6) were installed using an air rotary drilling rig. Two (2) borings (BH-1 and BH-2) were installed within the release extent to depths of 20 feet bgs and 10 feet bgs, respectively, to achieve vertical delineation. The remaining 4 borings (BH-3 through BH-6) were installed along the perimeter of the release extent to a depth of 10 feet bgs to achieve horizontal delineation. Figure 4 depicts the release extent, excavated area and the January 2021 soil boring locations. Boring logs, included as Appendix E, present soil descriptions, sample depths and field screening data from the site assessment in January 2021.

Release Characterization and Remediation Work Plan May 13, 2021

A total of twenty-six (26) samples were collected from the six (6) borings and submitted to Pace Analytical National Center for Testing & Innovation (Pace) in Nashville, Tennessee to be analyzed for chlorides via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix D. Boring locations are shown in Figure 4. Photographic documentation of the initial response extents and the additional site inspection is included in Appendix F.

#### SUMMARY OF SAMPLING RESULTS

Results from the January 2021 soil sampling event are summarized in Table 2. The analytical results associated with the BH-1 sample location exceeded the Site chloride RRAL of 600 mg/kg in the 2-3' sample interval. There were no other analytical results which exceeded the chloride RRAL (600 mg/kg) during the additional assessment. The analytical results associated with the remainder of the samples analyzed were below the BTEX or TPH Site RRALs of 50 mg/kg and 100 mg/kg, respectively.

#### **REMEDIATION WORK PLAN**

Based on the analytical results, ConocoPhillips proposes to remove the remaining impacted material as shown in Figure 5. Impacted soils will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum depth of 4 feet below the surrounding surface or until a representative sample from the walls and bottom of the excavation is below the RRALs. The western portion of the release extent containing the 1-foot initial response excavation will be excavated an additional 3 feet. The western portion around the perimeter of the initial response excavation will be excavated to a depth 4 feet. The eastern portion of the release extent will be excavated to a depth of 2 feet. The northern and central area of the release extent that contains steel surface lines will be hand-dug to a maximum depth of 4 feet or the maximum extent practicable and heavy equipment will come no more than 3 ft from any pressurized lines.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation bottom and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is approximately 500 cubic yards.

#### ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 6. Nine (9) confirmation floor samples and fourteen (14) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses a surface area of approximately 4,500 square feet.

These confirmation sidewall and floor samples will be representative of no more than approximately 500 square feet of excavated area. Confirmation samples will be sent to Pace Laboratories for analysis of TPH (Method 8015 modified), BTEX (Method 8260B), and chloride (USEPA Method 300.0). Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade.

### SITE RECLAMATION AND RESTORATION PLAN

The backfilled areas will be seeded in Spring 2021 (first favorable growing season) to aid in revegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Sandy Loam (SL) Sites Seed Mixture will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Page 4 of 172

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

### CONCLUSION

ConocoPhillips proposes to begin remediation activities at the Site within 90 days of NMOCD plan approval. Upon completion of the proposed work, a final closure report detailing the remediation activities and the results of the confirmation sampling will be submitted to NMOCD. If you have any questions concerning the soil assessment or the proposed remediation activities for the Site, please call me at (512) 338-2861 or Greg at (432) 682-4559.

Sincerely, Tetra Tech, Inc.

Christian M. Llull, P.G. Project Manager

Greg W. Pope, P.G. Program Manager

cc: Mr. Marvin Soriwei, RMR – ConocoPhillips Mr. Charles Beauvais, GPBU - ConocoPhillips Release Characterization and Remediation Work Plan May 13, 2021

ConocoPhillips

### LIST OF ATTACHMENTS

#### Figures:

- Figure 1 Overview Map
- Figure 2 Site Location/Topographic Map
- Figure 3 Approximate Release Extent and Initial Assessment Map
- Figure 4 Release Assessment Map
- Figure 5 Proposed Remediation Extent
- Figure 6 Alternative Confirmation Sampling Plan

#### Tables:

Table 1 – Summary of Analytical Results – Initial Soil Assessment

Table 2 – Summary of Analytical Results – Additional Soil Assessment

#### Appendices:

Appendix A – C-141 Forms

Appendix B – Site Characterization Data

Appendix C – Initial Response Waste Manifests

Appendix D – Laboratory Analytical Data

Appendix E – Soil Boring Logs

Appendix F – Photographic Documentation

Appendix G – NMSLO Seed Mixture Details

5

# FIGURES



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## TABLES

#### TABLE 1 SUMMARY OF ANALYTICAL RESULTS INITIAL SOIL ASSESSMENT - nRM2019933917 CONOCOPHILLIPS VGEU 02-20 EAST FLOWLINE RELEASE LEA COUNTY, NM

									BTEX <sup>2</sup>								ТР	H <sup>3</sup>				
		Sampled Depth	Chloride <sup>1</sup>		Chloride1											GRO⁴		DRO		ORO		
Sample ID	Sample Date				Benzene		Toluene		Ethylbenzen	e	Total Xylene	es	Total BTEX	C <sub>3</sub> -C <sub>10</sub>		C <sub>10</sub> - C <sub>28</sub>		C <sub>28</sub> - C <sub>40</sub>		Total TPH		
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg		
SP #1	7/16/2020	-	7,730		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #2	7/16/2020	-	8,640		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #3	7/16/2020	-	17,200		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		535		129		664		
SP #4	7/16/2020	-	10,800		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		37.6		15.0		52.6		
SP #5	7/16/2020	-	11,600		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #6	7/16/2020	-	14,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		128		33.8		162		
SP #7	7/16/2020	-	22,600		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		275		69.2		344		
SP #8	7/16/2020	-	14,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		284		76.9		361		
SP #9	7/16/2020	-	11,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #10	7/16/2020	-	16,800		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		50.8		15.1		65.9		
SP #11	7/16/2020	-	14,400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		252		77.3		329		
SP #12	7/16/2020	-	14,800		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		165		48.4		213		
SP #13	7/16/2020	-	11,800		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		62.3		22.3		84.6		
SP #14	7/16/2020	-	14,100		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #15	7/16/2020	-	10,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		105		27.5		133		
SP #16	7/16/2020	-	15,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		136		37.4		173		
SP #17	7/16/2020	-	13,200		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		128		33.2		161		
SP #18	7/16/2020	-	9,860		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #19	7/16/2020	-	5,280		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		13.0		10.1		23.1		
SP #20	7/16/2020	-	28,800		< 0.050		0.065		0.109		0.230		0.404	10.2		3,220		824		4,044		
SP #21	7/16/2020	-	13,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		426		105		531		
SP #22	7/16/2020	-	10,400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #23	7/16/2020	-	13,400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		542		138		680		
SP #24	7/16/2020	-	2,560		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #1A	7/30/2020	1.0	2,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #1A	7/30/2020	2.0	1,200		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #2A	7/30/2020	1.0	2,480		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #2A	7/30/2020	2.0	5,440		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #3A	7/30/2020	1.0	3,360		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
SP #3A	7/30/2020	2.0	3,000		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
Background-S	7/30/2020	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		
Background-E	7/30/2020	-	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		149		33.5		183		
Background-N	7/30/2020	-	32.0		< 0.050	1	< 0.050		< 0.050		< 0.150		< 0.300	< 10.0		< 10.0		< 10.0		< 10.0		

NOTES:

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ft. Feet

Below ground surface bgs ppm Parts per million

Milligrams per kilogram mg/kg

Not sampled NS

ТРН Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

ORO Oil range organics

Shaded	rov	vs ind	icate	e der	pth i	intervals	proposed	for e	excavation and	ren	nediat	ion	

Bold and italicized values indicate exceedance of proposed RRALs based on the region's depth to groundwater and the sampled depths bgs. 1

Method 4500.0

EPA Method 8260B

3 EPA Method 8015

2

4 EPA Method 8015D/GRO

#### TABLE 2 SUMMARY OF ANALYTICAL RESULTS ADDITIONAL SOIL ASSESSMENT - nRM2019933917 CONOCOPHILLIPS VGEU 02-20 FLOWLINE RELEASE - EAST LEA COUNTY, NM

			Field Care								BTEX <sup>2</sup>								TPI	1 <sup>3</sup>		
Sample ID	Sample Date	Sample Depth Interval	Field Screel	ning Results	Chloride1		Benzene		Toluene		Ethylbenzen	•	Total Xylenes		Total BTEX	GRO <sup>4</sup>		DRO		ORO		Total TPH
Sample ID	Sample Date	interval	Chloride	PID			Benzene		Toluene		Ethylbenzen	6	Total Aylenes		TOTAL BLEX	C <sub>3</sub> - C <sub>10</sub>		C <sub>10</sub> - C <sub>28</sub>		C <sub>28</sub> - C <sub>40</sub>		(GRO+DRO+ORO)
		ft. bgs	pp	om	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg 0	Q	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
		2-3	2810	12	4330		< 0.00114		< 0.00568		< 0.00284		< 0.00738		-	< 0.107		12.6		18.8		31.4
		4-5	37	1.0	< 21.2		< 0.00112		< 0.00560		< 0.00280		< 0.00729		-	< 0.106		< 4.24		1.75	J	1.75
BH-1	1/18/2021	6-7	25	1.0	< 21.1		< 0.00111		< 0.00554		< 0.00277		< 0.00721		-	< 0.105		< 4.21		3.01	J	3.01
		9-10	42	1.9	< 21.1		< 0.00111		< 0.00556		< 0.00278		< 0.00723		-	< 0.106		< 4.22		2.79	J	2.79
		15	24	0.9	< 21.3		< 0.00113		< 0.00567		< 0.00284		< 0.00737		-	< 0.107		< 4.27		< 4.27		-
		20	20	0.7	399		< 0.00108		< 0.00540		< 0.00270		< 0.00703		-	< 0.104		< 4.16		< 4.16		-
		0-1	65	5.0	41.7		< 0.00108		< 0.00539		< 0.00269		< 0.00700		-	< 0.104		< 4.15		1.73	J	1.73
		2-3	129	5.0	36.0		< 0.00108		< 0.00540		< 0.00270		< 0.00702		-	< 0.104		< 4.16		0.629	J	0.629
BH-2	1/18/2021	4-5	94	5.0	22.3		< 0.00106		< 0.00528		< 0.00264		< 0.00686		-	< 0.103		< 4.11		< 4.11		-
		6-7	52	1.0	< 21.4		< 0.00114		< 0.00569		< 0.00284		< 0.00740		-	< 0.107		< 4.28		2.90	J	2.90
		9-10	32	0.7	< 21.0		< 0.00110		< 0.00551		< 0.00274		< 0.00716		-	< 0.105		< 4.20		1.87	J	1.87
		0-1	91	3.0	< 21.7		< 0.00117		< 0.00584		< 0.00292		< 0.00760		-	< 0.108		< 4.34		7.94		7.94
		2-3	125	5.0	13.0	J	< 0.00107		< 0.00535		< 0.00268		< 0.00696		-	< 0.104		< 4.14		3.07	J	3.07
BH-3	1/18/2021	4-5	73	5.0	< 20.4		< 0.00104		< 0.00521		< 0.00261		< 0.00678		-	< 0.102		< 4.08		0.685	J	0.685
		6-7	52	2.0	< 21.0		< 0.00110		< 0.00550		< 0.00275		< 0.00715		-	< 0.105		< 4.20		1.42	J	1.42
		9-10	49	2.0	< 20.8		< 0.00108		< 0.00542		< 0.00271		< 0.00704		-	< 0.104		< 4.17		1.09	J	1.09
		0-1	89	3.0	32.0		< 0.00108		< 0.00542		< 0.00271		< 0.00705	T	-	< 0.104	1	< 4.17	J3	2.59	J	2.59
		2-3	76	5.0	36.2		< 0.00106		< 0.00530		< 0.00265		< 0.00689		-	< 0.103		< 4.12		2.53	ΒJ	2.53
BH-4	1/18/2021	4-5	81	5.0	12.9	J	< 0.00106		< 0.00530		< 0.00265		< 0.00689			< 0.103		< 4.12		0.365	ΒJ	0.365
		6-7	33	2.0	< 20.8		< 0.00108		< 0.00542		< 0.00271		< 0.00705		-	< 0.104		< 4.17		1.06	J	1.06
		9-10	29	2.0	< 21.1		< 0.00111		< 0.00554		< 0.00277		< 0.00720			< 0.105		< 4.22		0.620	J	0.620
		0-1	68	1.0	17.2	J	< 0.00105	1	< 0.00525	1	< 0.00262		< 0.00682	T	-	< 0.102	1	2.50	J	4.97		7.47
		2-3	87	1.0	15.5	J	< 0.00106		< 0.00528		< 0.00264		< 0.00687		-	< 0.103		2.24	J	4.15	В	6.39
BH-5	1/18/2021	4-5	57	2.0	< 20.5		0.000493	1 J3	< 0.00525	J3	< 0.00262	J3	< 0.00682		0.000493	< 0.102		< 4.10		1.11	ВJ	1.11
		6-7	49	2.0	< 21.1		< 0.00111		< 0.00553		< 0.00277		< 0.00719		-	< 0.105		< 4.21		1.30	J	1.30
		9-10	51	2.0	< 22.1		< 0.00121		< 0.00605		< 0.00302		< 0.00786		-	< 0.110		< 4.42		0.684	J	0.684

NOTES:

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ft. Feet

bgs Below ground surface

ppm Parts per million

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons GRO Gasoline range organics

DRO Diesel range organics

ORO Oil range organics

QUALIFIERS:

B The same analyte is found in the associated blank.

1 EPA Method 300.0 2 EPA Method 8260B

3 EPA Method 8015

4 EPA Method 8015D/GRO

J The identification of the analyte is acceptable; the reported value is an estimate.

Shaded rows indicate depth intervals proposed for excavation and remediation

Bold and italicized values indicate exceedance of Reclamation Requirements

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## APPENDIX A C-141 Forms

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

)

Incident ID	NRM2019933917
District RP	
Facility ID	
Application ID	

- 103.485

## **Release Notification**

## **Responsible Party**

Responsible Party ConocoPhillips Company	OGRID 217817					
Contact Name Kelsy Waggaman	Contact Telephone 505-577-9071					
Contact email Kelsy.Waggaman@ConocoPhillips.comIncident # (assigned by OCD)						
Contact mailing address 29 Vacuum Complex Lane, Lov	rington, NM 88260					

### **Location of Release Source**

Latitude <u>32.796111</u>

(NAD 83 in decimal degrees to 5 decimal places)

Site Name VGEU 02-20	Site Type Off location
Date Release Discovered 6/29/20	API# (if applicable) N/A

Unit Letter	Section	Township	Range	County
D	32	17S	35E	Lea

Surface Owner: X State Federal Tribal Private (Name: \_

## Nature and Volume of Release

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

K Crude Oil	Volume Released (bbls) 4	Volume Recovered (bbls) 0
Produced Water	Volume Released (bbls) 16	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Flowline split

Page 2

Incident ID	NRM2019933917
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Tres No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
	vas given to Bradford Billings and Jim Griswold, OCD by Kelsy coPhillips Environmental Coordinator on 6/30/20.

### **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.

X The impacted area has been secured to protect human health and the environment.

X Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name:	Kelsy Waggaman	Title: EI

	7/1	
Signature:	Kilyhlogyphin	Date: _7/10/20_

<b>T</b> '4	Environmental	Coordinator
Title	Linnorman	Coordination

email: Kelsy.Waggaman@ConocoPhillips.com Telephone: 505-577-9071

OCD Only

Received by:

Ramona Marcus

Date: 7/17/2020

#### L48 Spill Volume Estimate Form

	Facility Name & Number VGEU 02-20										
Received	Pagea	19 of 172 📃									
Received by OCD: 5/15/2021 9:24:58 PM NRM2019933917 Page 19/05 17/2											
		Release Type:	Oil Mixture								
Provide an	y known details	s about the event:	FL leak								
		· · · · · · · · · · · · · · · · · · ·		Spill Calculation - f	Subsurface Spill - Rectangle						
Wa	as the release o	on pad or off-pad?		· ·	On Pad - 10.5%; Off Pad - 15.12%	soil spilled-fluid sat	uration factor				
Has it rained at least	a half inch in th	ne last 24 hours?		Yes, On Pad	I - 8%; Off Pad - 13.57% soil spilled-	-fluid saturation facto	or; if No, use factors	above.			
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)		
Rectangle A	36.0	42.0	6.00	15.12%	134.568	20.347	20.00%	4.069	16.277		
27					0.000	0.000		0.000	0.000		
Rectangle C					0.000	0.000		0.000	0.000		
Rectangle D					0.000	0.000		0.000	0.000		
Rectangle E					0.000	0.000		0.000	0.000		
Rectangle F					0.000	0.000		0.000	0.000		
Rectangle G					0.000	0.000		0.000	0.000		
Rectangle H					0.000	0.000		0.000	0.000		
Rectangle I	to Tourse	in 6/20	/2021 9:47	7-52 434	0.000	0.000		0.000	0.000		
• Ascarguseu	to image	mg: 0/23	2021 9:41	.52 AM	0.000	0.000		0.000	0.000 •		
					Total Volume Release:	20.347		4.069	16.277		

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Oil Conservation Division

	Page 20 of 172
Incident ID	nRM2019933917
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?	<u>95</u> (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 <b>not</b> 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
- $\square$  Depth to water determination
- Determination of water sources and significant watercourses within <sup>1</sup>/<sub>2</sub>-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.

Received by OCD: 5/13/20.	21 9:24:58 PM State of New Mexico			Page 21 of 172
			Incident ID	nRM2019933917
Page 4	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
regulations all operators are public health or the environm failed to adequately investig		ifications and perform co DCD does not relieve the eat to groundwater, surfa responsibility for compl	prrective actions for rele e operator of liability sho ce water, human health liance with any other feo ager, Risk Manageme	ases which may endanger buld their operations have or the environment. In deral, state, or local laws
OCD Only Received by:		Data		
		Date:		

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Oil Conservation Division

<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

Incident ID	nRM2019933917
District RP	
Facility ID	
Application ID	

## **Remediation Plan**

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points  $\boxtimes$ Estimated volume of material to be remediated  $\boxtimes$ 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. Title: Program Manager, Risk Management & Remediation Printed Name: Marvin Soriwei Signature: \_\_\_\_ Date: 5/12/2021 email: marvin.soriwei@conocophillips.com Telephone: 8324862730 **OCD Only** Date: Received by: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

## APPENDIX B Site Characterization Data

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	been O=orp	DD has replace bhaned file is d)	ed, ,						2=NE 3 st to lar	3=SW 4=SE) gest) (NA	) AD83 UTM in me	eters)	(1	n feet)	
POD Number	Code	POD Sub- basin	Count	-	Q 16		Sec	Tws	Rng	х	Y	Distance	-	-	Water Column
L 14183 POD2		L	LE	3	2	2	31	17S	35E	641304	3629691 🌍	547	227	105	122
L 14183 POD1		L	LE	3	2	2	31	17S	35E	641266	3629667 🌍	585	229	106	123
L 14183 POD3		L	LE	3	2	2	31	17S	35E	641213	3629731 🌍	639	227	104	123
L 03875 S2	R	L	LE			2	31	17S	35E	641131	3629576* 🌍	730	120	95	25
L 03875 S4		L	LE			2	31	17S	35E	641131	3629576* 🌍	730	120		
											Avera	ge Depth to	Water:	102	feet
												Minimum	Depth:	95	feet
												Maximum	Depth:	106	feet
Record Count: 5															

UTMNAD83 Radius Search (in meters):

Easting (X): 641851.36

Northing (Y): 3629696.63

Radius: 800

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

Released to Imaging: 6/29/2021 9:47:52 AM

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



# VGEU 02-20 East Flowline Release



New Mexico Oil Conservation Division

## APPENDIX C Initial Response Waste Manifests

Received by OCD: 5/13/2021 9:2	4:58 PM			Page 28 of 172
nop	Customer: Customer #: Ordered by: AFE #: PO #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator: Generator #:	700-1155055 O6UJ9A0009Z1 7/8/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS	Manifest #: Manif. Date:	NA 7/8/2020	Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck #	MCNABB PARTNERS GUMER M32	Well #: Field: Field #:	020 6220 EHST
	Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

R

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

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

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. \_\_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/ Agent Signature

Customer Approval 

## THIS IS NOT AN INVOICE!

Approved By:

Date:

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7/15/2020 12:29:46PM

<b>Received by OCD: 5/13/2021</b>	9:24:58 PM			Page 29 of
<b>FR36</b> ENVIRONMENTAL SOLUTIONS	Customer: Customer #: Ordered by: AFE #: PO #: Manifest #: Manif. Date:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT NA 7/8/2020	Ticket #: Bid #: Date: Generator: Generator #: Well Ser. #: Well Name:	700-1155062 O6UJ9A0009Z1 7/8/2020 CONOCOPHILLIPS 37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck # Card # Job Ref #	MCNABB PARTNERS JESUS M31	Well #: Field: Field #: Rig: County	020 CZZO EAST NON-DRILLING LEA (NM)

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

Generator Certification Statement of Waste Status I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July

1988 regulatory determination, the above described waste is:

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characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items);

\_\_\_\_MSDS Information \_\_\_\_RCRA Hazardous Waste Analysis \_\_\_\_Process Knowledge \_\_\_ Other (Provide description above)

Driver/ Agent Signature

Customer Approval

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Approved By:

Date:

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7/15/2020 12:29:47PM

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eceived by OCD: 5/13/2021 9:24:58	PM			Page 30 o
R360	Customer: Customer #: Ordered by: AFE #: PO #: Manifest #: Manif. Date:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT NA 7/8/2020	Ticket #: Bid #: Date: Generator: Generator #: Well Ser. #: Well Name:	700-1155117 O6UJ9A0009Z1 7/8/2020 CONOCOPHILLIPS 37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck # Card # Job Ref #	MCNABB PARTNERS GUMER M32	Well #: Field: Field #: Rig: County	020 0 2 7 0 EAST NON-DRILLING LEA (NM)

R

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

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

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amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/ Agent Signature

Customer Approval

## THIS IS NOT AN INVOICE!

Approved By:

Date:

f 172

Received by OCD: 5/13/2021	9:24:58 PM			Page 31 of 172
<b>R36</b>	Customer: Customer #: Ordered by: AFE #: PO #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator: Generator #:	700-1155120 O6UJ9A0009Z1 7/8/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS	Manifest #: Manif. Date:	NA 7/8/2020	Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck #	MCNABB PARTNERS JESUS M31	Well #: Field: Field #:	020 0220 EAST
	Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

County

LEA (NM)

Facility: CRI

Product / Service											
Contaminated Soil (RCRA Exempt) 18.00 yards											
	Cell	pН	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						<u>*</u>

Generator Certification Statement of Waste Status  $I_{4,2,0}$ I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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

\_. RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

\_\_\_\_MSDS Information \_\_\_\_RCRA Hazardous Waste Analysis \_\_\_\_Process Knowledge \_\_\_\_Other (Provide description above)

Driver/ Agent Signature

Customer Approval 

## THIS IS NOT AN INVOICE!

Approved By:

Date:

t6UJ9A01FBTA

7/15/2020 12:29:48PM

<i>ceived by OCD: 5/13/202</i>	21 9:24:58 PM			Page 32 d
<b>R36</b>	Customer: Customer # Orderød by AFE #: PO #:		Ticket #: Bid #: Date: Generator: Generator #:	700-1155236 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS	Manifest #: Manif. Date	NA : 7/9/2020	Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck #	MCNABB PARTNERS GUMER M32	Well #: Field: Field #:	020 0220 EAST
	Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

Re

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

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

<u>X</u> RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by</u>

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/ Agent Signature

Gustomer Approval

## THIS IS NOT AN INVOICE!

Approved By:

Date:

\_\_\_\_\_

7/15/2020 12:29:48PM

Received by OCD: 5/13/2021 9:24:58	PM			Page 33 of
R360 ENVIRONMENTAL SOLUTIONS	Customer: Customer #: Ordered by: AFE #: PO #: Manifest #: Manif. Date:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT NA 7/9/2020	Ticket #: Bid #: Date: Generator: Generator #: Well Ser. #: Well Name:	700-1155239 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS 37850L
Permian Basin	Hauler: Driver Truck # Card #	MCNABB PARTNERS JESUS M31	Weil Name. Weil #: Field: Field #: Rig:	VACUUM GLORIETA EAST UNIT 020 0720 EAST NON-DRILLING
	Job Ref #		County	LEA (NM)

R

Product / Servi	Product / Service										
Contaminated Soll (RCRA Exempt) 18.00 yards											
	Cell	pН	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0			2.00		-	<u>_</u>

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

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

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characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

\_\_\_\_MSDS Information \_\_\_\_RCRA Hazardous Waste Analysis \_\_\_\_Process Knowledge \_\_\_\_Other (Provide description above)

Customer Approval

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Approved By:

Date:

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7/15/2020 12:29:49PM

of 172

Received by OCD: 5/13/2021 9:24	:58 PM			Page 34 o
<b>R36</b>	Customer: Customer #: Ordered by: AFE #: PO #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator: Generator #:	700-1155241 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS	Manifest #: Manif. Date:	NA 7/9/2020	Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck #	MCNABB PARTNERS JOE M81	Well #: Field: Field #:	020 0220 EAST
	Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

County

LEA (NM)

Facility: CRI

Product / Service											
Contaminated Soil (RCRA Exempt) 20.00 yards											
	Cell	рH	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2\$	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

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

Driver/ Agent Signature R360 Representative Signature

Customer Approval

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Approved By:

Date:

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Received by OCD: 5/13/2021 9:24:5	58 PM			Page 35 a
<b>R360</b>	Customer: Customer #: Ordered by: AFE #: PO #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator: Generator #:	700-1155266 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS	Manifest #: Manif. Date:	NA 7/9/2020	Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck #	MCNABB PARTNERS GUMER M32	Well #: Field: Field #:	020 0220 EAST
	Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

Product / Service *												
Contaminated Soil (RCRA Exempt)							18.00 yards					
	Cell	рН	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight	
Lab Analysis:	50/51	0.00	0.00	0.00	0		i	•••				

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

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. \_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/ Agent Signature R360 Representative Signature

Cüstomer Approval

## THIS IS NOT AN INVOICE!

Approved By:

Date:

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7/15/2020 12:29:50PM

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eceived by OCD: 5/13	/2021 9:24:58	PM			<b>Page 36 of 172</b>
R3	60	Customer: Customer #: Ordered by: AFE #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator:	700-1155271 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS		PO #: Manifest #: Manif. Date:	NA 7/9/2020	Generator #: Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin		Hauler: Driver Truck #	MCNABB PARTNERS JESUS M31	Well #: Field: Field #:	020 0220 EAST
		Card # Job Ref #		Rig: Countv	NON-DRILLING LEA (NM)

R

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

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

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/ Agent Signature # 100 - 100

Customer Approval

## THIS IS NOT AN INVOICE!

Approved By:

Date:

\_\_\_\_\_
Received by OCD: 5/1.	<i>3/2021 9:24:58</i>	PM			Page 37 of
<b>R</b> 3	60	Customer: Customer #: Ordered by: AFE #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator:	700-1155274 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS		PO #: Manifest #: Manif. Date:	NA 7 <i>191</i> 2020	Generator Generator #: Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin		Hauler: Driver Truck #	MCNABB PARTNERS JOE M81	Well #: Field: Field #:	0220 EAST
		Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

Product / Servi	cé	at in the second				ં " છે	Jantity Unit		P C S	化物理	
Contaminated §	Soil (RCR	A Exempt)	)				20.00 yaro	s			
	Cell	рН	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0			2.00		_	

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

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

\_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/Agent Signature

Customar Approval

### THIS IS NOT AN INVOICE!

Approved By:

Date:

\_\_\_\_\_

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Received by OCD: 5/13/2021 9:24	:58 PM			Page 38 of 172
R360	Customer: Customer #: Ordered by: AFE #: PO #: Manifest #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT NA	Ticket #: Bid #: Date: Generator: Generator #: Well Ser. #:	700-1155318 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS 37850L
SOLUTIONS	Manif. Date: Hauler:	7/9/2020 MCNABB PARTNERS	Well Name: Well #:	VACUUM GLORIETA EAST UNIT
	Driver Truck # Card # Job Ref #	GUMER M32	Field: Field #: Rig: County	UZZUEAST NON-DRILLING LEA (NM)

Product / Servi	Cê 🛝	海星型学			行行的行行		uantity/ Unit	<b>s</b> : // /			包括著作的社	í
Contaminated S	Soll (RCR	A Exempt)					18.00 yard	ls				
	Cell	pН	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight	
Lab Analysis:	50/51	0.00	0.00	0.00	0		· ·					

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

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/ Agent Signature

Customer Approval A

### THIS IS NOT AN INVOICE!

Approved By:

Date:

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Received by OCD: 5/13/2021 9:24:5	8 PM			Page 39 of 172
<b>R360</b>	Customer: Customer #: Ordered by: AFE #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator:	700-1155322 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS	PO #: Manifest #: Manif. Date:	NA 7/9/2020	Generator #: Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck #	MCNABB PARTNERS JESUS M31	Well #: Field: Field #:	020 0220 EMST
	Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

Product / Servi	ce 🦂 🖓	的是中国的	自动意用。这			Q	uantity Uni	<b>s</b>	<u> Service</u>			
Contaminated S	-			•			18.00 yard					
	Cell	pH	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight	
Lab Analysis:	50/51	0.00	0.00	0.00	0							

Generator, Certification Statement of Waste Status I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July

1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

\_\_\_\_MSDS Information \_\_\_\_RCRA Hazardous Waste Analysis \_\_\_\_ Process Knowledge \_\_\_ Other (Provide description above)

Driver/Agent Signature R360 Representative Signature

Customer Approval

### THIS IS NOT AN INVOICE!

Approved By:

Date:

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<b>R36</b>	Customer: Customer #: Ordered by: AFE #:	CONOCOPHILLIPS CRI2190 JUSTIN WRIGHT	Ticket #: Bid #: Date: Generator:	700-1155323 O6UJ9A0009Z1 7/9/2020 CONOCOPHILLIPS
ENVIRONMENTAL SOLUTIONS	PO #: Manifest #: Manif. Date:	NA 7/9/2020	Generator #: Well Ser. #: Well Name:	37850L VACUUM GLORIETA EAST UNIT
Permian Basin	Hauler: Driver Truck #	MCNABB PARTNERS JOE M81	Well #: Field: Field #:	020 0220 EAST
	Card # Job Ref #		Rig: County	NON-DRILLING LEA (NM)

Product / Servi	çe 🗇 🖅	t smart side of the	的游戏	S		Q	uantity Unit	<b>s</b> - 11 - 1	<b>1</b> 221212		
Contaminated a	Soil (RCR	A Exempt)	I				20.00 yaro	s			
	Cell	рН	CI	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

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

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by

characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as

amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

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

Driver/Agent Signature

Customer Approval

### THIS IS NOT AN INVOICE!

Approved By:

Date:

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7/15/2020 12:29:58PM

### APPENDIX D Laboratory Analytical Data



July 23, 2020

JUSTIN WRIGHT Conoco Phillips - Hobbs P. O. BOX 325 Hobbs, NM 88240

RE: VGEU 02 - 20

Enclosed are the results of analyses for samples received by the laboratory on 07/17/20 12:14.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240 Fax To: (575) 297-1477 Received: 07/17/2020 Sampling Date: 07/16/2020 Reported: 07/23/2020 Sampling Type: Soil Project Name: VGEU 02 - 20 Sampling Condition: Cool & Intact Project Number: VGEU 02-20 EAST Sample Received By: Tamara Oldaker Project Location: LEA CO NM

### Sample ID: SP # 1 (H001875-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	93.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	7730	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	<10.0	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	<10.0	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	98.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	99.3	% 42.2-15							

### Cardinal Laboratories

### \*=Accredited Analyte

Celecz D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 2 (H001875-02)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8640	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	<10.0	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	<10.0	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	97.1	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	97.3	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 3 (H001875-03)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17200	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	535	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	129	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	91.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	112 9	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 4 (H001875-04)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10800	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	37.6	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	15.0	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	113 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	117 9	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 5 (H001875-05)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11600	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	<10.0	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	<10.0	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	111 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	117 9	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 6 (H001875-06)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	128	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	33.8	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	100	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	109	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 7 (H001875-07)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22600	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	275	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	69.2	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	97.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	117	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477	,	
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 8 (H001875-08)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	284	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	76.9	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	126	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 9 (H001875-09)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11000	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	<10.0	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	<10.0	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	110	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 10 (H001875-10)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16800	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	50.8	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	15.1	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	110 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	121	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN W P. O. BOX Hobbs NM	325		
		Fax To:	(575) 297-1477	,	
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 11 (H001875-11)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14400	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	252	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	77.3	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	105	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	130	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 12 (H001875-12)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14800	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	165	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	48.4	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	97.2	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	112 9	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 13 (H001875-13)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	62.3	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	22.3	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	109	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	117	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WR P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 14 (H001875-14)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14100	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	<10.0	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	<10.0	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	108	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	115 9	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 15 (H001875-15)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10000	16.0	07/20/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	105	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	27.5	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	112	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	126	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 16 (H001875-16)

BTEX 8021B	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	15000	16.0	07/21/2020	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	136	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	37.4	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	93.8	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	105	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN W P. O. BOX Hobbs NM	325		
		Fax To:	(575) 297-1477	,	
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 17 (H001875-17)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	07/21/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	128	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	33.2	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	114 9	42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 18 (H001875-18)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2020	ND	1.84	91.9	2.00	7.94	
Toluene*	<0.050	0.050	07/18/2020	ND	1.84	92.0	2.00	8.14	
Ethylbenzene*	<0.050	0.050	07/18/2020	ND	1.85	92.3	2.00	8.21	
Total Xylenes*	<0.150	0.150	07/18/2020	ND	5.33	88.8	6.00	8.24	
Total BTEX	<0.300	0.300	07/18/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9860	16.0	07/21/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	227	114	200	1.32	
DRO >C10-C28*	<10.0	10.0	07/20/2020	ND	248	124	200	3.08	
EXT DRO >C28-C36	<10.0	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	109	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	118 9	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 19 (H001875-19)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2020	ND	2.00	99.8	2.00	4.26	
Toluene*	<0.050	0.050	07/20/2020	ND	2.01	101	2.00	4.15	
Ethylbenzene*	<0.050	0.050	07/20/2020	ND	2.02	101	2.00	4.61	
Total Xylenes*	<0.150	0.150	07/20/2020	ND	5.81	96.8	6.00	4.74	
Total BTEX	<0.300	0.300	07/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5280	16.0	07/21/2020	ND	416	104	400	0.00	QM-07
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	207	104	200	0.577	
DRO >C10-C28*	13.0	10.0	07/20/2020	ND	224	112	200	2.03	
EXT DRO >C28-C36	10.1	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	107	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 20 (H001875-20)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2020	ND	2.00	99.8	2.00	4.26	
Toluene*	0.065	0.050	07/21/2020	ND	2.01	101	2.00	4.15	
Ethylbenzene*	0.109	0.050	07/21/2020	ND	2.02	101	2.00	4.61	
Total Xylenes*	0.230	0.150	07/21/2020	ND	5.81	96.8	6.00	4.74	
Total BTEX	0.404	0.300	07/21/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	28800	16.0	07/21/2020	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	10.2	10.0	07/20/2020	ND	207	104	200	0.577	
DRO >C10-C28*	3220	10.0	07/20/2020	ND	224	112	200	2.03	
EXT DRO >C28-C36	824	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	107	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	220	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 21 (H001875-21)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2020	ND	2.00	99.8	2.00	4.26	
Toluene*	<0.050	0.050	07/20/2020	ND	2.01	101	2.00	4.15	
Ethylbenzene*	<0.050	0.050	07/20/2020	ND	2.02	101	2.00	4.61	
Total Xylenes*	<0.150	0.150	07/20/2020	ND	5.81	96.8	6.00	4.74	
Total BTEX	<0.300	0.300	07/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13000	16.0	07/21/2020	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2020	ND	207	104	200	0.577	
DRO >C10-C28*	426	10.0	07/20/2020	ND	224	112	200	2.03	
EXT DRO >C28-C36	105	10.0	07/20/2020	ND					
Surrogate: 1-Chlorooctane	104	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	112	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 22 (H001875-22)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2020	ND	1.95	97.7	2.00	1.67	
Toluene*	<0.050	0.050	07/21/2020	ND	1.96	97.9	2.00	1.46	
Ethylbenzene*	<0.050	0.050	07/21/2020	ND	1.96	97.8	2.00	1.85	
Total Xylenes*	<0.150	0.150	07/21/2020	ND	5.62	93.7	6.00	1.80	
Total BTEX	<0.300	0.300	07/21/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10400	16.0	07/21/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/21/2020	ND	220	110	200	0.522	
DRO >C10-C28*	<10.0	10.0	07/21/2020	ND	222	111	200	3.59	
EXT DRO >C28-C36	<10.0	10.0	07/21/2020	ND					
Surrogate: 1-Chlorooctane	95.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	97.3	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 23 (H001875-23)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2020	ND	1.95	97.7	2.00	1.67	
Toluene*	<0.050	0.050	07/21/2020	ND	1.96	97.9	2.00	1.46	
Ethylbenzene*	<0.050	0.050	07/21/2020	ND	1.96	97.8	2.00	1.85	
Total Xylenes*	<0.150	0.150	07/21/2020	ND	5.62	93.7	6.00	1.80	
Total BTEX	<0.300	0.300	07/21/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13400	16.0	07/21/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/21/2020	ND	220	110	200	0.522	
DRO >C10-C28*	542	10.0	07/21/2020	ND	222	111	200	3.59	
EXT DRO >C28-C36	138	10.0	07/21/2020	ND					
Surrogate: 1-Chlorooctane	72.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.6	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WR P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/17/2020			Sampling Date:	07/16/2020
Reported:	07/23/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	VGEU 02-20 EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP # 24 (H001875-24)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2020	ND	1.95	97.7	2.00	1.67	
Toluene*	<0.050	0.050	07/21/2020	ND	1.96	97.9	2.00	1.46	
Ethylbenzene*	<0.050	0.050	07/21/2020	ND	1.96	97.8	2.00	1.85	
Total Xylenes*	<0.150	0.150	07/21/2020	ND	5.62	93.7	6.00	1.80	
Total BTEX	<0.300	0.300	07/21/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	07/21/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/21/2020	ND	220	110	200	0.522	
DRO >C10-C28*	<10.0	10.0	07/21/2020	ND	222	111	200	3.59	
EXT DRO >C28-C36	<10.0	10.0	07/21/2020	ND					
Surrogate: 1-Chlorooctane	77.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	81.0	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

## Laboratories

Page 68 of 172

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

o %	- 47 1/	Factor +0.4	Thermometer ID Correction Factor	TO.	I Temp. °C A Yes Yes To Thermometer ID Correction Factor	No	- °	Corrected Temp. °C	Bus - Other:	Sampler - UPS - E
Bacteria Cool Int	Standard Rush	nd Time:	Turnaround Tim	CHECKED BY: (Initials)	Sample Condition Cool Intact		°C - 1.2 2	Observed Temp. °C		õ
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All Results are emailed. Please provide Email address:	☐ res ☐ No ailed. Please pro	s are email	All Results are	JULL.	and a	Received by:	S Nev	-17-	14	
			y client, its subsidia reasons or otherwi	usiness interruptions, loss of use, or loss of profits incurred by client, its subsidiaries of whether such claim is based upon any of the above stated reasons or otherwise.	nterruptions, loss of use r such claim is based u	mitation, business in gardless of whethe	by Cardinal, r	nce of services hereunder by Cardinal	sorvice. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, artiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	service. In no event shall Cardinal be liable for affiliates or successors arising out of or related
		or the the applicable	fter completion of t	all be limited to the amount by Cardinal within 30 days a	in writing and received	raived unless made	for any claim a If be deemed v	d client's exclusive remedy her cause whatsoever sha	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable	EASE NOTE: Liability and lyses. All claims including
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	6		TIME	D)	SLUDGE OTHER :	# CONTAINERS GROUNDWATER WASTEWATER SOIL	(G)RAB OR (C)OMP.	I.D.	Sample I.D.	Lab I.D.
			SAMPLING	PRESERV SAM	MATRIX PF	MA	_			FOR LAB USE ONLY
				•3	Fax #:				Justin Wright	Sampler Name:
	TEX	orid		le #:	Phone			MWN,	Lea County,	Project Location:
		es		: Zip:	State:			East	VGEU 02-20	Project Name:
		1			City:	COPC	ner:	Project Owner:		Project #:
				ess:	Address:			Fax #:	575-631-9092	Phone #:
					Attn:	#	Zip ₹	St NM	Hobbs	City: F
			lillips	pany: ConocoPhillips	Company:					Address:
				#:	P.O. 1			ht	Justin Wright	Project Manager:
ANALYSIS REQUEST				BILL TO					ConocoPhillips	company name.

### Received by OCD: 5/13/2021 9:24:58 PM

## Page 69 of 172

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

lo s	#113 1/17	#075 F0.4	Thermometer ID Correction Factor	1.0.	1	No Yes	□ţ		Corrected Temp. °C	- Bus - Other:	Sampler - UPS - Bus - Other
■ Bacteria (only) Sample Condition □ Cool Intact Observed Temp. °C	Standard Rush	le:	Turnaround Time:	CHECKED BY: (Initials)		Sample Condition Cool Intact	Samp	1.2	Observed Temp. °C	Circle One)	Delivered By: (Circle One)
									Time:		
			REMARKS:	5			Received By:	Receiv	Dăte:	By:	Relinquished By:
	1			Mr Sh	A	Dra	me		Time: 14	(h)	John Willer
Yes     No     Add'I Phone #: emailed. Please provide Email address:	Yes D No ed. Please provi	emailec	Verbal Result: All Results are	11 11	5		Received By:	Receiv	Date:	J.Â	Relinquished By:
		N GARAGE	reasons or otherwise.	or loss of profits incurred by c on any of the above stated re-	oss of use, o is based upo	limitation, business interruptions, loss of us regardless of whether such claim is based	tion, busines; dless of whet	without limita ardinal, regar	service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	Cardinal be liable for incidental o ising out of or related to the perfo	service. In no event shall Cardinal be liable for in affiliates or successors arising out of or related to
		cable	I by the client for the appli	be limited to the amount pair / Cardinal within 30 days afte	or tort, shall I received by	sed in contract	g whether ba d unless mac	claim arisir amed waive	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for neoligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable	and Damages. Cardinal's liability iding those for negligence and an	PLEASE NOTE: Liability analyses. All claims inclu
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			LING	PRESERV. SAMPLING	PRE	MATRIX	M	ΛP.			FOR LAB USE ONLY
	E				Fax #:				Ξ.	: Justin Wright	Sampler Name:
	втех	трн	lorid	#	Phone #:				Nm	Lea Coun	Project Location:
	(		es	Zip:	State:				East	VGEU 02-20	Project Name:
					City:		COPC		Project Owner:		Project #:
				ŝ	Address				Fax #:	575-631-9092	Phone #:
					Attn:			Zip ##	St NM 2	Hobbs	City:
			sd	ny: ConocoPhillips	Company:						Address:
					P.O. #:				ight	er: Justin Wright	Project Manager:
ANALYSIS REQUEST				BILL TO						e: ConocoPhillips	Company Name:

### Received by OCD: 5/13/2021 9:24:58 PM

FORM-006 R 3.0

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## Page 70 of 172 Gaboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

.

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

	10	Factor +0.4	Correction Factor	No.		No			pus - Other.	
Bacteri Cool I	Standard Rush	Turnaround Time:	Turnarou	CHECKED BY: (Initials)	Sample Condition	Sample	-1.2	Observed Temp. °C	Ircle One)	ô
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Verbal Result:  Verbal Result:	□ Yes □ No ailed. Please pro	esult: [ ts are ema	Verbal Result: All Results are	1 100	/	red By:	Received	Date: 7~17~00	111	Relinquished By:
		iaries, vise.	y client, its subsid reasons or othen	a, or loss of profits incurred b upon any of the above stated	erruptions, loss of us such claim is based	tion, business int dless of whether	without limita rdinal, regau	service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising ougof or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	ardinal be liable for incidental or c og outrof or related to the perform	service. In no event shall Cardinal b affiliates or successors arising out of
		or the f the applicable	vaid by the client f fter completion of	all be limited to the amount   by Cardinal within 30 days a	I in contract or tort, sh n writing and received	ig whether based ad unless made i	y claim arisit eemed waiv	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable	d Damages. Cardinal's liability an ig those for negligence and any c	PLEASE NOTE: Liability an Inalyses. All claims includin
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			SAMPLING	PRESERV. SAN		MATRIX	IP.			FOR LAB USE ONLY
		Ch			Fax				Justin Wright	Sampler Name:
	трн	lorid		e #:	Phone #:			lun	: Lea County,	Project Location:
	(	es		: Zip:	State:			East	VGEU 02-20	Project Name:
					City:	COPC		Project Owner:		Project #:
				ess:	Address:			Fax #:	575-631-9092	Phone #:
					Attn:		Zip ##	St NM	Hobbs	City:
			illips	pany: ConocoPhillips	Company:					Address:
				#	P.O.			ht	: Justin Wright	Project Manager:
ANALYSIS REQUEST				BILL TO					ConocoPhillips	Company Name:
		*							Variation of the second second	

### Received by OCD: 5/13/2021 9:24:58 PM

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



August 04, 2020

JUSTIN WRIGHT Conoco Phillips - Hobbs P. O. BOX 325

Hobbs, NM 88240

RE: VGEU 02 - 20

Enclosed are the results of analyses for samples received by the laboratory on 07/31/20 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



		Conoco Ph JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477	,	
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP 1A - 1' (H001978-01)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	08/03/2020	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	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	89.5 % 44.3-14		4						
Surrogate: 1-Chlorooctadecane	90.4	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager


		Conoco Phil JUSTIN WR P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP 1A - 2' (H001978-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	84.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	86.0	% 42.2-15	6						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phil JUSTIN WR P. O. BOX 3 Hobbs NM,	325		
		Fax To:	(575) 297-1477		
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP 2A - 1' (H001978-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	93.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	88.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	89.1	% 42.2-15	1						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN W P. O. BOX Hobbs NM	325		
		Fax To:	(575) 297-1477	7	
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP 2A - 2' (H001978-04)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5440	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	85.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	87.7	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN W P. O. BOX Hobbs NM	325		
		Fax To:	(575) 297-1477	7	
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP 3A - 1' (H001978-05)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3360	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	82.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	84.4	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Ph JUSTIN W P. O. BOX Hobbs NM	325		
		Fax To:	(575) 297-1477	7	
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: SP 3A - 2' (H001978-06)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	93.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3000	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	78.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	79.8	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phil JUSTIN WR P. O. BOX 3 Hobbs NM,	25		
		Fax To:	(575) 297-1477		
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: BACKGROUND - S (H001978-07)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	83.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.5	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phil JUSTIN WR P. O. BOX 3 Hobbs NM,	25		
		Fax To:			
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: BACKGROUND - E (H001978-08)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	149	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	33.5	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	83.2	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	93.0	% 42.2-15	6						

### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		Conoco Phi JUSTIN WF P. O. BOX Hobbs NM,	325		
		Fax To:	(575) 297-1477	7	
Received:	07/31/2020			Sampling Date:	07/30/2020
Reported:	08/04/2020			Sampling Type:	Soil
Project Name:	VGEU 02 - 20			Sampling Condition:	Cool & Intact
Project Number:	EAST			Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM				

### Sample ID: BACKGROUND - N (H001978-09)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2020	ND	1.90	94.8	2.00	0.0709	
Toluene*	<0.050	0.050	07/31/2020	ND	1.90	95.0	2.00	0.157	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	1.93	96.4	2.00	0.320	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.58	93.0	6.00	0.299	
Total BTEX	<0.300	0.300	07/31/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/03/2020	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	100	200	5.89	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	221	110	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					
Surrogate: 1-Chlorooctane	75.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	77.8	% 42.2-15	6						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **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 SM4500CI-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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

# Laboratories

Page 82 of 172

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

FORM-006 R 3.0	Delivered By: (Circle One) Sampler - UPS - Bus - Ot	Kelinguysned BY:	MIN M	arriery sea. All volumes including utope for the service. In no event shall Cardinal be liab affiliates or successors arising out of or re Relinquished, By:	PLEASE NOTE: Liability and Damages.		9 Backarown	8 Back	7 Beckar	P-4665 2	1- 41E ds	4 - APds h	3 SPar -	2 5P/A.	S	Lab I.D.	FOR LAB USE ONLY	Sampler Name: Jus	Project Location:	Project Name:	Project #:	Phone #: 575-631-9092	City: Hobbs	Address:	Project Manager:	
† Cardina	ne) Observed Temp. °C Other: Corrected Temp. °C	Date: Time:	100 AM	invoyces, in varius involving university in regularize and any other cause wratspeery fault be detered wared unless made in writing and received by Cardinal writin 30 days after completion of the applicably service. In one vent shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based uppe any of the above stated reasons or otherwise. Relinquished, BV:	PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the		1.	wound -E	calound - 5	-2'	-11	10-	-11	· @ .	-11	Sample I.D.		Justin Wright	lea Count	VEEV 02.20 East	Project Owner:	1-9092 Fax #:	St NM		Justin Wright	Concerninger
al cannot accept verbal	4.8 Sample ( Cool_ II ☐Yes □ No	Received By:	anna a	It be deemed walved unless made in writi uding without limitation, business interrup by Cardinal, regardless of whether such Received Bv:	for any claim arising whether based in co			G #	ፍ #	G #	G #	G #	G #	G #	G #	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	MATRIX		WN V	•	mer: COPC		Zip ##			
Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com	Condition CHECKED BY: ntact (Initials)		Aller Di	over's nail be deemed waved unless made in writing and received by Cardinal within 30 days after completion of the ages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiare thereunder by Cardinal, regardless of whether such claim is based upper any of the above stated reasons or otherwise Received BV:	ontract or tort, shall be limited to the amoun				# 7-30		# 7-30	# 7-30	# 7-30	# 7-30	# 7-30	SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	PRESERV.	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn:	Company: ConocoPhillips	P.O. #:	DILLIC
hanges to celey.keer	Turnaround Time: Thermometer ID #97 Correction Factor +9.4	REMARKS:	em	pplicabl	t paid by the client for the		5	5	5	7	5	5	4	W	5	TIME	SAMPLING		oride	25				hillips		
ne@cardinallabsnm.c	Standard 2 Rush #/13 +* 7:0. 7/31/20		please provid			3	2	7	1	1	1	11	۲ ۲	4	~ ~				TEX							ANA
	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Yes Yes No No Corrected Temp. °C		ie Email address:																							ANALYSIS REQUEST

### Received by OCD: 5/13/2021 9:24:58 PM



# ANALYTICAL REPORT

### **ConocoPhillips - Tetra Tech**

Sample Delivery Group:	L1308904
Samples Received:	01/21/2021
Project Number:	212-MD-02305
Description:	VGEU 02-20 East
Site:	LEA COUNTY, NM
Report To:	Christian Llull
	901 West Wall
	Suite 100
	Midland, TX 79701

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

Page 83 of 172

### Entire Report Reviewed By:

Erica Mc Neese

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.

### Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

Released to Imaging: %/29/2021 9:47:52 AM ConocoPhillips - Tetra Tech PROJECT: 212-MD-02305

SDG: L1308904

DA 01/2

DATE/TIME: 01/29/2110:17

**PAGE**: 1 of 42

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	7
Sr: Sample Results	8
BH-1 (2-3') L1308904-01	8
BH-1 (4-5') L1308904-02	9
BH-1 (6-7') L1308904-03	10
BH-1 (9-10') L1308904-04	11
BH-1 (15') L1308904-05	12
BH-1 (20') L1308904-06	13
BH-2 (0-1') L1308904-07	14
BH-2 (2-3) L1308904-08	15
BH-2 (4-5') L1308904-09	16
BH-3 (0-1') L1308904-10	17
BH-3 (2-3') L1308904-11	18
BH-3 (4-5') L1308904-12	19
BH-4 (0-1') L1308904-13	20
BH-4 (2-3') L1308904-14	21
BH-4 (4-5') L1308904-15	22
BH-5 (0-1') L1308904-16	23
BH-5 (2-3') L1308904-17	24
BH-5 (4-5') L1308904-18	25
Qc: Quality Control Summary	26
Total Solids by Method 2540 G-2011	26
Wet Chemistry by Method 300.0	28
Volatile Organic Compounds (GC) by Method 8015D/GRO	29
Volatile Organic Compounds (GC/MS) by Method 8260B	33
Semi-Volatile Organic Compounds (GC) by Method 8015	36
GI: Glossary of Terms	38
Al: Accreditations & Locations	39
Sc: Sample Chain of Custody	40



PROJECT: 212-MD-02305

SDG: L1308904

DATE/TIME: 01/29/21 10:17

PAGE: 2 of 42

### SAMPLE SUMMARY

ONE LAB. NAT Rage 85 of 22

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BH-1 (2-3') L1308904-01 Solid			Collected by John Thurston	Collected date/time 01/18/21 14:00	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	10	01/26/21 15:59	01/26/21 22:30	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1611906	1	01/22/21 13:49	01/27/21 06:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1611868	1	01/22/21 13:49	01/27/21 09:30	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 18:36	TJD	Mt. Juliet, TN
			Collected by	Collected date/time		
BH-1 (4-5') L1308904-02 Solid			John Thurston	01/18/21 14:05	01/21/21 09:0	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/26/21 22:49	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1611906	1	01/22/21 13:49	01/27/21 06:29	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1611868	1	01/22/21 13:49	01/27/21 09:49	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 18:49	TJD	Mt. Juliet, TN
BH-1 (6-7') L1308904-03 Solid			Collected by John Thurston	Collected date/time 01/18/21 14:10	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
	Baten	Bildtion	date/time	date/time	, maryoe	Location
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/26/21 22:58	ELN	Mt. Juliet, T
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1611906	1	01/22/21 13:49	01/27/21 06:50	DWR	Mt. Juliet, T
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 20:05	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 19:01	TJD	Mt. Juliet, TN
BH-1 (9-10') L1308904-04 Solid			Collected by John Thurston	Collected date/time 01/18/21 14:15	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, Ti
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/26/21 23:19	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1611906	1	01/22/21 13:49	01/27/21 07:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 20:24	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 19:15	TJD	Mt. Juliet, TN
BH-1 (15') L1308904-05 Solid			Collected by John Thurston	Collected date/time 01/18/21 14:20	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 03:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 00:06	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 20:43	DWR	Mt. Juliet, TN
				01/27/21 19:27	TJD	

PROJECT: 212-MD-02305

SDG: L1308904 DATE/TIME: 01/29/21 10:17

: 7 PAGE: 3 of 42

### SAMPLE SUMMARY

ONE LAB. NAT Rage 86 of 22

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BH-1 (20') L1308904-06 Solid			Collected by John Thurston	Collected date/time 01/18/21 14:25	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 00:07	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 00:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 21:02	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 19:41	TJD	Mt. Juliet, TN
			Collected by	Collected date/time		
BH-2 (0-1') L1308904-07 Solid			John Thurston	01/18/21 14:30	01/21/21 09:0	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 00:16	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 00:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 21:20	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 21:10	TJD	Mt. Juliet, T
			Collected by	Collected date/time	Received da	te/time
BH-2 (2-3) L1308904-08 Solid			John Thurston	01/18/21 14:35	01/21/21 09:0	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 00:32	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 01:09	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 21:39	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 21:23	TJD	Mt. Juliet, TN
			Collected by	Collected date/time		
BH-2 (4-5') L1308904-09 Solid			John Thurston	01/18/21 14:40	01/21/21 09:0	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611061	1	01/26/21 11:05	01/26/21 11:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 00:42	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 01:30	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 21:58	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 21:35	TJD	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
BH-3 (0-1') L1308904-10 Solid			John Thurston	01/18/21 14:55	01/21/21 09:0	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 00:51	ELN	Mt. Juliet, TM
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1605004	1	01/22/21 13:49	01/29/21 01:51	ACG	Mt. Juliet, TM
Volatile Organic Compounds (GC/MS) by Method 80(5D/0KO	WG1612066	1	01/22/21 13:49	01/27/21 22:17	DWR	Mt. Juliet, Th
VOIATILE UITGANIC COMPOLINGS IGCIMISTINV METROD X 7608	101012000		UN 22121 1J.TJ	V 11 L 1 L L . 11	Unit	m. Julici, II

PROJECT: 212-MD-02305

SDG: L1308904 DATE/TIME: 01/29/21 10:17

: 7 PAGE: 4 of 42

### SAMPLE SUMMARY

ONE LAB. NAT Rage 87 of 122

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BH-3 (2-3') L1308904-11 Solid			Collected by John Thurston	Collected date/time 01/18/21 15:00	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 01:01	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 02:12	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 22:37	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 22:01	TJD	Mt. Juliet, TN
BH-3 (4-5') L1308904-12 Solid			Collected by John Thurston	Collected date/time 01/18/21 15:05	Received da 01/21/21 09:0	
Method	Batch	Dilution	Proparation	Applycic	Applyct	Location
metriod	Balch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, Ti
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 01:14	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 02:33	ACG	Mt. Juliet, Ti
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 22:56	DWR	Mt. Juliet, Ti
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 22:13	TJD	Mt. Juliet, TI
			Collected by	Collected date/time	Received da	te/time
BH-4 (0-1') L1308904-13 Solid			John Thurston	01/18/21 15:20	01/21/21 09:0	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, TI
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 01:23	ELN	Mt. Juliet, T
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 02:53	ACG	Mt. Juliet, T
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612066	1	01/22/21 13:49	01/27/21 23:15	DWR	Mt. Juliet, T
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1611651	1	01/27/21 11:28	01/27/21 22:26	TJD	Mt. Juliet, T
			Collected by	Collected date/time	Received da	
BH-4 (2-3') L1308904-14 Solid			John Thurston	01/18/21 15:25	01/21/21 09:0	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, T
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 01:33	ELN	Mt. Juliet, TI
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612071	1	01/22/21 13:49	01/29/21 03:14	ACG	Mt. Juliet, T
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612070	1	01/22/21 13:49	01/28/21 12:47	JHH	Mt. Juliet, Tl
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612505	1	01/27/21 14:18	01/27/21 21:56	TJD	Mt. Juliet, TI
			Collected by	Collected date/time	Received da	te/time
BH-4 (4-5') L1308904-15 Solid			John Thurston	01/18/21 15:30	01/21/21 09:0	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, Ti
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 02:11	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612108	1	01/22/21 13:49	01/27/21 20:27	BMB	Mt. Juliet, TI
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612070	1	01/22/21 13:49	01/28/21 13:06	JHH	Mt. Juliet, TI
						,

Released to Imaging: 129/2021 9:47:52 AM ConocoPhillips - Tetra Tech PROJECT: 212-MD-02305

SDG: L1308904 DATE/TIME: 01/29/21 10:17

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PAGE: 5 of 42

### SAMPLE SUMMARY

ONE LAB. NAT Rage 88 of 22

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			Collected by	Collected date/time	Received da	te/time
BH-5 (0-1') L1308904-16 Solid			John Thurston	01/18/21 15:40	01/21/21 09:0	00
Nethod	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, TN
Net Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 01:42	ELN	Mt. Juliet, TN
olatile Organic Compounds (GC) by Method 8015D/GRO	WG1612206	1	01/22/21 13:49	01/28/21 00:58	TPR	Mt. Juliet, TN
olatile Organic Compounds (GC/MS) by Method 8260B	WG1612070	1	01/22/21 13:49	01/28/21 13:25	JHH	Mt. Juliet, TN
emi-Volatile Organic Compounds (GC) by Method 8015	WG1612505	1	01/27/21 14:18	01/27/21 22:36	TJD	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
BH-5 (2-3')   1308904-17 Solid			John Thurston	01/18/21 15:45	01/21/21 09:0	00

DH-3 (2-3) LISU0904-17 SUIIU						
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 02:30	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612206	1	01/22/21 13:49	01/28/21 01:20	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612070	1	01/22/21 13:49	01/28/21 13:43	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612505	1	01/27/21 14:18	01/27/21 22:10	TJD	Mt. Juliet, TN

BH-5 (4-5') L1308904-18 Solid			Collected by John Thurston	Collected date/time 01/18/21 15:50	Received dat 01/21/21 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1611063	1	01/26/21 10:57	01/26/21 11:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1609664	1	01/26/21 15:59	01/27/21 02:39	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1612206	1	01/22/21 13:49	01/28/21 01:44	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612070	1	01/22/21 13:49	01/28/21 14:03	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612505	1	01/27/21 14:18	01/27/21 21:43	TJD	Mt. Juliet, TN

SDG: L1308904

### CASE NARRATIVE

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 Mc Neese

Erica McNeese Project Manager

SDG: L1308904

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DATE/TIME: 01/29/21 10:17

PAGE: 7 of 42

# SAMPLE RESULTS - 01

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Collected date/time: 01/18/21 14:00

	Result	Qualifier	r Dilution	Analysis		Batch		
Analyte	%		•	date / time				
Total Solids	93.7		1	01/26/2021 11:12		WG1611061		
Wet Chemistry by	/ Method 30C	).0						
	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
Chloride	4330		98.2	214	10	01/26/2021 22:30	WC1600664	
Chionae	4000		90.2	214	10	01/26/2021 22:30	WG1609664	
Volatile Organic (		GC) by Met			10	01/26/2021 22.30	<u>WG1003004</u>	
		GC) by Met <u>Qualifier</u>			Dilution	Analysis	Batch	
	Compounds (		thod 8015	D/GRO				
Volatile Organic (	Compounds (( Result (dry)		thod 8015 MDL (dry)	D/GRO RDL (dry)		Analysis		

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000530	0.00114	1	01/27/2021 09:30	WG1611868
Toluene	U		0.00148	0.00568	1	01/27/2021 09:30	WG1611868
Ethylbenzene	U		0.000837	0.00284	1	01/27/2021 09:30	WG1611868
Total Xylenes	U		0.000999	0.00738	1	01/27/2021 09:30	WG1611868
(S) Toluene-d8	98.3			75.0-131		01/27/2021 09:30	WG1611868
(S) 4-Bromofluorobenzene	97.6			67.0-138		01/27/2021 09:30	WG1611868
(S) 1,2-Dichloroethane-d4	90.6			70.0-130		01/27/2021 09:30	WG1611868

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	12.6		1.72	4.27	1	01/27/2021 18:36	<u>WG1611651</u>
C28-C40 Oil Range	18.8		0.293	4.27	1	01/27/2021 18:36	<u>WG1611651</u>
(S) o-Terphenyl	40.5			18.0-148		01/27/2021 18:36	WG1611651

SDG: L1308904

Received by OCD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 14:05

SAMPLE RESULTS - 02 L1308904

ONE LAB. NAT Rage 91 of 122

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### Total Solids by Method 2540 G-2011

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	Result	Qualifier	Dilution	Analysis	Batch	Cp
Analyte	%			date / time		2
Total Solids	94.3		1	01/26/2021 11:12	WG1611061	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.75	21.2	1	01/26/2021 22:49	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	quantor	mg/kg	mg/kg	2.101.011	date / time		e
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	01/27/2021 06:29	WG1611906	
(S) a,a,a-Trifluorotoluene(FID)	94.0			77.0-120		01/27/2021 06:29	<u>WG1611906</u>	7

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000523	0.00112	1	01/27/2021 09:49	<u>WG1611868</u>
Toluene	U		0.00146	0.00560	1	01/27/2021 09:49	<u>WG1611868</u>
Ethylbenzene	U		0.000826	0.00280	1	01/27/2021 09:49	<u>WG1611868</u>
Total Xylenes	U		0.000986	0.00729	1	01/27/2021 09:49	<u>WG1611868</u>
(S) Toluene-d8	99.9			75.0-131		01/27/2021 09:49	<u>WG1611868</u>
(S) 4-Bromofluorobenzene	96.8			67.0-138		01/27/2021 09:49	<u>WG1611868</u>
(S) 1,2-Dichloroethane-d4	88.8			70.0-130		01/27/2021 09:49	WG1611868

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.71	4.24	1	01/27/2021 18:49	<u>WG1611651</u>
C28-C40 Oil Range	1.75	J	0.290	4.24	1	01/27/2021 18:49	<u>WG1611651</u>
(S) o-Terphenyl	55.7			18.0-148		01/27/2021 18:49	WG1611651

SDG: L1308904

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SAMPLE RESULTS - 03 L1308904

ONE LAB. NAT Rage 92 of 122

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### Total Solids by Method 2540 G-2011

	 Result	Qualifier	Dilution	Analysis	Batch		Ср
Analyte	%			date / time		-	2
Total Solids	94.9		1	01/26/2021 11:12	WG1611061		Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.69	21.1	1	01/26/2021 22:58	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	Result (ury)	Quanner	WDL (ury)	KDE (ury)	Diution	Analysis	Daten	6
Analyte	mg/kg		mg/kg	mg/kg		date / time		Q
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	01/27/2021 06:50	WG1611906	
(S) a,a,a-Trifluorotoluene(FID)	92.9			77.0-120		01/27/2021 06:50	WG1611906	<sup>7</sup> Gl

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000518	0.00111	1	01/27/2021 20:05	<u>WG1612066</u>
Toluene	U		0.00144	0.00554	1	01/27/2021 20:05	<u>WG1612066</u>
Ethylbenzene	U		0.000817	0.00277	1	01/27/2021 20:05	WG1612066
Total Xylenes	U		0.000975	0.00721	1	01/27/2021 20:05	<u>WG1612066</u>
(S) Toluene-d8	100			75.0-131		01/27/2021 20:05	<u>WG1612066</u>
(S) 4-Bromofluorobenzene	97.1			67.0-138		01/27/2021 20:05	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	89.8			70.0-130		01/27/2021 20:05	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.70	4.21	1	01/27/2021 19:01	WG1611651
C28-C40 Oil Range	3.01	J	0.289	4.21	1	01/27/2021 19:01	<u>WG1611651</u>
(S) o-Terphenyl	51.4			18.0-148		01/27/2021 19:01	WG1611651

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SAMPLE RESULTS - 04 L1308904

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### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	94.7		1	01/26/2021 11:12	WG1611061	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.71	21.1	1	01/26/2021 23:19	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
TPH (GC/FID) Low Fraction	U		0.0229	0.106	1	01/27/2021 07:10	WG1611906	
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		01/27/2021 07:10	<u>WG1611906</u>	

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

Result (dry)         Qualifier         MDL (dry)         RDL (dry)         Dilution         Analysis         Batch           Analyte         mg/kg         mg/kg         mg/kg         date / time         date / time           Benzene         U         0.000520         0.00111         1         01/27/2021 20:24         WG1612066           Toluene         U         0.00145         0.00556         1         01/27/2021 20:24         WG1612066           Ethylbenzene         U         0.000820         0.00278         1         01/27/2021 20:24         WG1612066           Total Xylenes         U         0.000979         0.00723         1         01/27/2021 20:24         WG1612066           (S) Toluene-d8         99.3         -         75.0-131         01/27/2021 20:24         WG1612066           (S) 4-Bromofluorobenzene         97.5         -         75.0-131         01/27/2021 20:24         WG1612066           (S) 1,2-Dichloroethane-d4         88.7         -         70.0-130         01/27/2021 20:24         WG1612066								
Benzene         U         0.000520         0.00111         1         01/27/2021 20:24         WG1612066           Toluene         U         0.00145         0.00556         1         01/27/2021 20:24         WG1612066           Ethylbenzene         U         0.000820         0.00278         1         01/27/2021 20:24         WG1612066           Total Xylenes         U         0.000979         0.00723         1         01/27/2021 20:24         WG1612066           (S) Toluene-d8         99.3         75.0-131         01/27/2021 20:24         WG1612066           (S) 4-Bromofluorobenzene         97.5         67.0-138         01/27/2021 20:24         WG1612066		Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Toluene         U         0.00145         0.00556         1         01/27/2021 20:24         WG1612066           Ethylbenzene         U         0.000820         0.00278         1         01/27/2021 20:24         WG1612066           Total Xylenes         U         0.000979         0.00723         1         01/27/2021 20:24         WG1612066           (S) Toluene-d8         99.3         75.0-131         01/27/2021 20:24         WG1612066           (S) 4-Bromofluorobenzene         97.5         67.0-138         01/27/2021 20:24         WG1612066	Analyte	mg/kg		mg/kg	mg/kg		date / time	
Ethylbenzene         U         0.000820         0.00278         1         01/27/2021 20:24         WG1612066           Total Xylenes         U         0.000979         0.00723         1         01/27/2021 20:24         WG1612066           (S) Toluene-d8         99.3         75.0-131         01/27/2021 20:24         WG1612066           (S) 4-Bromofluorobenzene         97.5         67.0-138         01/27/2021 20:24         WG1612066	Benzene	U		0.000520	0.00111	1	01/27/2021 20:24	<u>WG1612066</u>
Total Xylenes         U         0.000979         0.00723         1         01/27/2021 20:24         WG1612066           (s) Toluene-d8         99.3         75.0-131         01/27/2021 20:24         WG1612066           (s) 4-Bromofluorobenzene         97.5         67.0-138         01/27/2021 20:24         WG1612066	Toluene	U		0.00145	0.00556	1	01/27/2021 20:24	<u>WG1612066</u>
(S) Toluene-d8     99.3     75.0-131     01/27/2021 20:24     WG1612066       (S) 4-Bromofluorobenzene     97.5     67.0-138     01/27/2021 20:24     WG1612066	Ethylbenzene	U		0.000820	0.00278	1	01/27/2021 20:24	WG1612066
(S) 4-Bromofluorobenzene 97.5 67.0-138 01/27/2021 20:24 WG1612066	Total Xylenes	U		0.000979	0.00723	1	01/27/2021 20:24	<u>WG1612066</u>
	(S) Toluene-d8	99.3			75.0-131		01/27/2021 20:24	WG1612066
(S) 1,2-Dichloroethane-d4 88.7 70.0-130 01/27/2021 20:24 WG1612066	(S) 4-Bromofluorobenzene	97.5			67.0-138		01/27/2021 20:24	<u>WG1612066</u>
	(S) 1,2-Dichloroethane-d4	88.7			70.0-130		01/27/2021 20:24	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.70	4.22	1	01/27/2021 19:15	<u>WG1611651</u>
C28-C40 Oil Range	2.79	J	0.289	4.22	1	01/27/2021 19:15	<u>WG1611651</u>
(S) o-Terphenyl	58.7			18.0-148		01/27/2021 19:15	WG1611651

SDG: L1308904

PAGE: 11 of 42 Received by OCD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 14:20

SAMPLE RESULTS - 05 L1308904

ONE LAB. NAT Rage 94 of 172

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### Total Solids by Method 2540 G-2011

	 Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte	%			date / time		2
Total Solids	93.8		1	01/26/2021 11:12	<u>WG1611061</u>	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.81	21.3	1	01/27/2021 03:08	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		6
TPH (GC/FID) Low Fraction	U		0.0231	0.107	1	01/29/2021 00:06	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	94.3			77.0-120		01/29/2021 00:06	<u>WG1612071</u>	7

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000530	0.00113	1	01/27/2021 20:43	WG1612066
Toluene	U		0.00147	0.00567	1	01/27/2021 20:43	WG1612066
Ethylbenzene	U		0.000836	0.00284	1	01/27/2021 20:43	WG1612066
Total Xylenes	U		0.000998	0.00737	1	01/27/2021 20:43	<u>WG1612066</u>
(S) Toluene-d8	101			75.0-131		01/27/2021 20:43	WG1612066
(S) 4-Bromofluorobenzene	99.4			67.0-138		01/27/2021 20:43	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	88.9			70.0-130		01/27/2021 20:43	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.72	4.27	1	01/27/2021 19:27	<u>WG1611651</u>
C28-C40 Oil Range	U		0.292	4.27	1	01/27/2021 19:27	<u>WG1611651</u>
(S) o-Terphenyl	54.7			18.0-148		01/27/2021 19:27	WG1611651

SDG: L1308904

### Received 2:0 OCD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 14:25

SAMPLE RESULTS - 06

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### Total Solids by Method 2540 G-2011

						1 Cn
	Result	Qualifier	Dilution	Analysis	Batch	Cp
Analyte	%			date / time		2
Total Solids	96.1		1	01/26/2021 11:12	<u>WG1611061</u>	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
Chloride	399		9.57	20.8	1	01/27/2021 00:07	WG1609664	

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

Po	esult (dry) Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	ng/kg	mg/kg	mg/kg	Dilution	date / time	batch	6
TPH (GC/FID) Low Fraction U	ig/ikg	0.0226	0.104	1	01/29/2021 00:27	WG1612071	
(2)	3.0		77.0-120		01/29/2021 00:27	WG1612071	7

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

	Decult (dr.)	Qualifier	MDL (drai)	DDL (dm)	Dilution	Analycic	Datab
	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000505	0.00108	1	01/27/2021 21:02	<u>WG1612066</u>
Toluene	U		0.00141	0.00540	1	01/27/2021 21:02	<u>WG1612066</u>
Ethylbenzene	U		0.000797	0.00270	1	01/27/2021 21:02	WG1612066
Total Xylenes	U		0.000951	0.00703	1	01/27/2021 21:02	<u>WG1612066</u>
(S) Toluene-d8	99.0			75.0-131		01/27/2021 21:02	<u>WG1612066</u>
(S) 4-Bromofluorobenzene	97.9			67.0-138		01/27/2021 21:02	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	89.8			70.0-130		01/27/2021 21:02	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.16	1	01/27/2021 19:41	<u>WG1611651</u>
C28-C40 Oil Range	U		0.285	4.16	1	01/27/2021 19:41	<u>WG1611651</u>
(S) o-Terphenyl	42.4			18.0-148		01/27/2021 19:41	WG1611651

SDG: L1308904

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ONE LAB. NAT Rage 96 of 122

### Total Solids by Method 2540 G-2011

	-	Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte	c	6			date / time		2
Total Solids	Ç	6.3		1	01/26/2021 11:12	<u>WG1611061</u>	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	41.7		9.55	20.8	1	01/27/2021 00:16	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	01/29/2021 00:48	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		01/29/2021 00:48	WG1612071	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000503	0.00108	1	01/27/2021 21:20	<u>WG1612066</u>
Toluene	U		0.00140	0.00539	1	01/27/2021 21:20	<u>WG1612066</u>
Ethylbenzene	U		0.000794	0.00269	1	01/27/2021 21:20	WG1612066
Total Xylenes	U		0.000948	0.00700	1	01/27/2021 21:20	<u>WG1612066</u>
(S) Toluene-d8	100			75.0-131		01/27/2021 21:20	WG1612066
(S) 4-Bromofluorobenzene	98.1			67.0-138		01/27/2021 21:20	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	89.5			70.0-130		01/27/2021 21:20	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.15	1	01/27/2021 21:10	<u>WG1611651</u>
C28-C40 Oil Range	1.73	J	0.284	4.15	1	01/27/2021 21:10	<u>WG1611651</u>
(S) o-Terphenyl	46.3			18.0-148		01/27/2021 21:10	WG1611651

SDG: L1308904 DATI 01/29 Ss

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ONE LAB. NAT Rage 97. of 122

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### Total Solids by Method 2540 G-2011

	-	Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte		%			date / time		2
Total Solids		96.1		1	01/26/2021 11:12	WG1611061	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	L
Analyte	mg/kg		mg/kg	mg/kg		date / time		4
Chloride	36.0		9.57	20.8	1	01/27/2021 00:32	WG1609664	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		e
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	01/29/2021 01:09	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	94.1			77.0-120		01/29/2021 01:09	WG1612071	5

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000505	0.00108	1	01/27/2021 21:39	<u>WG1612066</u>
Toluene	U		0.00140	0.00540	1	01/27/2021 21:39	<u>WG1612066</u>
Ethylbenzene	U		0.000796	0.00270	1	01/27/2021 21:39	<u>WG1612066</u>
Total Xylenes	U		0.000951	0.00702	1	01/27/2021 21:39	<u>WG1612066</u>
(S) Toluene-d8	100			75.0-131		01/27/2021 21:39	<u>WG1612066</u>
(S) 4-Bromofluorobenzene	98.9			67.0-138		01/27/2021 21:39	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	90.5			70.0-130		01/27/2021 21:39	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.16	1	01/27/2021 21:23	<u>WG1611651</u>
C28-C40 Oil Range	0.629	J	0.285	4.16	1	01/27/2021 21:23	<u>WG1611651</u>
(S) o-Terphenyl	53.2			18.0-148		01/27/2021 21:23	WG1611651

SDG: L1308904 DAT 01/29 Received by BGD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 14:40

SAMPLE RESULTS - 09 L1308904

ONE LAB. NAT Rage 98 of 172

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### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	97.3		1	01/26/2021 11:12	WG1611061	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	22.3		9.45	20.5	1	01/27/2021 00:42	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		6
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	01/29/2021 01:30	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	92.6			77.0-120		01/29/2021 01:30	WG1612071	1

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000493	0.00106	1	01/27/2021 21:58	<u>WG1612066</u>
Toluene	U		0.00137	0.00528	1	01/27/2021 21:58	<u>WG1612066</u>
Ethylbenzene	U		0.000778	0.00264	1	01/27/2021 21:58	WG1612066
Total Xylenes	U		0.000929	0.00686	1	01/27/2021 21:58	<u>WG1612066</u>
(S) Toluene-d8	100			75.0-131		01/27/2021 21:58	WG1612066
(S) 4-Bromofluorobenzene	98.1			67.0-138		01/27/2021 21:58	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	91.8			70.0-130		01/27/2021 21:58	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.65	4.11	1	01/27/2021 21:35	<u>WG1611651</u>
C28-C40 Oil Range	U		0.282	4.11	1	01/27/2021 21:35	<u>WG1611651</u>
(S) o-Terphenyl	43.1			18.0-148		01/27/2021 21:35	<u>WG1611651</u>

SDG: L1308904

### Received by OCD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 14:55

# SAMPLE RESULTS - 10

### Total Solids by Method 2540 G-2011

	-	Result	Qualifier	Dilution	Analysis	Batch	Ср
А	nalyte	%			date / time	—	2
Т	otal Solids	92.2		1	01/26/2021 11:04	WG1611063	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.98	21.7	1	01/27/2021 00:51	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	Quanner	mg/kg	mg/kg	Dilution	date / time	batem	<sup>6</sup> Q
TPH (GC/FID) Low Fraction	U		0.0235	0.108	1	01/29/2021 01:51	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		01/29/2021 01:51	WG1612071	<sup>7</sup> G

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000546	0.00117	1	01/27/2021 22:17	<u>WG1612066</u>
Toluene	U		0.00152	0.00584	1	01/27/2021 22:17	<u>WG1612066</u>
Ethylbenzene	U		0.000861	0.00292	1	01/27/2021 22:17	WG1612066
Total Xylenes	U		0.00103	0.00760	1	01/27/2021 22:17	<u>WG1612066</u>
(S) Toluene-d8	99.5			75.0-131		01/27/2021 22:17	<u>WG1612066</u>
(S) 4-Bromofluorobenzene	97.8			67.0-138		01/27/2021 22:17	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	90.5			70.0-130		01/27/2021 22:17	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.75	4.34	1	01/27/2021 21:48	<u>WG1611651</u>
C28-C40 Oil Range	7.94		0.297	4.34	1	01/27/2021 21:48	<u>WG1611651</u>
(S) o-Terphenyl	36.9			18.0-148		01/27/2021 21:48	WG1611651

SDG: L1308904 DATE/TIME: 01/29/21 10:17

<sup>2</sup>Ss Cn

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### SAMPLE RESULTS - 11 L1308904

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### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	96.6		1	01/26/2021 11:04	<u>WG1611063</u>	Tc

### Wet Chemistry by Method 300.0

Wet Chemist	ry by Method 300	).0						<sup>3</sup> Ss
	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		$^{4}$ Cn
Chloride	13.0	J	9.52	20.7	1	01/27/2021 01:01	WG1609664	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	01/29/2021 02:12	WG1612071
(S) a,a,a-Trifluorotoluene(FID)	94.0			77.0-120		01/29/2021 02:12	WG1612071

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000500	0.00107	1	01/27/2021 22:37	<u>WG1612066</u>
Toluene	U		0.00139	0.00535	1	01/27/2021 22:37	<u>WG1612066</u>
Ethylbenzene	U		0.000789	0.00268	1	01/27/2021 22:37	<u>WG1612066</u>
Total Xylenes	U		0.000942	0.00696	1	01/27/2021 22:37	<u>WG1612066</u>
(S) Toluene-d8	100			75.0-131		01/27/2021 22:37	<u>WG1612066</u>
(S) 4-Bromofluorobenzene	97.7			67.0-138		01/27/2021 22:37	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	91.3			70.0-130		01/27/2021 22:37	<u>WG1612066</u>

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.14	1	01/27/2021 22:01	<u>WG1611651</u>
C28-C40 Oil Range	3.07	J	0.284	4.14	1	01/27/2021 22:01	<u>WG1611651</u>
(S) o-Terphenyl	66.2			18.0-148		01/27/2021 22:01	WG1611651

SDG: L1308904

Received by GGD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:05

### SAMPLE RESULTS - 12 L1308904

### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	97.9		1	01/26/2021 11:04	<u>WG1611063</u>	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
Chloride	U		9.39	20.4	1	01/27/2021 01:14	WG1609664	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	Quanner	mg/kg	mg/kg	Dilution	date / time	Baten	1
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	01/29/2021 02:33	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	94.3			77.0-120		01/29/2021 02:33	WG1612071	[

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000487	0.00104	1	01/27/2021 22:56	<u>WG1612066</u>
Toluene	U		0.00136	0.00521	1	01/27/2021 22:56	<u>WG1612066</u>
Ethylbenzene	U		0.000768	0.00261	1	01/27/2021 22:56	WG1612066
Total Xylenes	U		0.000917	0.00678	1	01/27/2021 22:56	WG1612066
(S) Toluene-d8	99.9			75.0-131		01/27/2021 22:56	WG1612066
(S) 4-Bromofluorobenzene	98.3			67.0-138		01/27/2021 22:56	WG1612066
(S) 1,2-Dichloroethane-d4	90.7			70.0-130		01/27/2021 22:56	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.64	4.08	1	01/27/2021 22:13	<u>WG1611651</u>
C28-C40 Oil Range	0.685	J	0.280	4.08	1	01/27/2021 22:13	<u>WG1611651</u>
(S) o-Terphenyl	59.5			18.0-148		01/27/2021 22:13	WG1611651

SDG: L1308904

DATE/TIME: 01/29/21 10:17 Ss Cn

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### SAMPLE RESULTS - 13 L1308904

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### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	96.0		1	01/26/2021 11:04	WG1611063	Tc

### Wet Chemistry by Method 300.0

Wet Chemistr	ry by Method 300	0.0						<sup>3</sup> Ss
	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		$^{4}$ Cn
Chloride	32.0		9.59	20.8	1	01/27/2021 01:23	WG1609664	CII

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	Quanner	mg/kg	mg/kg	Dilution	date / time	Batem	
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	01/29/2021 02:53	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	93.7			77.0-120		01/29/2021 02:53	WG1612071	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000506	0.00108	1	01/27/2021 23:15	<u>WG1612066</u>
Toluene	U		0.00141	0.00542	1	01/27/2021 23:15	<u>WG1612066</u>
Ethylbenzene	U		0.000799	0.00271	1	01/27/2021 23:15	WG1612066
Total Xylenes	U		0.000954	0.00705	1	01/27/2021 23:15	<u>WG1612066</u>
(S) Toluene-d8	99.1			75.0-131		01/27/2021 23:15	WG1612066
(S) 4-Bromofluorobenzene	97.7			67.0-138		01/27/2021 23:15	<u>WG1612066</u>
(S) 1,2-Dichloroethane-d4	89.4			70.0-130		01/27/2021 23:15	WG1612066

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U	<u>J3</u>	1.68	4.17	1	01/27/2021 22:26	WG1611651
C28-C40 Oil Range	2.59	J	0.286	4.17	1	01/27/2021 22:26	WG1611651
(S) o-Terphenyl	58.0			18.0-148		01/27/2021 22:26	WG1611651

SDG: L1308904

Received by 99D: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:25

# SAMPLE RESULTS - 14

### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	97.1		1	01/26/2021 11:04	<u>WG1611063</u>	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		4
Chloride	36.2		9.47	20.6	1	01/27/2021 01:33	WG1609664	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	01/29/2021 03:14	WG1612071	
(S) a,a,a-Trifluorotoluene(FID)	94.2			77.0-120		01/29/2021 03:14	<u>WG1612071</u>	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000495	0.00106	1	01/28/2021 12:47	WG1612070
Toluene	U		0.00138	0.00530	1	01/28/2021 12:47	WG1612070
Ethylbenzene	U		0.000781	0.00265	1	01/28/2021 12:47	WG1612070
Total Xylenes	U		0.000933	0.00689	1	01/28/2021 12:47	WG1612070
(S) Toluene-d8	100			75.0-131		01/28/2021 12:47	WG1612070
(S) 4-Bromofluorobenzene	100			67.0-138		01/28/2021 12:47	WG1612070
(S) 1,2-Dichloroethane-d4	92.2			70.0-130		01/28/2021 12:47	WG1612070

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.66	4.12	1	01/27/2021 21:56	WG1612505
C28-C40 Oil Range	2.53	ВJ	0.282	4.12	1	01/27/2021 21:56	WG1612505
(S) o-Terphenyl	60.8			18.0-148		01/27/2021 21:56	WG1612505

SDG: L1308904 DATE/TIME: 01/29/21 10:17

<sup>3</sup>Ss <sup>4</sup>Cn

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### Received by OGD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:30

### SAMPLE RESULTS - 15 L1308904

### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	97.1		1	01/26/2021 11:04	WG1611063	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		4
Chloride	12.9	J	9.47	20.6	1	01/27/2021 02:11	WG1609664	Ľ

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	01/27/2021 20:27	WG1612108	
(S) a,a,a-Trifluorotoluene(FID)	95.1			77.0-120		01/27/2021 20:27	WG1612108	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000495	0.00106	1	01/28/2021 13:06	WG1612070
Toluene	U		0.00138	0.00530	1	01/28/2021 13:06	WG1612070
Ethylbenzene	U		0.000781	0.00265	1	01/28/2021 13:06	WG1612070
Total Xylenes	U		0.000932	0.00689	1	01/28/2021 13:06	<u>WG1612070</u>
(S) Toluene-d8	99.0			75.0-131		01/28/2021 13:06	WG1612070
(S) 4-Bromofluorobenzene	97.2			67.0-138		01/28/2021 13:06	<u>WG1612070</u>
(S) 1,2-Dichloroethane-d4	91.1			70.0-130		01/28/2021 13:06	WG1612070

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.66	4.12	1	01/27/2021 21:29	WG1612505
C28-C40 Oil Range	0.365	<u>B J</u>	0.282	4.12	1	01/27/2021 21:29	WG1612505
(S) o-Terphenyl	54.5			18.0-148		01/27/2021 21:29	WG1612505

SDG: L1308904

DATE/TIME: 01/29/21 10:17 <sup>3</sup>Ss <sup>4</sup>Cn ⁵Sr

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### SAMPLE RESULTS - 16 L1308904

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### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte	%			date / time		2
Total Solids	97.6		1	01/26/2021 11:04	WG1611063	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	17.2	J	9.43	20.5	1	01/27/2021 01:42	WG1609664

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	quantor	mg/kg	mg/kg	2.100.011	date / time	201011	6
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	01/28/2021 00:58	WG1612206	L
(S) a,a,a-Trifluorotoluene(FID)	113			77.0-120		01/28/2021 00:58	WG1612206	7

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000490	0.00105	1	01/28/2021 13:25	<u>WG1612070</u>
Toluene	U		0.00136	0.00525	1	01/28/2021 13:25	<u>WG1612070</u>
Ethylbenzene	U		0.000773	0.00262	1	01/28/2021 13:25	<u>WG1612070</u>
Total Xylenes	U		0.000923	0.00682	1	01/28/2021 13:25	<u>WG1612070</u>
(S) Toluene-d8	101			75.0-131		01/28/2021 13:25	<u>WG1612070</u>
(S) 4-Bromofluorobenzene	98.4			67.0-138		01/28/2021 13:25	<u>WG1612070</u>
(S) 1,2-Dichloroethane-d4	91.8			70.0-130		01/28/2021 13:25	WG1612070

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.50	J	1.65	4.10	1	01/27/2021 22:36	WG1612505
C28-C40 Oil Range	4.97		0.281	4.10	1	01/27/2021 22:36	WG1612505
(S) o-Terphenyl	52.9			18.0-148		01/27/2021 22:36	WG1612505

SDG: L1308904

### Received by gGD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:45

### SAMPLE RESULTS - 17 L1308904

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### Total Solids by Method 2540 G-2011

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	Result	Qualifier	Dilution	Analysis	Batch	Cp
Analyte	%			date / time		2
Total Solids	97.3		1	01/26/2021 11:04	WG1611063	Tc

### Wet Chemistry by Method 300.0

Wet Chemistry b	by Method 300	0.0						<sup>3</sup> Se	5
	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch		
Analyte	mg/kg		mg/kg	mg/kg		date / time		4	n
Chloride	15.5	J	9.46	20.6	1	01/27/2021 02:30	WG1609664		. 1

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	qualifier	mg/kg	mg/kg	Dilution	date / time	Baten	
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	01/28/2021 01:20	WG1612206	
(S) a,a,a-Trifluorotoluene(FID)	113			77.0-120		01/28/2021 01:20	WG1612206	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000493	0.00106	1	01/28/2021 13:43	<u>WG1612070</u>
Toluene	U		0.00137	0.00528	1	01/28/2021 13:43	<u>WG1612070</u>
Ethylbenzene	U		0.000779	0.00264	1	01/28/2021 13:43	<u>WG1612070</u>
Total Xylenes	U		0.000930	0.00687	1	01/28/2021 13:43	<u>WG1612070</u>
(S) Toluene-d8	99.7			75.0-131		01/28/2021 13:43	<u>WG1612070</u>
(S) 4-Bromofluorobenzene	99.1			67.0-138		01/28/2021 13:43	<u>WG1612070</u>
(S) 1,2-Dichloroethane-d4	90.5			70.0-130		01/28/2021 13:43	<u>WG1612070</u>

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.24	J	1.66	4.11	1	01/27/2021 22:10	WG1612505
C28-C40 Oil Range	4.15	B	0.282	4.11	1	01/27/2021 22:10	WG1612505
(S) o-Terphenyl	54.5			18.0-148		01/27/2021 22:10	WG1612505

SDG: L1308904

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### SAMPLE RESULTS - 18 L1308904

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### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte	%			date / time		2
Total Solids	97.6		1	01/26/2021 11:04	<u>WG1611063</u>	Tc

### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
Chloride	U		9.43	20.5	1	01/27/2021 02:39	WG1609664	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	quanter	mg/kg	mg/kg	Bhation	date / time	Baten	
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	01/28/2021 01:44	WG1612206	
(S) a,a,a-Trifluorotoluene(FID)	112			77.0-120		01/28/2021 01:44	WG1612206	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000493	<u>J J3</u>	0.000490	0.00105	1	01/28/2021 14:03	<u>WG1612070</u>
Toluene	U	<u>J3</u>	0.00136	0.00525	1	01/28/2021 14:03	<u>WG1612070</u>
Ethylbenzene	U	<u>J3</u>	0.000774	0.00262	1	01/28/2021 14:03	<u>WG1612070</u>
Total Xylenes	U		0.000924	0.00682	1	01/28/2021 14:03	<u>WG1612070</u>
(S) Toluene-d8	98.8			75.0-131		01/28/2021 14:03	<u>WG1612070</u>
(S) 4-Bromofluorobenzene	98.6			67.0-138		01/28/2021 14:03	<u>WG1612070</u>
(S) 1,2-Dichloroethane-d4	90.1			70.0-130		01/28/2021 14:03	WG1612070

### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.65	4.10	1	01/27/2021 21:43	WG1612505
C28-C40 Oil Range	1.11	<u>B J</u>	0.281	4.10	1	01/27/2021 21:43	WG1612505
(S) o-Terphenyl	53.8			18.0-148		01/27/2021 21:43	WG1612505

SDG: L1308904

### Reg & g & by OB1 5/13/2021 9:24:58 PM

Total Solids by Method 2540 G-2011

### QUALITY CONTROL SUMMARY L1308904-01,02,03,04,05,06,07,08,09

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### Method Blank (MB)

(MB) R3616498-1	01/26/21 11:12					
	MB Result	MB Qualifier	MB MDL	MB RDL		
Analyte	%		%	%		
Total Solids	0.00200					

### L1308904-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1308904-01 01/26/2	21 11:12 • (DUP) F	R3616498-3 C	)1/26/21 11:	12		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	93.7	93.6	1	0.0433		10

### Laboratory Control Sample (LCS)

(LCS) R3616498-2 0	(LCS) R3616498-2 01/26/21 11:12					
	Spike Amour	t LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	%	%	%	%		
Total Solids	50.0	50.0	100	85.0-115		

DATE/TIME: 01/29/21 10:17

PAGE: 26 of 42
## Reg @ g by 0 B 35/13/2021 9:24:58 PM

Total Solids by Method 2540 G-2011

#### QUALITY CONTROL SUMMARY L1308904-10,11,12,13,14,15,16,17,18

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#### Method Blank (MB)

/26/21 11:04			-	
MB Result	MB Qualifier	MB MDL	MB RDL	
%		%	%	
0.00200				
`	26/21 11:04 MB Result %	26/21 11:04 MB Result <u>MB Qualifier</u> %	26/21 11:04 MB Result <u>MB Qualifier</u> MB MDL % %	26/21 11:04 MB Result <u>MB Qualifier</u> MB MDL MB RDL % % %

#### L1308904-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1308904-10 01/26	6/21 11:04 • (DUF	9) R3616496-3	01/26/21 11	.04		
	Original Resu	It DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	92.2	92.2	1	0.0563		10

## Laboratory Control Sample (LCS)

(LCS) R3616496-2 01/	CS) R3616496-2 01/26/21 11:04										
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier						
Analyte	%	%	%	%							
Total Solids	50.0	50.0	100	85.0-115							

DATE/TIME: 01/29/21 10:17

PAGE: 27 of 42

## Reg & g & g & 13/2021 9:24:58 PM

Wet Chemistry by Method 300.0

## QUALITY CONTROL SUMMARY L1308904-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18

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#### Method Blank (MB)

(MB) R3616563-1 01	/26/21 22:11			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0

#### L1308904-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1308904-01 01/26/2	OS) L1308904-01 01/26/21 22:30 • (DUP) R3616563-3 01/26/21 22:39 Original Result DUP Result DUP Result DIUP RPD DUP Qualifier Correction of the second seco													
			Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits								
Analyte	mg/kg	mg/kg		%		%								
Chloride	4330	4740	10	9.00		20								

#### L1308904-15 Original Sample (OS) • Duplicate (DUP)

L1308904-15	Original Sample	(OS) • Du	plicate (	DUP)			7
(OS) L1308904-15	01/27/21 02:11 • (DUP)	R3616563-7 (	01/27/21 02	2:20			 L
	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	IP RPD nits	
Analyte	mg/kg	mg/kg		%			
Chloride	12.9	10.6	1	19.7	Ţ		ę

#### Laboratory Control Sample (LCS)

(LCS) R3616563-4 01/26	LCS) R3616563-4 01/26/21 23:10											
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier							
Analyte	mg/kg	mg/kg	%	%								
Chloride	200	190	94.9	90.0-110								

## L1308904-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1308904-04 01/26/2	OS) L1308904-04 01/26/21 23:19 • (MS) R3616563-5 01/26/21 23:29 • (MSD) R3616563-6 01/26/21 23:38											
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	528	U	443	466	83.9	88.4	1	80.0-120			5.20	20

Released to	Imaging? 6/29/2021 9:47:52 AM
	ConocoPhillips - Tetra Tech

PROJECT: 212-MD-02305

SDG: L1308904

DATE/TIME: 01/29/21 10:17

PAGE: 28 of 42

## **Керсіна во 1065/13/2021 9:24:58 РМ**

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

# QUALITY CONTROL SUMMARY

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#### Method Blank (MB)

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21 00:16				
MB Result	MB Qualifier	MB MDL	MB RDL	
mg/kg		mg/kg	mg/kg	
U		0.0217	0.100	
92.8			77.0-120	
	21 OO:16 MB Result mg/kg U	21 OO:16 MB Result <u>MB Qualifier</u> mg/kg U	21 OO:16 MB Result <u>MB Qualifier</u> MB MDL mg/kg mg/kg U 0.0217	21 OO:16 MB Result <u>MB Qualifier</u> MB MDL MB RDL mg/kg mg/kg U 0.0217 0.100

## Laboratory Control Sample (LCS)

(LCS) R3616625-1 01/26/21 23:35										
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier					
Analyte	mg/kg	mg/kg	%	%						
TPH (GC/FID) Low Fraction	5.50	4.92	89.5	72.0-127						
(S) a.a.a-Trifluorotoluene(FID)			108	77.0-120						

#### L1308512-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1308512-01 01/27/2	OS) L1308512-01 01/27/21 00:58 • (MS) R3616625-3 01/27/21 07:52 • (MSD) R3616625-4 01/27/21 08:12											
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg				%	%		%			%	%
TPH (GC/FID) Low Fraction	173	U	246	265	96.0	103	31.5	10.0-151			7.54	28
(S) a,a,a-Trifluorotoluene(FID)					107	109		77.0-120				

DATE/TIME: 01/29/21 10:17

PAGE: 29 of 42

## Res @ q by 207: 5/13/2021 9:24:58 PM

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

#### QUALITY CONTROL SUMMARY L1308904-05,06,07,08,09,10,11,12,13,14

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#### Method Blank (MB)

	)				
(MB) R3617325-2 01/28/2	21 22:07				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/kg		mg/kg	mg/kg	
TPH (GC/FID) Low Fraction	U		0.0217	0.100	
(S) a,a,a-Trifluorotoluene(FID)	93.5			77.0-120	

#### Laboratory Control Sample (LCS)

(LCS) R3617325-1 01/28/2	21 21:25				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
TPH (GC/FID) Low Fraction	5.50	5.90	107	72.0-127	
(S) a.a.a.Trifluorotoluene(FID)			103	77.0-120	

#### L1310278-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1310278-08 01/28/21 23:04 • (MS) R3617325-3 01/29/21 05:40 • (MSD) R3617325-4 01/29/21 06:01												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TPH (GC/FID) Low Fraction	109	2.46	122	124	110	112	25	10.0-151			1.63	28
(S) a,a,a-Trifluorotoluene(FID)					111	111		77.0-120				

SDG: L1308904 DATE/TIME: 01/29/21 10:17 PAGE: 30 of 42

## Regen et by 20085/13/2021 9:24:58 PM

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

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

	<b>)</b>				$1^{1}$
(MB) R3616634-2 01/27/2	21 10:33				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/kg		mg/kg	mg/kg	T
TPH (GC/FID) Low Fraction	U		0.0217	0.100	
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120	3

### Laboratory Control Sample (LCS)

(LCS) R3616634-1 01/27/2	21 09:52				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
TPH (GC/FID) Low Fraction	5.50	5.21	94.7	72.0-127	
(S) a.a.a-Trifluorotoluene(FID)			100	77.0-120	

## <u> Каранару Дор:6/13/2021 9:24:58 РМ</u>

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

# QUALITY CONTROL SUMMARY

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#### Method Blank (MB)

Method Blank (ME	<b>)</b>				1	$^{1}$				
(MB) R3617045-2 01/28/2	MB) R3617045-2 01/28/21 00:14									
	MB Result	MB Qualifier	MB MDL	MB RDL	2	2				
Analyte	mg/kg		mg/kg	mg/kg	-	T				
TPH (GC/FID) Low Fraction	U		0.0217	0.100	L					
(S) a,a,a-Trifluorotoluene(FID)	114			77.0-120	3	³S				

## Laboratory Control Sample (LCS)

(LCS) R3617045-1 01/27/2	21 23:30				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
TPH (GC/FID) Low Fraction	5.50	6.32	115	72.0-127	
(S) a.a.a-Trifluorotoluene(FID)			104	77.0-120	

DATE/TIME: 01/29/21 10:17

PAGE: 32 of 42

#### QUALITY CONTROL SUMMARY L1308904-01,02

ONE LAB. NAPagev115 of 272

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#### Method Blank (MB)

(MB) R3616928-2 01/27/	21 04:12				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/kg		mg/kg	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	103			75.0-131	
(S) 4-Bromofluorobenzene	96.1			67.0-138	
(S) 1,2-Dichloroethane-d4	87.4			70.0-130	

## Laboratory Control Sample (LCS)

(LCS) R3616928-1 01/27/2	21 03:15				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Benzene	0.125	0.114	91.2	70.0-123	
Ethylbenzene	0.125	0.108	86.4	74.0-126	
Toluene	0.125	0.114	91.2	75.0-121	
Xylenes, Total	0.375	0.344	91.7	72.0-127	
(S) Toluene-d8			101	75.0-131	l
(S) 4-Bromofluorobenzene			99.2	67.0-138	
(S) 1,2-Dichloroethane-d4			100	70.0-130	

## L1308902-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1308902-01 01/27/21 06:44 • (MS) R3616928-3 01/27/21 12:02 • (MSD) R3616928-4 01/27/21 12:21												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Benzene	0.125	U	0.108	0.110	86.4	88.0	1	10.0-149			1.83	37
Ethylbenzene	0.125	U	0.107	0.109	85.6	87.2	1	10.0-160			1.85	38
Toluene	0.125	U	0.115	0.115	92.0	92.0	1	10.0-156			0.000	38
Xylenes, Total	0.375	U	0.321	0.330	85.6	88.0	1	10.0-160			2.76	38
(S) Toluene-d8					100	101		75.0-131				
(S) 4-Bromofluorobenzene					98.4	99.4		67.0-138				
(S) 1,2-Dichloroethane-d4					91.1	90.4		70.0-130				

SDG: L1308904

DATE/TIME: 01/29/21 10:17

PAGE: 33 of 42

## QUALITY CONTROL SUMMARY

L1308904-03,04,05,06,07,08,09,10,11,12,13

(MB) R3616912-2 01/27/21	I 19:46				
	MB Result	MB Qualifier	MB MDL	MB RDL	E
Analyte	mg/kg		mg/kg	mg/kg	-
Benzene	U		0.000467	0.00100	L
Ethylbenzene	U		0.000737	0.00250	1
Toluene	U		0.00130	0.00500	l
Xylenes, Total	U		0.000880	0.00650	Ŀ
(S) Toluene-d8	100			75.0-131	
(S) 4-Bromofluorobenzene	95.9			67.0-138	
(S) 1,2-Dichloroethane-d4	90.1			70.0-130	

## Laboratory Control Sample (LCS)

(LCS) R3616912-1 01/27/	) R3616912-1 01/27/21 18:49										
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	ľ					
Analyte	mg/kg	mg/kg	%	%		L					
Benzene	0.125	0.144	115	70.0-123		8					
Ethylbenzene	0.125	0.130	104	74.0-126							
Toluene	0.125	0.133	106	75.0-121							
Xylenes, Total	0.375	0.405	108	72.0-127							
(S) Toluene-d8			96.4	75.0-131		L					
(S) 4-Bromofluorobenzene	ć		99.6	67.0-138							
(S) 1,2-Dichloroethane-d4			98.8	70.0-130							

## L1308904-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1308904-13 01/27/27	(OS) L1308904-13 01/27/21 23:15 • (MS) R3616912-3 01/28/21 02:25 • (MSD) R3616912-4 01/28/21 02:44											
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Benzene	0.134	U	0.0870	0.120	64.7	89.5	1	10.0-149			32.2	37
Ethylbenzene	0.134	U	0.0805	0.112	59.8	83.1	1	10.0-160			32.5	38
Toluene	0.134	U	0.0825	0.114	61.4	84.7	1	10.0-156			31.9	38
Xylenes, Total	0.403	U	0.255	0.343	63.2	84.9	1	10.0-160			29.4	38
(S) Toluene-d8					99.7	98.3		75.0-131				
(S) 4-Bromofluorobenzene					99.2	97.4		67.0-138				
(S) 1,2-Dichloroethane-d4					90.7	93.3		70.0-130				

SDG: L1308904

DATE/TIME: 01/29/21 10:17

PAGE: 34 of 42

ONE LAB. NAPagev116 of 272

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# QUALITY CONTROL SUMMARY

ONE LAB. NAPagev112 of 22

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#### Method Blank (MB)

(MB) R3617193-3 01/28/21	10:52			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	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	99.0			75.0-131
(S) 4-Bromofluorobenzene	96.9			67.0-138
(S) 1,2-Dichloroethane-d4	90.4			70.0-130

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3617193-1 01/28/2	21 09:36 • (LCSD	) R3617193-2	01/28/21 09:55								
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits	
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%	
Benzene	0.125	0.113	0.116	90.4	92.8	70.0-123			2.62	20	
Ethylbenzene	0.125	0.106	0.110	84.8	88.0	74.0-126			3.70	20	
Toluene	0.125	0.111	0.115	88.8	92.0	75.0-121			3.54	20	
Xylenes, Total	0.375	0.323	0.339	86.1	90.4	72.0-127			4.83	20	
(S) Toluene-d8				97.6	97.1	75.0-131					
(S) 4-Bromofluorobenzene				101	102	67.0-138					
(S) 1,2-Dichloroethane-d4				99.9	97.6	70.0-130					

## L1308904-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1308904-18 01/28/21 14:03 • (MS) R3617193-4 01/28/21 17:32 • (MSD) R3617193-5 01/28/21 17:51												
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Benzene	0.130	0.000493	0.0542	0.0852	41.2	65.1	1	10.0-149		<u>J3</u>	44.6	37
Ethylbenzene	0.130	U	0.0517	0.0813	39.7	62.4	1	10.0-160		<u>J3</u>	44.5	38
Toluene	0.130	U	0.0552	0.0862	42.4	66.2	1	10.0-156		<u>J3</u>	43.8	38
Xylenes, Total	0.391	U	0.167	0.235	42.7	60.2	1	10.0-160			33.9	38
(S) Toluene-d8					99.3	97.3		75.0-131				
(S) 4-Bromofluorobenzene					97.8	96.1		67.0-138				
(S) 1,2-Dichloroethane-d4					93.9	92.4		70.0-130				

SDG: L1308904 DATE/TIME: 01/29/21 10:17 PAGE: 35 of 42 Semi-Volatile Organic Compounds (GC) by Method 8015

#### QUALITY CONTROL SUMMARY L1308904-01,02,03,04,05,06,07,08,09,10,11,12,13

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#### Method Blank (MB)

Method Blank (M	Ю)									
(MB) R3616785-1 01/27/21 17:44										
	MB Result M	<b>MB</b> Qualifier	MB MDL	MB RDL						
Analyte	mg/kg		mg/kg	mg/kg						
C10-C28 Diesel Range	U		1.61	4.00						
C28-C40 Oil Range	U		0.274	4.00						
(S) o-Terphenyl	43.8			18.0-148						

#### Laboratory Control Sample (LCS)

(LCS) R3616785-2 01/2	7/21 17:57				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
C10-C28 Diesel Range	50.0	36.2	72.4	50.0-150	
(S) o-Terphenyl			51.1	18.0-148	

#### L1308904-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1308904-13 01/27/2	122:26 • (MS) F	R3616785-3 01	/27/21 22:39 •	(MSD) R361678	35-4 01/27/21 2	22:52						
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
C10-C28 Diesel Range	51.9	U	35.5	28.0	68.5	57.2	1	50.0-150		<u>J3</u>	23.6	20
(S) o-Terphenyl					45.3	42.2		18.0-148				

DATE/TIME: 01/29/21 10:17

PAGE: 36 of 42 Semi-Volatile Organic Compounds (GC) by Method 8015

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#### Method Blank (MB)

	0)				
(MB) R3616804-1 01/27	/21 21:02				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/kg		mg/kg	mg/kg	Tc
C10-C28 Diesel Range	U		1.61	4.00	
C28-C40 Oil Range	0.413	J	0.274	4.00	<sup>3</sup> Ss
(S) o-Terphenyl	57.7			18.0-148	

#### Laboratory Control Sample (LCS)

(LCS) R3616804-2 01/27/21 21:15														
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier									
Analyte	mg/kg	mg/kg	%	%										
C10-C28 Diesel Range	50.0	32.6	65.2	50.0-150										
(S) o-Terphenyl			80.9	18.0-148										

DATE/TIME: 01/29/21 10:17 PAGE: 37 of 42

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#### 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

Abbreviations and	a 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

Qualifier	Description
В	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

SDG: L1308904 DATE/TIME: 01/29/21 10:17

## Received by OCD: 5/13/2021 9:24:58 PM CCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE. \* 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.

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Alabama	40660	Nebraska	NE-OS-15-05
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California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
lorida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
daho	TN00003	Ohio-VAP	CL0069
llinois	200008	Oklahoma	9915
ndiana	C-TN-01	Oregon	TN200002
owa	364	Pennsylvania	68-02979
lansas	E-10277	Rhode Island	LAO00356
Centucky <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
ouisiana	Al30792	Tennessee <sup>1 4</sup>	2006
ouisiana	LA018	Texas	T104704245-20-18
Naine	TN00003	Texas <sup>5</sup>	LAB0152
flaryland	324	Utah	TN000032021-11
lassachusetts	M-TN003	Vermont	VT2006
lichigan	9958	Virginia	110033
linnesota	047-999-395	Washington	C847
lississippi	TN00003	West Virginia	233
lissouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
PA–Crypto	TN00003		

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Alabama	40160		
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Texas	T104704328-20-18		

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

Page 121 o ONE LAB. NATIONWIDE.	f <u>17</u> 2
oratory. No other lab is as of the network tivity, decreasing HOICE.	<sup>1</sup> Cp
	<sup>2</sup> Tc
-OS-15-05	<sup>3</sup> Ss
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002	<sup>⁺</sup> Cn
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Released to Imaging: 8/29/2021 9:47:52 AM ConocoPhillips - Tetra Tech

PROJECT: 212-MD-02305

SDG: L1308904

DATE/TIME: 01/29/21 10:17

PAGE: 39 of 42

Page: 1 of 3

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lient Name:	Conoco Phillips	Site Manage	er:	Christ	ian Ll	ull									(0)							QUE					9
Project Name:	VGEU 02-20 EAST	Contact Info		Email: Phone					ech.co	om		1		1	(Ci	rcie		 	pe 		y n 	let					l
roject Location: county, state)	Lea County, New Mexico	Project #:		212C-	MD-0	2305	5																				
voice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 7970	и											0											i list)			
eceiving Laboratory:	Pace Analytical	Sampler Sig	nature:	Jo	hn Tì	hurst	on						0 - MR	-11-0	Se Hg									attached list)			
comments: COPTET	TRA Acctnum											8260B	RO - OR	10.00	Ag As Ba Cd Cr Pb Se Hg			4	8270C/625	13	2		TDS				
R	· · · · · · · · · · · · · · · · · · ·	SAMP	LING	MAT	RIX		SER	VATIV		2		BTEX 1	RO - DF	0.00	Ag As Ba (	les	COINT	50B / 62	ol. 8270	08				Chemistr	lance		
LAB # LAB USE ONLY	SAMPLE IDENTIFICATION	YEAR: 2021 DATE	TIME	WATER		HCL	HNO <sub>3</sub> ICE	NONE	# CONTAINEDS		FILTERED (Y	TEX 8021B BTEX 82 PH TX1005 (Ext to C35)	TPH 8015M ( GRO - DRO - ORO - MRO)	PAH 8270C	Metals	TCLP Volatiles		GC/MS Vol. 8260B / 624	GC/MS Semi. Vol.	PCB's 8082 / 608	NORM	PLM (Asbestos)	loride	13	nion/Cation Bala	TPH 8015R	ПОГР
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Analysis Request of Chain of Custody Record

Page: 2 of 3

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Project Location: county, state)	Lea County, New Mexico	Project #:		212	C-MD-	-023	305																					
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LAB #	SAMPLE IDENTIFICATION	DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	NONE			RTFX 80	TPH TX1	TPH 8015M ( GRO - DRO - ORO - MRO)	PAH 8270C Total Matals	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	ISCIMS Vol. 8260B / 624	GC/MS S	PCB's 8082 / 608	NORM DI M/Ach	PLM (Asbestos) Chloride 300.0	Chloride	General Water Chemist	TPH 8015R	
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## ANALYTICAL REPORT February 09, 2021

**Revised Report** 

## **ConocoPhillips - Tetra Tech**

Sample Delivery Group:	L1311652
Samples Received:	01/21/2021
Project Number:	212-MD-02305
Description:	VGEU 02-20 East
Site:	LEA COUNTY, NM
Report To:	Christian Llull
	901 West Wall
	Suite 100
	Midland, TX 79701

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Page 125 of 172

## Entire Report Reviewed By:

chu, toph June

Chris McCord 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.

## Pace Analytical National

Mount Juliet, TN 37122 12065 Lebanon Rd 615-758-5858 800-767-5859 www.pacenational.com

Released to Imaging: %/29/2021 9:47:52 AM ConocoPhillips - Tetra Tech

PROJECT: 212-MD-02305

SDG: L1311652

DATE/TIME: 02/09/21 09:24

PAGE: 1 of 24

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
BH-2 (6-7') L1311652-01	6
BH-2 (9-10') L1311652-02	7
BH-3 (6-7') L1311652-03	8
BH-3 (9-10') L1311652-04	9
BH-4 (6-7') L1311652-05	10
BH-4 (9-10') L1311652-06	11
BH-5 (6-7') L1311652-07	12
BH-5 (9-10') L1311652-08	13
Qc: Quality Control Summary	14
Total Solids by Method 2540 G-2011	14
Wet Chemistry by Method 300.0	15
Volatile Organic Compounds (GC) by Method 8015D/GRO	16
Volatile Organic Compounds (GC/MS) by Method 8260B	17
Semi-Volatile Organic Compounds (GC) by Method 8015	18
GI: Glossary of Terms	19
Al: Accreditations & Locations	20
Sc: Sample Chain of Custody	21

SDG: L1311652

DATE/TIME: 02/09/21 09:24

PAGE: 2 of 24 Received by OCD: 5/13/2021 9:24:58 PM

## SAMPLE SUMMARY

ONE LAB. NAPagev127 of 122

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BH-2 (6-7') L1311652-01 Solid			Collected by John Thurston	Collected date/time 01/18/21 14:45	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1615167	1	02/04/21 17:47	02/05/21 01:28	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 17:55	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 17:29	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614200	1	01/31/21 17:32	02/01/21 13:45	TJD	Mt. Juliet, TN
BH-2 (9-10') L1311652-02 Solid			Collected by John Thurston	Collected date/time 01/18/21 14:50	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1615167	1	02/04/21 17:47	02/05/21 01:56	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 20:12	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 17:48	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614200	1	01/31/21 17:32	02/01/21 13:58	TJD	Mt. Juliet, TN
BH-3 (6-7') L1311652-03 Solid			Collected by John Thurston	Collected date/time 01/18/21 15:10	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TI
Wet Chemistry by Method 300.0	WG1615167	1	02/04/2117:47	02/05/21 02:16	MCG	Mt. Juliet, T
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 20:32	ACG	Mt. Juliet, T
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 18:07	DWR	Mt. Juliet, T
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614200	1	01/31/21 17:32	02/01/21 14:11	TJD	Mt. Juliet, TI
BH-3 (9-10') L1311652-04 Solid			Collected by John Thurston	Collected date/time 01/18/21 15:15	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TI
Wet Chemistry by Method 300.0	WG1615167	1	02/04/21 17:47	02/05/21 02:25	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 20:53	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 18:26	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614200	1	01/31/21 17:32	02/01/21 14:24	TJD	Mt. Juliet, TN
BH-4 (6-7') L1311652-05 Solid			Collected by John Thurston	Collected date/time 01/18/21 15:35	Received da 01/21/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1615167	1	02/04/21 17:47	02/05/21 02:35	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 21:14	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 18:45	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614200	1	01/31/21 17:32	02/01/21 14:37	TJD	Mt. Juliet, TN

PROJECT: 212-MD-02305

SDG: L1311652 DATE/TIME: 02/09/21 09:24

PAGE: 3 of 24 Received by OCD: 5/13/2021 9:24:58 PM

Semi-Volatile Organic Compounds (GC) by Method 8015

## SAMPLE SUMMARY

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3H-4 (9-10') L1311652-06 Solid			Collected by John Thurston	Collected date/time 01/18/21 15:35	Received da 01/21/21 09:0	
Nethod	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
otal Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TN
Vet Chemistry by Method 300.0	WG1615167	1	02/04/21 17:47	02/05/21 03:03	MCG	Mt. Juliet, TN
/olatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 21:34	ACG	Mt. Juliet, TN
/olatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 19:04	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614200	1	01/31/21 17:32	02/01/21 14:50	TJD	Mt. Juliet, TN
			Collected by John Thurston	Collected date/time 01/18/21 15:55	Received da 01/21/21 09:0	
3H-5 (6-7') L1311652-07 Solid			John mulston	01/10/21 13:55	01/21/21/05.0	
<b>/</b> ethod	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
otal Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TN
Vet Chemistry by Method 300.0	WG1615167	1	02/04/21 17:47	02/05/21 03:13	MCG	Mt. Juliet, TN
/olatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 21:55	ACG	Mt. Juliet, TN
/olatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 19:23	DWR	Mt. Juliet, TN

BH-5 (9-10') L1311652-08 Solid			Collected by John Thurston	Collected date/time 01/18/21 16:00	Received dat 01/21/21 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Total Solids by Method 2540 G-2011	WG1615134	1	02/04/21 09:49	02/04/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1615167	1	02/04/21 17:47	02/05/21 03:22	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613977	1	01/30/21 10:02	01/31/21 22:16	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613926	1	01/30/21 10:02	01/30/21 19:42	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614200	1	01/31/21 17:32	02/01/21 15:17	TJD	Mt. Juliet, TN

WG1614200

01/31/21 17:32

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02/01/21 15:03

TJD

Mt. Juliet, TN

PROJECT: 212-MD-02305

SDG: L1311652 DATE/TIME: 02/09/21 09:24

PAGE: 4 of 24

## CASE NARRATIVE

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.

Chris McCord Project Manager

Report Revision History

Level II Report - Version 1: 02/05/21 16:05

PROJECT: 212-MD-02305

SDG: L1311652

DATE/TIME: 02/09/21 09:24 PAGE: 5 of 24

Τс Ss Cn Sr Qc GI AI Sc

## Received by OGD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 14:45

#### SAMPLE RESULTS - 01 L1311652

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#### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	93.6		1	02/04/2021 09:59	WG1615134	Tc

#### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.83	21.4	1	02/05/2021 01:28	WG1615167

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	Quanner	mg/kg	mg/kg	Dilution	date / time	buten	
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	01/31/2021 17:55	WG1613977	
(S) a,a,a-Trifluorotoluene(FID)	88.9			77.0-120		01/31/2021 17:55	WG1613977	

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

Result (dry)     Qualifier     MDL (dry)     RDL (dry)     Dilution     Analysis     Batch       Analyte     mg/kg     mg/kg     mg/kg     date / time     date / time       Benzene     U     0.000531     0.00114     1     01/30/202117:29     WG1613926       Toluene     U     0.00148     0.00569     1     01/30/202117:29     WG1613926       Ethylbenzene     U     0.000839     0.00284     1     01/30/202117:29     WG1613926       Total Xylenes     U     0.00100     0.00740     1     01/30/202117:29     WG1613926       (S) Toluene-d8     101     .     F5.0-131     01/30/202117:29     WG1613926       (S) Toluene-d8     101     .     F5.0-131     01/30/202117:29     WG1613926       (S) Toluene-d8     00.7     .     F7.0-138     01/30/202117:29     WG1613926       (S) 1,2-Dichloroethane-d4     90.7     .     70.0-130     01/30/202117:29     WG1613926								
Benzene     U     0.000531     0.00114     1     01/30/2021 17:29     WG1613926       Toluene     U     0.00148     0.00569     1     01/30/2021 17:29     WG1613926       Ethylbenzene     U     0.000839     0.00284     1     01/30/2021 17:29     WG1613926       Total Xylenes     U     0.00100     0.00740     1     01/30/2021 17:29     WG1613926       (S) Toluene-d8     101     75.0-131     01/30/2021 17:29     WG1613926       (S) 4-Bromofluorobenzene     101     67.0-138     01/30/2021 17:29     WG1613926		Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Toluene     U     0.00148     0.00569     1     01/30/2021 17:29     WG1613926       Ethylbenzene     U     0.000839     0.00284     1     01/30/2021 17:29     WG1613926       Total Xylenes     U     0.00100     0.00740     1     01/30/2021 17:29     WG1613926       (S) Toluene-d8     101     75.0-131     01/30/2021 17:29     WG1613926       (S) 4-Bromofluorobenzene     101     67.0-138     01/30/2021 17:29     WG1613926	Analyte	mg/kg		mg/kg	mg/kg		date / time	
Ethylbenzene     U     0.000839     0.00284     1     01/30/2021 17:29     WG1613926       Total Xylenes     U     0.00100     0.00740     1     01/30/2021 17:29     WG1613926       (S) Toluene-d8     101     75.0-131     01/30/2021 17:29     WG1613926       (S) 4-Bromofluorobenzene     101     67.0-138     01/30/2021 17:29     WG1613926	Benzene	U		0.000531	0.00114	1	01/30/2021 17:29	<u>WG1613926</u>
Total Xylenes     U     0.00100     0.00740     1     01/30/202117:29     WG1613926       (s) Toluene-d8     101     75.0-131     01/30/202117:29     WG1613926       (s) 4-Bromofluorobenzene     101     67.0-138     01/30/202117:29     WG1613926	Toluene	U		0.00148	0.00569	1	01/30/2021 17:29	<u>WG1613926</u>
(S) Toluene-d8 101 75.0-131 01/30/2021 17:29 WG1613926   (S) 4-Bromofluorobenzene 101 67.0-138 01/30/2021 17:29 WG1613926	Ethylbenzene	U		0.000839	0.00284	1	01/30/2021 17:29	WG1613926
(S) 4-Bromofluorobenzene 101 67.0-138 01/30/2021 17:29 WG1613926	Total Xylenes	U		0.00100	0.00740	1	01/30/2021 17:29	<u>WG1613926</u>
	(S) Toluene-d8	101			75.0-131		01/30/2021 17:29	WG1613926
(S) 1,2-Dichloroethane-d4 90.7 70.0-130 01/30/2021 17:29 WG1613926	(S) 4-Bromofluorobenzene	101			67.0-138		01/30/2021 17:29	<u>WG1613926</u>
	(S) 1,2-Dichloroethane-d4	90.7			70.0-130		01/30/2021 17:29	WG1613926

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.72	4.28	1	02/01/2021 13:45	WG1614200
C28-C40 Oil Range	2.90	J	0.293	4.28	1	02/01/2021 13:45	WG1614200
(S) o-Terphenyl	71.6			18.0-148		02/01/2021 13:45	WG1614200

SDG: L1311652

DATE/TIME: 02/09/21 09:24

## Received by 000: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 14:50

# SAMPLE RESULTS - 02

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## Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte	%			date / time		2
Total Solids	95.2		1	02/04/2021 09:59	WG1615134	Tc

#### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.67	21.0	1	02/05/2021 01:56	WG1615167

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	quanner	mg/kg	mg/kg	Dilution	date / time	Baten	<sup>6</sup> G
TPH (GC/FID) Low Fraction	U		0.0228	0.105	1	01/31/2021 20:12	WG1613977	
(S) a,a,a-Trifluorotoluene(FID)	89.7			77.0-120		01/31/2021 20:12	WG1613977	<sup>7</sup> G

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000514	0.00110	1	01/30/2021 17:48	<u>WG1613926</u>
Toluene	U		0.00143	0.00551	1	01/30/2021 17:48	<u>WG1613926</u>
Ethylbenzene	U		0.000812	0.00275	1	01/30/2021 17:48	WG1613926
Total Xylenes	U		0.000969	0.00716	1	01/30/2021 17:48	<u>WG1613926</u>
(S) Toluene-d8	102			75.0-131		01/30/2021 17:48	WG1613926
(S) 4-Bromofluorobenzene	96.3			67.0-138		01/30/2021 17:48	<u>WG1613926</u>
(S) 1,2-Dichloroethane-d4	90.7			70.0-130		01/30/2021 17:48	<u>WG1613926</u>

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.69	4.20	1	02/01/2021 13:58	WG1614200
C28-C40 Oil Range	1.87	J	0.288	4.20	1	02/01/2021 13:58	WG1614200
(S) o-Terphenyl	68.6			18.0-148		02/01/2021 13:58	WG1614200

SDG: L1311652 DATE/TIME: 02/09/21 09:24

Received by OCD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:10

#### SAMPLE RESULTS - 03 L1311652

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## Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	95.2		1	02/04/2021 09:59	WG1615134	Tc

#### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.66	21.0	1	02/05/2021 02:16	WG1615167

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	Quanter	mg/kg	mg/kg	Dilution	date / time	Baten	<sup>6</sup> Q
TPH (GC/FID) Low Fraction	U		0.0228	0.105	1	01/31/2021 20:32	WG1613977	
(S) a,a,a-Trifluorotoluene(FID)	90.0			77.0-120		01/31/2021 20:32	WG1613977	<sup>7</sup> G

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000514	0.00110	1	01/30/2021 18:07	<u>WG1613926</u>
Toluene	U		0.00143	0.00550	1	01/30/2021 18:07	<u>WG1613926</u>
Ethylbenzene	U		0.000811	0.00275	1	01/30/2021 18:07	WG1613926
Total Xylenes	U		0.000968	0.00715	1	01/30/2021 18:07	<u>WG1613926</u>
(S) Toluene-d8	103			75.0-131		01/30/2021 18:07	WG1613926
(S) 4-Bromofluorobenzene	95.8			67.0-138		01/30/2021 18:07	<u>WG1613926</u>
(S) 1,2-Dichloroethane-d4	90.1			70.0-130		01/30/2021 18:07	WG1613926

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.69	4.20	1	02/01/2021 14:11	WG1614200
C28-C40 Oil Range	1.42	J	0.288	4.20	1	02/01/2021 14:11	WG1614200
(S) o-Terphenyl	77.1			18.0-148		02/01/2021 14:11	WG1614200

SDG: L1311652

DATE/TIME: 02/09/21 09:24

## SAMPLE RESULTS - 04

#### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	96.0		1	02/04/2021 09:59	WG1615134	Tc

#### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.58	20.8	1	02/05/2021 02:25	WG1615167

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	01/31/2021 20:53	<u>WG1613977</u>	
(S) a,a,a-Trifluorotoluene(FID)	89.4			77.0-120		01/31/2021 20:53	<u>WG1613977</u>	

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

Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry)	Dilution	Analysis	Batch
mg/kg		ma/ka				
			mg/kg		date / time	
U		0.000506	0.00108	1	01/30/2021 18:26	<u>WG1613926</u>
U		0.00141	0.00542	1	01/30/2021 18:26	<u>WG1613926</u>
U		0.000798	0.00271	1	01/30/2021 18:26	WG1613926
U		0.000953	0.00704	1	01/30/2021 18:26	<u>WG1613926</u>
104			75.0-131		01/30/2021 18:26	WG1613926
96.6			67.0-138		01/30/2021 18:26	<u>WG1613926</u>
93.0			70.0-130		01/30/2021 18:26	WG1613926
	U U U 104 96.6	U U U 104 96.6	U 0.00141 U 0.000798 U 0.000953 104 96.6	U     0.00141     0.00542       U     0.000798     0.00271       U     0.000953     0.00704       104     75.0-131       96.6     67.0-138	U   0.00141   0.00542   1     U   0.000798   0.00271   1     U   0.000953   0.00704   1     104   75.0-131	U     0.00141     0.00542     1     01/30/2021 18:26       U     0.000798     0.00271     1     01/30/2021 18:26       U     0.000953     0.00704     1     01/30/2021 18:26       U     0.000953     0.00704     1     01/30/2021 18:26       104     75.0-131     01/30/2021 18:26     01/30/2021 18:26       96.6     67.0-138     01/30/2021 18:26

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.68	4.17	1	02/01/2021 14:24	WG1614200
C28-C40 Oil Range	1.09	J	0.285	4.17	1	02/01/2021 14:24	WG1614200
(S) o-Terphenyl	71.0			18.0-148		02/01/2021 14:24	WG1614200

SDG: L1311652 DATE/TIME: 02/09/21 09:24

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Received by OGD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:35

# SAMPLE RESULTS - 05

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## Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte	%			date / time		2
Total Solids	95.9		1	02/04/2021 09:59	WG1615134	Tc

#### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.59	20.8	1	02/05/2021 02:35	WG1615167

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	01/31/2021 21:14	WG1613977	
(S) a,a,a-Trifluorotoluene(FID)	89.7			77.0-120		01/31/2021 21:14	WG1613977	

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000507	0.00108	1	01/30/2021 18:45	<u>WG1613926</u>
Toluene	U		0.00141	0.00542	1	01/30/2021 18:45	<u>WG1613926</u>
Ethylbenzene	U		0.000800	0.00271	1	01/30/2021 18:45	WG1613926
Total Xylenes	U		0.000955	0.00705	1	01/30/2021 18:45	<u>WG1613926</u>
(S) Toluene-d8	102			75.0-131		01/30/2021 18:45	WG1613926
(S) 4-Bromofluorobenzene	102			67.0-138		01/30/2021 18:45	<u>WG1613926</u>
(S) 1,2-Dichloroethane-d4	92.0			70.0-130		01/30/2021 18:45	WG1613926

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.68	4.17	1	02/01/2021 14:37	WG1614200
C28-C40 Oil Range	1.06	J	0.286	4.17	1	02/01/2021 14:37	WG1614200
(S) o-Terphenyl	76.5			18.0-148		02/01/2021 14:37	WG1614200

SDG: L1311652 DATE/TIME: 02/09/21 09:24

## Received by OCP: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:35

# SAMPLE RESULTS - 06

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## Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		2
Total Solids	94.9		1	02/04/2021 09:59	WG1615134	Tc

#### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.70	21.1	1	02/05/2021 03:03	WG1615167

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	quanner	mg/kg	mg/kg	Dilution	date / time	Baten	6 C
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	01/31/2021 21:34	WG1613977	
(S) a,a,a-Trifluorotoluene(FID)	91.0			77.0-120		01/31/2021 21:34	WG1613977	<sup>7</sup> G

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000517	0.00111	1	01/30/2021 19:04	<u>WG1613926</u>
Toluene	U		0.00144	0.00554	1	01/30/2021 19:04	<u>WG1613926</u>
Ethylbenzene	U		0.000816	0.00277	1	01/30/2021 19:04	WG1613926
Total Xylenes	U		0.000975	0.00720	1	01/30/2021 19:04	<u>WG1613926</u>
(S) Toluene-d8	104			75.0-131		01/30/2021 19:04	WG1613926
(S) 4-Bromofluorobenzene	98.1			67.0-138		01/30/2021 19:04	<u>WG1613926</u>
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		01/30/2021 19:04	WG1613926

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.70	4.22	1	02/01/2021 14:50	WG1614200
C28-C40 Oil Range	0.620	J	0.289	4.22	1	02/01/2021 14:50	WG1614200
(S) o-Terphenyl	60.1			18.0-148		02/01/2021 14:50	WG1614200

SDG: L1311652 DATE/TIME: 02/09/21 09:24

Received by OGD: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 15:55

SAMPLE RESULTS - 07 L1311652

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#### Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch		Ср
Analyte	%			date / time		-	2
Total Solids	95.0		1	02/04/2021 09:59	WG1615134		Tc

#### Wet Chemistry by Method 300.0

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.69	21.1	1	02/05/2021 03:13	WG1615167

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	01/31/2021 21:55	WG1613977	
(S) a,a,a-Trifluorotoluene(FID)	89.6			77.0-120		01/31/2021 21:55	WG1613977	

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

Result (dry)     Qualifier     MDL (dry)     RDL (dry)     Dilution     Analysis     Batch       Analyte     mg/kg     mg/kg     mg/kg     date / time     date / time       Benzene     U     0.000517     0.00111     1     01/30/202119:23     WG1613926       Toluene     U     0.000815     0.00277     1     01/30/202119:23     WG1613926       Ethylbenzene     U     0.000974     0.00719     1     01/30/202119:23     WG1613926       Total Xylenes     U     0.000974     0.00719     1     01/30/202119:23     WG1613926       (S) Toluene-d8     103     -     75.0-131     01/30/202119:23     WG1613926       (S) 7-Dichoroethane-d4     95.4     -     70.0-130     01/30/202119:23     WG1613926								
Benzene     U     0.000517     0.00111     1     01/30/2021 19:23     WG1613926       Toluene     U     0.00144     0.00553     1     01/30/2021 19:23     WG1613926       Ethylbenzene     U     0.000815     0.00277     1     01/30/2021 19:23     WG1613926       Total Xylenes     U     0.000974     0.00719     1     01/30/2021 19:23     WG1613926       (S) Toluene-d8     103     75.0-131     01/30/2021 19:23     WG1613926       (S) 4-Bromofiluorobenzene     98.9     67.0-138     01/30/2021 19:23     WG1613926		Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Toluene     U     0.00144     0.00553     1     01/30/2021 19:23     WG1613926       Ethylbenzene     U     0.000815     0.00277     1     01/30/2021 19:23     WG1613926       Total Xylenes     U     0.000974     0.00719     1     01/30/2021 19:23     WG1613926       (S) Toluene-d8     103     75.0-131     01/30/2021 19:23     WG1613926       (S) 4-Bromofluorobenzene     98.9     67.0-138     01/30/2021 19:23     WG1613926	Analyte	mg/kg		mg/kg	mg/kg		date / time	
Ethylbenzene     U     0.000815     0.00277     1     01/30/2021 19:23     WG1613926       Total Xylenes     U     0.000974     0.00719     1     01/30/2021 19:23     WG1613926       (S) Toluene-d8     103     75.0-131     01/30/2021 19:23     WG1613926       (S) 4-Bromofluorobenzene     98.9     67.0-138     01/30/2021 19:23     WG1613926	Benzene	U		0.000517	0.00111	1	01/30/2021 19:23	WG1613926
Total Xylenes     U     0.000974     0.00719     1     01/30/2021 19:23     WG1613926       (S) Toluene-d8     103     75.0-131     01/30/2021 19:23     WG1613926       (S) 4-Bromofluorobenzene     98.9     67.0-138     01/30/2021 19:23     WG1613926	Toluene	U		0.00144	0.00553	1	01/30/2021 19:23	<u>WG1613926</u>
(S) Toluene-d8 103 75.0-131 01/30/2021 19:23 WG1613926   (S) 4-Bromofluorobenzene 98.9 67.0-138 01/30/2021 19:23 WG1613926	Ethylbenzene	U		0.000815	0.00277	1	01/30/2021 19:23	WG1613926
(S) 4-Bromofluorobenzene 98.9 67.0-138 01/30/2021 19:23 WG1613926	Total Xylenes	U		0.000974	0.00719	1	01/30/2021 19:23	<u>WG1613926</u>
	(S) Toluene-d8	103			75.0-131		01/30/2021 19:23	WG1613926
(S) 1,2-Dichloroethane-d4 95.4 70.0-130 01/30/2021 19:23 WG1613926	(S) 4-Bromofluorobenzene	98.9			67.0-138		01/30/2021 19:23	<u>WG1613926</u>
	(S) 1,2-Dichloroethane-d4	95.4			70.0-130		01/30/2021 19:23	WG1613926

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.70	4.21	1	02/01/2021 15:03	WG1614200
C28-C40 Oil Range	1.30	J	0.289	4.21	1	02/01/2021 15:03	WG1614200
(S) o-Terphenyl	76.5			18.0-148		02/01/2021 15:03	WG1614200

SDG: L1311652

DATE/TIME: 02/09/21 09:24

# Received by 000: 5/13/2021 9:24:58 PM Collected date/time: 01/18/21 16:00

#### SAMPLE RESULTS - 08 L1311652

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## Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	 Ср
Analyte	%			date / time		2
Total Solids	90.5		1	02/04/2021 09:59	WG1615134	Tc

#### Wet Chemistry by Method 300.0

Wet Chemistry	v by Method 300	0.0						<sup>3</sup> Ss
	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg	mg/kg		date / time		$^{4}$ Cn
Chloride	U		10.2	22.1	1	02/05/2021 03:22	WG1615167	CII

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	quanner	mg/kg	mg/kg	Dilution	date / time	Baten	6 C
TPH (GC/FID) Low Fraction	U		0.0240	0.110	1	01/31/2021 22:16	WG1613977	
(S) a,a,a-Trifluorotoluene(FID)	90.1			77.0-120		01/31/2021 22:16	WG1613977	<sup>7</sup> G

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

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000565	0.00121	1	01/30/2021 19:42	<u>WG1613926</u>
Toluene	U		0.00157	0.00605	1	01/30/2021 19:42	<u>WG1613926</u>
Ethylbenzene	U		0.000891	0.00302	1	01/30/2021 19:42	WG1613926
Total Xylenes	U		0.00106	0.00786	1	01/30/2021 19:42	<u>WG1613926</u>
(S) Toluene-d8	102			75.0-131		01/30/2021 19:42	WG1613926
(S) 4-Bromofluorobenzene	97.8			67.0-138		01/30/2021 19:42	<u>WG1613926</u>
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		01/30/2021 19:42	WG1613926

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.78	4.42	1	02/01/2021 15:17	WG1614200
C28-C40 Oil Range	0.684	J	0.303	4.42	1	02/01/2021 15:17	WG1614200
(S) o-Terphenyl	71.3			18.0-148		02/01/2021 15:17	WG1614200

SDG: L1311652

DATE/TIME: 02/09/21 09:24

## Regeirechy 2024 5/13/2021 9:24:58 PM

Total Solids by Method 2540 G-2011

#### QUALITY CONTROL SUMMARY L1311652-01,02,03,04,05,06,07,08

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#### Method Blank (MB)

Method Blank	Method Blank (MB)									
(MB) R3619668-1 C	IB) R3619668-1 02/04/21 09:59									
	MB Result	MB Qualifier	MB MDL	MB RDL		_				
Analyte	%		%	%		Гс				
Total Solids	0.00100									
					<sup>3</sup> Ss	s				

#### L1311652-01 Original Sample (OS) • Duplicate (DUP)

L1311652-01 Origin	L1311652-01 Original Sample (OS) • Duplicate (DUP)										
(OS) L1311652-01 02/04	/21 09:59 • (DU	P) R3619668-3	02/04/21	09:59							
	Original Resu	It DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits					
Analyte	%	%		%		%					
Total Solids	93.6	92.7	1	0.891		10					

## Laboratory Control Sample (LCS)

(LCS) R3619668-2 02/	/04/21 09:59				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

DATE/TIME: 02/09/21 09:24

PAGE: 14 of 24

## Reserved by 9 (2075/13/2021 9:24:58 PM

Wet Chemistry by Method 300.0

#### QUALITY CONTROL SUMMARY L1311652-01,02,03,04,05,06,07,08

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#### Method Blank (MB)

(MB) R3619727-1 02	2/05/21 01:00			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0

#### L1311652-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1311652-02 02/05/2	21 01:56 • (DUP)	R3619727-5 (	02/05/210	)2:06		
	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	U	U	1	0.000		20

### L1312186-10 Original Sample (OS) • Duplicate (DUP)

L1312186-10 O	_1312186-10 Original Sample (OS) • Duplicate (DUP)								
(OS) L1312186-10 0	2/05/21 05:26 • (DUP)	R3619727-6	02/05/21	05:35					
	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits			
Analyte	mg/kg	mg/kg		%		%			
Chloride	U	U	1	0.000		20			

#### Laboratory Control Sample (LCS)

(LCS) R3619727-2 02/05/	/21 01:09				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	196	97.8	90.0-110	

#### L1311652-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311652-01 02/05/2	1 01:28 • (MS) R	3619727-3 02	/05/21 01:37 • (1	VISD) R361972	7-4 02/05/21 (	)1:47						
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	534	U	509	507	95.3	95.0	1	80.0-120			0.312	20

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	ConocoPhillips - Tetra Tech

PROJECT: 212-MD-02305

SDG: L1311652

DATE/TIME: 02/09/21 09:24

PAGE: 15 of 24

## **Керсіна Срудар. 75/13/2021 9:24:58 РМ**

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

#### QUALITY CONTROL SUMMARY L1311652-01,02,03,04,05,06,07,08

#### Method Blank (MB)

	)				$^{1}$ Cn
(MB) R3618053-2 01/31/2	21 11:39				Ср
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/kg		mg/kg	mg/kg	Tc
TPH (GC/FID) Low Fraction	U		0.0217	0.100	
(S) a,a,a-Trifluorotoluene(FID)	95.4			77.0-120	<sup>³</sup> Ss

## Laboratory Control Sample (LCS)

(LCS) R3618053-1 01/31/2	CS) R3618053-1 01/31/21 10:58							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier			
Analyte	mg/kg	mg/kg	%	%				
TPH (GC/FID) Low Fraction	5.50	5.08	92.4	72.0-127				
(S) a.a.a-Trifluorotoluene(FID)			102	77.0-120				

 <sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
<sup>9</sup> Sc

⁺Cn

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SDG: L1311652

DATE/TIME: 02/09/21 09:24

PAGE: 16 of 24

## QUALITY CONTROL SUMMARY

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Cn

Sr

Qc

### Method Blank (MB)

(MB) R3617853-3 01/30/2	B) R3617853-3 01/30/21 12:58						
	MB Result	MB Qualifier	MB MDL	MB RDL			
Analyte	mg/kg		mg/kg	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	105			75.0-131			
(S) 4-Bromofluorobenzene	96.6			67.0-138			
(S) 1,2-Dichloroethane-d4	84.6			70.0-130			

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3617853-1 01/30/21 11:42 • (LCSD) R3617853-2 01/30/21 12:01								7				
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits		΄GΙ
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%		
Benzene	0.125	0.137	0.135	110	108	70.0-123			1.47	20		8
Ethylbenzene	0.125	0.141	0.144	113	115	74.0-126			2.11	20		A
Toluene	0.125	0.136	0.133	109	106	75.0-121			2.23	20		9
Xylenes, Total	0.375	0.425	0.431	113	115	72.0-127			1.40	20		Sc
(S) Toluene-d8				98.1	98.4	75.0-131						
(S) 4-Bromofluorobenzene				100	108	67.0-138						
(S) 1,2-Dichloroethane-d4				98.5	98.3	70.0-130						

SDG: L1311652 DATE/TIME: 02/09/21 09:24

PAGE: 17 of 24 Semi-Volatile Organic Compounds (GC) by Method 8015

#### QUALITY CONTROL SUMMARY L1311652-01,02,03,04,05,06,07,08

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#### Method Blank (MB)

	10)				
(MB) R3618035-1 02/01	1/21 04:54				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/kg		mg/kg	mg/kg	
C10-C28 Diesel Range	U		1.61	4.00	
C28-C40 Oil Range	U		0.274	4.00	
(S) o-Terphenyl	67.4			18.0-148	

#### Laboratory Control Sample (LCS)

(LCS) R3618035-2 02/0	1/21 05:20				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
C10-C28 Diesel Range	50.0	46.5	93.0	50.0-150	
(S) o-Terphenyl			61.1	18.0-148	

#### L1311641-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311641-01 02/01/21 1	DS) L1311641-01 02/01/21 10:56 • (MS) R3618035-3 02/01/21 11:09 • (MSD) R3618035-4 02/01/21 11:22											
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
C10-C28 Diesel Range	50.6	9.02	53.5	50.3	87.9	81.6	1	50.0-150			6.17	20
(S) o-Terphenyl					50.0	46.2		18.0-148				

DATE/TIME: 02/09/21 09:24

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#### 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

Appreviations and	
(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

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The identification of the analyte is acceptable; the reported value is an estimate.

PROJECT: 212-MD-02305

SDG: L1311652 DATE/TIME: 02/09/21 09:24

PAGE: 19 of 24

## Received by OCD: 5/13/2021 9:24:58 PM CCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE. \* 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.

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Alaska	17-026	Nevada	TN000032021-1
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California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	Al30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
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Texas	T104704328-20-18	_	

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

Released to Imaging: 8/29/2021 9:47:52 AM ConocoPhillips - Tetra Tech

PROJECT: 212-MD-02305

SDG: L1311652

DATE/TIME: 02/09/21 09:24

Τс Ss Cn Sr Qc Gl AI Sc

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Analysis Request of Chain of Custody Record

Page : 1 of 3

T	Tetra Tech, Inc.					Tel (4	432)	ixas 79 682-455 682-39	9			1	わ	090	101		(			L	.13	11	65	2	
lient Name:	Conoco Phillips	Site Manage	r.	Chri	stian l	Llull								10						QUI			- >		
roject Name:	VGEU 02-20 EAST	Contact Info	h.			ristian.l 12) 33		tetrated	h com		1	1	11		rcle	e or	SI	bec	my 	Met	ino.	d N/	0.)		
roject Location: county, state)	Lea County, New Mexico	Project #:		212	C-MD	-02305	5				1														
voice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 797	21									1	6										list)			
eceiving Laboratory:	Pace Analytical	Sampler Sig	nature:	142	John '	Thursto	on		i M		]	O - MRO)		Se Hg								Itached			
comments: COPTE	TRA Acctnum										82608	DRO - ORO -		a Cd Cr Pb Se Hg			4	8270C/625			str	y (see a			
Partie Partie	and the second	SAMP	LING	M	ATRIX	Contraction of the local sectors of the local secto	SER	VATIVE		(N/N)	BTEX	GRO - DI		Ag As Ba C Ag As Ba		atles	C/MS Vol. 82608 / 624	/ol. 8270	608		T	Chemist	alance		
LAB #	SAMPLE IDENTIFICATION	YEAR: 2021	and the second se	-					AINE	ED (Y	3021B	1005 (	8270C	als tals	laties	Ini Vol	/ol. 82		808276	bestos)	300.0 Suif	Water	SR 5		
LAB USE )		DATE	TIME	WATER	SOIL	HCL	HNO3	NONE	# CONTAINERS	FILTERED	BTEX BC	TPH 801	PAH 821	Total Met	TOLP VO	RCI RCI	GC/MS V		PCB's 8	PLM (Ast	Chloride	General	Anion/Ca TPH 801		ногр
Sector 3	BH-1 (2-3')	1/18/2021	14:00		x		x		1	N	x	X									x				10
	BH-1 (4-5')	1/18/2021	14:05		х		x	6	1	N	x	X									x				-07
	BH-1 (6-7')	1/18/2021	14:10		x		X		1	N	X	X									X		1		< 03
a star and a	BH-1 (9-10')	1/18/2021	14:15		х		_ X		1	N	X	X									X				-0
Wards and	BH-1 (15')	1/18/2021	14:20		Х		X	c l	1	N	Х	X									x				
	BH-1 (20')	1/18/2021	14:25		Х		×	c l	1	Ν	X	X		11					34		X	314			-01
and the second	BH-2 (0-1')	1/18/2021	14:30		х		X		1	N	X	X	-								x				-0
	BH-2 (2-3')	1/18/2021	14:35		X		>		1	N	X	X							_		X				-0
and the second	BH-2 (4-5)	1/18/2021	14:40		х		>		1	N	X	X							_		X		an C		0
	BH-2 (6-7')	1/18/2021	14:45		X		>		1	N	X	X									X				X
Relinquished by:	Date: Time: 1/20/21 1500	Received by				Dat	e:	Time:				LAE	B US			x S		lard							
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and the state of the state		ORIGIN	AL COPY			pa					(Cir	cle) I	HAND	DELIN	/EREI	o FE	DEX	JUP	s	Trackir	ng #:		and the second s		and the second

Analysis Request of Chain of Custody Record

Page: 2 of 3

æ	Tetra Tech, Inc.					the second second second	d, Te 32)		9701 559	100											4	31.	16 . 90 4	52		
Client Name:	Conoco Phillips	Site Manager		Chris	stian	Liuli														EQU			-			]
Project Name:	VGEU 02-20 EAST	Contact Info:	- <b>4</b>			ristian.l i12) 338			ech.co	m	1		(		rcle				ify	M	eth	od I	No.	) 	1	
Project Location: (county, state)	Lea County, New Mexico	Project #:		2120	C-MD	-02305		19. 2 1. 1. 1.																		
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 7970	n			арана 112 <sub>78</sub> -		er en la Frank					G											d list)			
Receiving Laboratory:	Pace Analytical	Sampler Sig	nature:	ar i Tria	John	Thursto	'n					ORO - MROI		Se Hg	Se H								ttached			
Comments: COPTET	TRA Acctnum						-				32608	C35) DRO - OR(		Cd Cr Pb Se Hg	Cd Cr Pb			4	C/625				y (see a			
		SAMP	LING	MA	TRIX			VATIN		Î	BTEX 8	(Ext to C3		As Ba C	As Ba (	tilas		82608 / 624	Vol. 8270C	608		The The	Chemistr	lance		
LAB # (LAB USE )	SAMPLE IDENTIFICATION	YEAR: 2021 DATE	TIME	WATER	SOIL	ICL	CE	NONE	CONTAINEDS	FILTERED (Y/N)	6 80218	PH TX1005 (E	8270C	otal Metals Ag	CLP Metals Ag As Ba	TCLP Volatiles	sci	SCIMS Vol. 82	Semi.	ACB's 8082/6	PLM (Asbestos)	Chloride 300.0	Chloride Sulla	Anion/Cation Ba	d ion	IOLU
	BH-2 (9-10')	1/18/2021	14:50		X		X				X	,	(	F		Ť	-	Ŭ				X	T	T		x
2	BH-3 (0-1')	1/18/2021	14:55	$\mathbf{T}$	x		X			r N	X	)	<				T	1.0				x	1		·	-13
Sector Contractor	BH-3 (2-3')	1/18/2021	15:00		x		X			I N	X	;	<									X				1-1
	BH-3 (4-5')	1/18/2021	15:05		x		X			I N	X	;	<									x				4
States and set	BH-3 (6-7')	1/18/2021	15:10		x		X			I N	x	;	×									X				x -
	BH-3 (9-10')	1/18/2021	15:15		x		)			1 N	X	1	x									X				× -
A WAR	BH-4 (0-1')	1/18/2021	15:20		x		)	<		1 N	X		X									X				-0
	BH-4 (2-3')	1/18/2021	15:25		x		)	(		1 N	X		x									X				1
	BH-4 (4-5")	1/18/2021	15:30		x		)			1 N	X		x									X				T
	BH-4 (6-7*)	1/18/2021	15:35		x	4-1	)			1 N	X		×									X				X
Relinquished by	Date: Time: 1/20/21 1500	Received by				Dat	ie:	Tin	ю:			0.7.2	B U			C		tand								
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		ORIGIN	COPY	ET.	1		in the second			1 10	(Cir	rcle)	HAN	D D	ELIVE	REC	FI	EDE	Ju	PS	Trac	king #		and the second		

Received by OCD: 5/13/2021 9:24:58 PM

Page: 3 of 3

TE	Chain of Custody Record Tetra Tech, Inc.	<b>9</b> 2		91	M	idlan Tel (4	/all Si d, Te 432) € 432) 8	kas 7 182-4	970° 559	e 100 1						いた			-			870	L		116	52	
		Site Manager:	(	Christ	ian Ll	ull									Circ							EST		10)			and a second
ent Name:	Conoco Phillips		1	Email	: chris	stian.	Iluli@	tetrat	tech.	com		1	11					٦Þ.					1		1	11	
ject Name:	VGEU 02-20 EAST	Contact Info:		Phone	e: (51	2) 33	8-166	5/ 			100																
ject Location:	Lea County, New Mexico	Project #:		212C	-MD-(	0230	5	Celu, a F																			
voice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 7970		and a second										(OSIA		Hg								1	thed list)			
		Sampler Sign	nature:	J	ohn T	hurs	ton	12					ORO - MRO)		Pb Se Hg						1			attac			E.
ceiving Laboratory							100			рак. 1. же		32608	12		Cd Cr F				4 A	1007			TDS	try (see			1
omments: COPT	ETRA Acctnum	SAMP	LING	MA	TRIX	PR	ESER			ERS	(NI)	Ê	GRO -		ais Ag As Ba Cd Cr Pb S tais An As Ba Cd Cr Pb		olatiles		82608 / 624	608		(9)	0 utfate TC	r Chemist	Balance		
LAB #	SAMPLE IDENTIFICATION	YEAR: 2021 DATE	TIME	WATER	OL	tcL	4NO <sub>3</sub>	NONE		# CONTAINERS	FILTERED (Y/N)	BTEX 80218	TPH 8015M (	PAH 8270C	Total Metals A		TCLP Semi V		Vol.	GC/MS Semi. PCB's 8082 /	NORM .		Chloride 300. Chloride St	General Wate	Anion/Cation TPH 8015R		НОГО
( LAB USE )	AND MARK	1/18/2021	15:35		x	-	;	(	F	1	N	X	X										x				׬
ALCON ALCON	BH-4 (9-10')	1/18/2021	15:40	Ħ	x			X		1	N	x	×			- 3	19						x		-		
Sugar the Elle	BH-5 (0-1')	1/18/2021	15:45		x			×		1	Ν	X	×										x				1
Frankers Mr.	BH-5 (2-3') BH-5 (4-5')	1/18/2021	15:50		x			×		1	N	х	×									++	X				14
	BH-5 (6-7)	1/18/2021	15:55		x			x		1	N	Х	×	-			1	Ц		1		$\square$	X				X
Constant of the	BH-5 (9-10')	1/18/2021	16:00		x	1		×		1	N	X	>		$\square$	+	+	$\square$		_	+		X	+			X
								_	1							+	+			-	+	+	+	-			_
		4 45 14				-	11	_	-			-		+	$\square$		+	+		+	-	$\left  \right $	+	-	$\square$	-	-
	The second s				$\square$	+	$\square$	+	-		-	+	-	+	H	+	-	-		+	+	+	+	+	++	+	-
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Relinquished by:	Date: Time:	Received	by:	1		1	Date:		Time	: 90.	S			ない			C	] sp	xecial	Repo	xt Lin	nits or	TRRP	Repo	rt		
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L		1	/			/												L	(+	0	4	14	r l	MA	4	1	

R1/R2

# L1308904 \*COPTETRA\* goes 00H on Monday, 2/1 - 01-145

Please log all hold samples for V8260BTEX, GRO, DRORLA, CHLORIDE-300, TS. Log as R5 due 2/5. Refer to 01-145 for hold samples.

Adjust RUSH multiplier for V8260BTEX, GRO to 2x for analysis hold time expiring on Monday, 2/1. Adjust RUSH multiplier for DRORLA to 1.75x for extraction hold time expiring on Monday, 2/1.

Thanks, Chris

Xo 1911 Released to Imaging: 6/29/2021 9:47:52 AM

From: Dickerson, Ryan <Ryan.Dickerson@tetratech.com> Sent: Friday, January 29, 2021 12:28 PM To: Chris McCord <Chris.McCord@pacelabs.com> Cc: Llull, Christian <Christian.Llull@tetratech.com> Subject: L1308904 - Run all "HOLD" samples

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Can you run the samples from L1308904 that were previously placed on hold? There should be 8 of them. Chris,

Thanks,

Direct +1 (512) 338-2889 | Main +1 (512) 338-1667 | Cell +1 (512) 217-7254 | ryan.dickerson@tetratech.com<mailto:ryan.dickerson@tetratech.com> Ryan Dickerson | Senior Staff Geologist

Tetra Tech | Leading with Science(r) | OGA

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

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P Please consider the environment before printing this email

Time estimate: oh

Time spent: oh

Members

Christopher McCord (responsible)

.

# APPENDIX E Soil Boring Logs

212	C-M	1D-0	2305	T	₽Ţ	ETR	A TEC	сн				LOG OF BORING BH-1	Page 1 of 1
Proje	ct N	lame	e: VG	EU 02-2	20 Ea	ast F	lowlii	ne R	eleas	se			
3orel	nole	Loc	ation:	GPS: 32.	79617	71, -10	03.487	380				Surface Elevation: 3975 ft	
Borel	nole	Nur	mber:	BH-1							Boreho Diame	ble B Date Started: 1/18/2021 Date Finished:	1/18/2021
			LD pm)	pm)	ERY (%)	ENT (%)	f)		DEX	(9		WATER LEVEL OBSERVATIONS While Drilling <u>V</u> Dry ft Upon Completion of Drilling <u>V</u> Dry Remarks:	/_ft
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	FIGUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG		REMARKS
<u> </u>			ExStik	PID		~		LL	PI	~		Previously excavated to approximately 2' bgs.	
_												- CALICHE: Light tan, very dense, cemented, with	
_	$\left< \right>$	$\left  \right $	2810	12								occasional limestone.	I-1 (2-3')
5	$\left< \right>$	$\mathbb{N}$	37	1							<u></u>	- 5 BH -ML- SILT: Light tan, very dense, cemented, dry.	I-1 (4-5')
_	$\left< \right>$	A	25	1								B+	I-1 (6-7')
	$\left< \right>$	Å	42	1.9								B+	H-1 (9-10')
_	$\left< \right>$	$\square$	1									Becoming brittle at 11' bgs	
_  15	$\left< \right>$		24	0.9									1 4 (4 5')
	$\left< \right>$	$\left  \right $	24	0.3								-SM- SILTY SAND: Light reddish brown, medium dense, dry.	I-1 (15')
_	$\langle \rangle$	$\mathbb{R}$	1										
	$\langle \langle$	$\left  \right\rangle$	20	0.7								 20 BH	I-1 (20')
												Bottom of borehole at 20.0 feet.	· · (== /
Samp Type:	oler s:		Split Spoon Shelby	<b>A</b>		e Line Shear		)pera ypes	tion : Muc Rota	d ary		Hand Auger Notes: Air Rotary Air Rotary Surface elevations are estimated from Google Earth of Surface	above.
			Bulk Sampl M Grab Sampl	• <b>ل</b>	Califor est P					ntinuou ht Aug sh	er		Jala.

	Logger:	John Thurston	Drilling Equipment: Air Rotary	Driller:	Scarborough Drilling
Rei	VGEU 02-20 leased to	EAST.GPJ`4-8-21`T AUSTIN GEOTEC Imaging: 6/29/2021 9:47:5	2 AM ELL3 ` 2015 TT TEMPLATE DECEMB	ER WELL.	GDT '`

#### Re

Borehole Location:       GPS: 32.796421, -103.487760       Surface Elevation:       3973 ft         Borehole Number:       BH-2       Borehole Diameter (in.):       0 bate Started:       1/18/2021       Date Finished:       1/18/202         While Drilling       Water Level.       OBSERVATIONS       Water Level.       OBSERVATIONS       Y       Dry. ft         Understand       (id.)       (id.)<	212C-MD-02305	/13/2021 9:24:58 PM TETRA TECH	LOG OF BORING BH-2	Page 151 Page 1 of 1
Borehole Number: BH-2 Borehole Number: BH-2 Borehole Diameter (in.): 8 Date Started: 1/18/2021 Date Finished: 1/18/202 WATER LEVEL OBSERVATIONS WATER LEVEL OBSERVATIONS WATER LEVEL OBSERVATIONS While Drilling  ☐ Dry ft Upon Completion of Drilling  ☐ Dry ft Remarks: MATERIAL DESCRIPTION EXSUE PID S 5 CALICHE: Light tan, very dense, cemented, with 	Project Name: VC	GEU 02-20 East Flowline Release		
Image: How Handson of the second se	Borehole Location:	GPS: 32.796421, -103.487760	Surface Elevation: 3973 ft	
Image: With the prime withe prime withe prime with the prime with the prime with	Borehole Number:	BH-2 Boreho Diame	ole Date Started: 1/18/2021 Date Finis	hed: 1/18/2021
-       -       -       -       -       -       -       -       BH-2 (0-1')         -       -       -       -       -       -       -       -       BH-2 (2-3')         -       -       -       -       -       -       -       -       -       BH-2 (2-3')         -       -       -       -       -       -       -       -       -       -       -       BH-2 (2-3')         -	TYPE E FIELD NG (ppm)	3 (ppm) DVERY (%) NTENT (%) (pcf) T 1NDEX	WATER LEVEL OBSERVATIONS         While Drilling <u>⊥</u> Dry_ft Upon Completion of Drilling <u>⊥</u>	<u>Dry</u> ft
95       5       BH-2 (0-1')         129       3       3         94       5       -         5       -       -         52       1       -         52       1       -         6       -       -         6       -       -         7       -       -         8H-2 (2-3')       -         94       5       -         94       5       -         94       5       -         8H-2 (4-5')       -         94       5       -         94       5       -         94       5       -         94       5       -         94       5       -         94       5       -         94       5       -         94       5       -         94       5       -         94       5       -         95       1       -         94       -       -         95       52       1       -         95       -       -       -         9		A VOC FIEL B VOC FIEL SCREEN MOISTURE MOISTURE DRY DENSII T LIQUID L T LIQUID L T ANNUS NO. 3 GRAPHIC LO	MATERIAL DESCRIPTION	E REMARKS
-       -       -       -       -       -       -       5       BH-2 (4-5')         -       -       -       -       -       -       -       5       BH-2 (4-5')         -       -       -       -       -       -       -       -       -         -       -       -       -       -       -       -       -       -         -       -       -       -       -       -       -       -       -       -         -       -       -       -       -       -       -       -       -       -       -       -         -		5 3		BH-2 (2-3')
		5	occasional limestone.	
Bottom of borehole at 10.0 feet.		0.7		

Sampler Types:	Split Spoon	Acetate Liner	Operation Types:	Hand Auger	Notes:
	Shelby	Vane Shear	Mud Rotary	Air Rotary	Analytical samples are shown in the remarks column above. Surface elevations are estimated from Google Earth data.
	Bulk Sample	California	Continuous Flight Auger	Direct Push	•
	Grab Sample	Test Pit	Wash	Core Barrel	
Logger:	John Thurston		Drilling Equipment:	Air Rotary	Driller: Scarborough Drilling

.

#### Received by OCD: 5/13/2

<u>13/2021 9:24:58 PM</u>	- i			Page 152 of
TETRA TECH	L	OG OF BORING BH-3		Page 1 of 1
EU 02-20 East Flowline Release				
GPS: 32.796421, -103.487760	Surface Elevation:	3976 ft		
BH-3 Bore Dian	ehole meter (in.): 8	Date Started: 1/18/2021	Date Finished:	1/18/2021
(%)		VATER LEVEL OBSERVATIO		Dry_ft

					(%	(%)						While Drilling	ı <u>⊻ D</u> ı	ry_ft	Upon	Completic	on of Drilli	ing -	Ţ	Dry_ft
			(md	(mq	ERY (	ENT	(J:		IDEX	(9		Remarks:								
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	UNC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)		PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	N	IATERIAL	. DES	SCRIP	TION			DEPTH (ft)	REMARKS
	33	M	91	3								-SM- SILT	TY SAND:	Browr	n, medi	ium den:	se, dry.		-	BH-3 (0-1')
-		$\left  \right\rangle$	125	5							a	CALICI occasiona	HE: Light t I limestone	tan, ve e.	ery den	se, cem	ented, w	vith	<u>2</u> -	BH-3 (2-3')
5	$\left\langle \right\rangle$	Å	73	5							0 0	-							-	BH-3 (4-5')
-	$\left\{ \right\}$	X	52	2								- <b>ML-</b> SIL1 _ dry.	: Light gre	ey/tan	, very c	lense, ce	ementec	1, l	<u>6</u> 7	BH-3 (6-7')
_	\$\$	$\mathbb{H}$											: Light tar	n, very	y dense	, cemen	ted, dry	y.	-	
_ 10	$\langle \rangle$	$\bigwedge$	49	2									Bottom of	fborel	hole at	10 0 fee	<u>et</u>		- 10	BH-3 (9-10')
Sam Type	pler s:	6	Split Spoon Shelby Bulk Sample M Grab Sample				r T		Mud Rota Con Flig	tinuou ht Auge sh	s er	Hand Auger Air Rotary Direct Push Core Barrel		l samp elevatio	oles are ons are	e shown e estimat	in the re ed from	emarks o Google	olur Ear	nn above. th data.
Logo	ler:	Joh	n Thurston				Г	Drilling	1 Fau	ipmen	t <sup>.</sup> Air	Rotary	Driller Sca	arboroud	h Drilling					

VGEU 02-20 EAST.GRJ `4-8-21. TT-AUSTIN GEOTECH NOWELL3 `2015 TT TEMPLATE DECEMBER WELL.GDT '

Project Name: VGEU

Borehole Location:

Borehole Number:

#### Received by OCD: 5/1.

eived by O	CD: 5/1	<u>13/2021</u>	9:2	4:58	8 <b>P</b> M	[											<u>Page 153 o</u>
212C-MD-0	02305	T	Ŀ	ETR	ATEC	сн					LC	og of BC	RING B	H-4			Page 1 of 1
Project Name	e: VGI	EU 02-2	20 Ea	ast F	lowlin	ne R	eleas	е									
Borehole Loc	cation:	GPS: 32.	79642	21, -1(	03.487	760			Sur	face Elevatio	on:	3973 ft					
Borehole Nur	mber:	BH-4						Bo Dia	rehole ameter (i	in.): 8		Date Started:	1/18/202	1	Date Fir	nished:	1/18/2021
											W	ATER LEVE	EL OBSER	VATIO	NS		
			(%)	(%)					Wł	hile Drilling	$\underline{\nabla}$	Dry_ft U	Jpon Complet	ion of Dr	illing	<u>▼</u> D	<u>ry_</u> ft
붠	(ppm)	(mqq)	VERY (	NTENT	pcf)		INDEX	(%)	Re	marks:							
	_ = _		>		L 0												

	ш		(md	(mqc	ERY (	ENT.	if)		IDEX	(%)		Remarks:		
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY	MOISTURE CONTENT	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
ā	ō	ŝ	ExStik	PID	S	Σ		LL	ΡI	Σ	Ū			
_	$\sum_{i=1}^{n}$	$\mathbb{N}$	89	3								-SM- SILTY SAND: Brown, medium dense, dry.	2	BH-4 (0-1')
_	$\left\langle \right\rangle$		76	5							a <u>a</u>	CALICHE: Light tan, very dense, cemented, with occasional limestone.	_	BH-4 (2-3')
5	$\left.\right\rangle$	Å	81	5							a a		_	BH-4 (4-5')
_	$\left\langle \right\rangle \left\langle \right\rangle$	X	33	2								-ML- SILT: Light grey/tan, very dense, cemented, dry. -ML- SILT: Light tan, very dense, cemented, dry.	6 7	BH-4 (6-7')
-	$\left\langle \right\rangle$	$\left  \right $											_	
10	$\Delta M$	1	29	2								Bottom of borehole at 10.0 feet.	10	BH-4 (9-10')

Sampler Types:	Split Spoon Shelby Bulk Sample Grab Sample	Acetate Liner Vane Shear California Test Pit	Operation Types: Mud Rotary Continuous Flight Auger Wash Rotary	Air Rotary	Analytical samples are shown in the remarks column above. Surface elevations are estimated from Google Earth data.
Logger:	John Thurston		Drilling Equipment:	Air Rotary	Driller: Scarborough Drilling
VGEU 02-20	) FAST GP.1 ` 4-8-21	L'ALISTIN GEOTEO	H NOWELLS ` 2015 TT ]	EMPLATE DECEMBE	ER WELL GDT''

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<u>eived by OCD: 5/13/2021 9:24:58 PM</u>		<u>Page 154 of</u>
212C-MD-02305	LOG OF BORING BH-5	Page 1 of 1
Project Name: VGEU 02-20 East Flowline Release		
Borehole Location: GPS: 32.796421, -103.487760	Surface Elevation: 3974 ft	
Borehole Number: BH-5	Borehole Diameter (in.): 8 Date Started: 1/18/2021 Date Finished:	1/18/2021

Borehole Location:	GPS: 32.796421, -103.4		Surface Eleva	tion: 3974 ft		
Borehole Number: BH-5 Bo			orehole ameter (in.): 8	Date Started: 1/18/2021 Date Finished: 1/18/2021		1/18/2021
ELD Ppm)	ppm) ERY (%) TENT (%)	EX	While Drilling Remarks:	WATER LEVEL OBSERVATIC g ⊻ Dry_ft Upon Completion of D		<u>Dry</u> ft
DEPTH (ft) OPERATION TYPE SAMPLE CHLORIDE FIELD	Understand     Understand       Understand     Understand       SCREENING (ppm)       SAMPLE RECOVERY (%)       MOISTURE CONTENT (%)	DKY DENSITY (pcf)	M GRAPHIC LOG	IATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
68	1		<b>-SM-</b> SIL⊺	ΓΥ SAND: Brown, medium dense, dr	y2	BH-5 (0-1')
87	1		, <u> </u>	HE: Light tan, very dense, cemented I limestone.	, with	BH-5 (2-3')
5 57	2	a a			6	BH-5 (4-5')
49	2		dry.	<ul> <li>Γ: Light grey/tan, very dense, cement</li> <li>Γ: Light tan, very dense, cemented, c</li> </ul>	ted,	BH-5 (6-7')
	2			Bottom of borehole at 10.0 feet.	10	BH-5 (9-10')
Samplar Salit		Operation				
Sampler Types: Split Spoo Shell Sam Grab Sam	by Der California	Operation Types: Mud Rotary Filght Auger Wash Rotary	Hand Auger Hand Auger Air Rotary T Direct Push Core Barrel	Notes: Analytical samples are shown in the Surface elevations are estimated fro	remarks colu m Google Ea	mn above. th data.
Logger: John Thursto		Drilling Equipment:		Driller: Scarborough Drilling		
VGELL02-20 EAST GBL		CH NOWELL 3 ` 2015 TT	TEMPLATE DECEMBE			

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# APPENDIX F Photographic Documentation





TETRA TECH, INC. PROJECT NO.	DESCRIPTION	View of the southern portion of the VGEU 02-20 East flowline release area, looking southeast.	3
212C-MD-02305	SITE NAME	ConocoPhillips VGEU 02-20 East Release	9/02/2020



TRA TECH, INC.	DESCRIPTION	View of the VGEU 02-20 East flowline release area, looking northwest.	4
PROJECT NO. 212C-MD-02305	SITE NAME	ConocoPhillips VGEU 02-20 East Release	9/02/2020



TETRA TECH, INC. PROJECT NO.	DESCRIPTION	View of the northern portion of the VGEU 02-20 East flowline release area, looking west.	5
212C-MD-02305	SITE NAME	ConocoPhillips VGEU 02-20 East Release	9/02/2020

## APPENDIX G NMSLO Seed Mixture Details



United States Department of Agriculture

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

# Custom Soil Resource Report for Lea County, New Mexico

VGEU 02-20 East Flowline Release



# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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#### Custom Soil Resource Report

MAP	LEGEND	MAP INFORMATION	
Area of Interest (AOI) Area of Interest (AOI) Soils Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Special Point Features	<ul> <li>Spoil Area</li> <li>Stony Spot</li> <li>Very Stony Spot</li> </ul>	The soil surveys that comprise your AOI were mapped at 1:20,000. Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed	
image: bill of outlines         image: bill of outlines         image: bill of outlines         Blowout         image: bill of outlines         Borrow Pit         image: bill of outlines         Clay Spot         O         Closed Depression         Gravel Pit         image: bill outlines         Clay Spot         Landfill         image: bill outlines         image: bill outlines <t< td=""><td>Water FeaturesImage: Streams and CanalsTransportationImage: Streams and CanalsImage: Streams and</td><td>Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the</td></t<>	Water FeaturesImage: Streams and CanalsTransportationImage: Streams and CanalsImage: Streams and	Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the	
<ul> <li>Marsh or swamp</li> <li>Mine or Quarry</li> <li>Miscellaneous Water</li> <li>Perennial Water</li> <li>Rock Outcrop</li> <li>Saline Spot</li> </ul>	Aerial Photography	Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data a of the version date(s) listed below. Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 17, Jun 8, 2020	
<ul> <li>Sandy Spot</li> <li>Severely Eroded Spot</li> <li>Sinkhole</li> <li>Slide or Slip</li> <li>Sodic Spot</li> </ul>		Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor	

## **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0.1	100.0%
Totals for Area of Interest		0.1	100.0%

## **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

#### Lea County, New Mexico

#### KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

#### Map Unit Setting

National map unit symbol: 2tw46 Elevation: 2,500 to 4,800 feet Mean annual precipitation: 14 to 16 inches Mean annual air temperature: 57 to 63 degrees F Frost-free period: 180 to 220 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Kimbrough and similar soils:* 45 percent *Lea and similar soils:* 25 percent *Minor components:* 30 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Kimbrough**

#### Setting

Landform: Plains, playa rims Down-slope shape: Linear, convex Across-slope shape: Linear, concave Parent material: Loamy eolian deposits derived from sedimentary rock

#### **Typical profile**

A - 0 to 3 inches: gravelly loam Bw - 3 to 10 inches: loam Bkkm1 - 10 to 16 inches: cemented material Bkkm2 - 16 to 80 inches: cemented material

#### **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 1.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7s Hydrologic Soil Group: D Ecological site: R077DY049TX - Very Shallow 12-17" PZ Hydric soil rating: No

#### **Description of Lea**

#### Setting

Landform: Plains Down-slope shape: Convex Across-slope shape: Linear Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

#### **Typical profile**

A - 0 to 10 inches: loam Bk - 10 to 18 inches: loam Bkk - 18 to 26 inches: gravelly fine sandy loam Bkkm - 26 to 80 inches: cemented material

#### **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 90 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water capacity: Very low (about 2.9 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7s Hydrologic Soil Group: D Ecological site: R077DY047TX - Sandy Loam 12-17" PZ Hydric soil rating: No

#### **Minor Components**

#### Douro

Percent of map unit: 12 percent Landform: Plains Down-slope shape: Linear Across-slope shape: Linear Ecological site: R077DY047TX - Sandy Loam 12-17" PZ Other vegetative classification: Unnamed (G077DH000TX) Hydric soil rating: No

#### Kenhill

Percent of map unit: 12 percent Landform: Plains Down-slope shape: Linear Across-slope shape: Linear Ecological site: R077DY038TX - Clay Loam 12-17" PZ Hydric soil rating: No

.

#### Custom Soil Resource Report

#### Spraberry

Percent of map unit: 6 percent Landform: Plains, playa rims Down-slope shape: Linear, convex Across-slope shape: Linear Ecological site: R077DY049TX - Very Shallow 12-17" PZ Other vegetative classification: Unnamed (G077DH000TX) Hydric soil rating: No

# SLO Seed Mix

## 1 REVEGETATION PLANS

The following Revegetation Plans were developed for revegetation of sites in southeastern New Mexico. To determine which revegetation plan is appropriate follow procedures in the section titled Determining the Revegetation Plan.

Revegetation Plans contain seed mixtures, as well as seed bed preparation and planting requirements. The detailed instructions for seedbed preparation and planting can be found in the section Revegetation Techniques.

REVEGTATION PLANS	CODE	SOIL TEXTURES
Clay	С	Clay, Silty Clay, Stony Silty Clay, Clay Loam, Silty Clay Loam (including saline and sodic Clay soils)
Loam	L	Silty Loam, Cobbly Silt Loam, Stony Silt Loam, Silt, Loam, Sandy, Clay Loam
Sandy Loam	SL	Very Fine Sandy Loam, Fine Sandy Loam, Cobbly Fine Sandy Loam, Sandy Loam, Cobbly Sandy Loam, Gravelly Fine Sandy Loam, Very Gravelly Fine Sand Loam, Stony Fine Sandy Loam, Stony Sandy Loam
Shallow	SH	Rocky Loam, Cobbly Loam
Course	CS	Gravelly Loam, very Gravelly Loam, Gravelly Sandy Loam, Very Gravelly Sandy Loam, Stony Loam, Stony Sandy Loam
Sandy	S	Loamy Fine Sand, Loam Sand, Very Gravelly Loamy Fine Sand
Blow Sand	BS	Fine Sand, Sand, Coarse Sand
Mountain Meadow	MM	Clay, Loam
Mountain Upland	MU	Clay Loam, Loam

Table 3 - Revegetation Plans, Codes, and Soil Types for Southeastern New Mexico



Version 1 - 200808

New Mexico State Land Office Southeastern New Mexico Revegetation Handbook

## **NMSLO Seed Mix**

## Sandy Loam (SL)

#### SANDY LOAM (SL) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX	
Grasses:				
Galleta grass	Viva, VNS, So.	2.5	F	
Little bluestem	Cimmaron, Pastura	2.5	F	
Blue grama	Hachita, Lovington	2.0	D	
Sideoats grama	Vaughn, El Reno	2.0	F	
Sand dropseed	VNS, Southern	1.0	S	
Forbs:				
Indian blanketflower	VNS, Southern	1.0	D	
Parry penstemon	VNS, Southern	1.0	D	
Blue flax	Appar	1.0	D	
Desert globemallow	VNS, Southern	1.0	D	
Shrubs:				
Fourwing saltbush	VNS, Southern	2.0	D	
Common winterfat	VNS, Southern	1.0	F	
Apache plume	VNS, Southern	0.75	F	
	Total PLS/acro	e 17.75		

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

• VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.

• Double above seed rates for broadcast or hydroseeding.

• If Parry penstemon is not available, substitute firecracker penstemon.

• If desert globemallow is not available, substitute scarlet globemallow or Nelson globemallow.

• If a species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.



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Oil Conservation Division

Incident ID	nRM2019933917
District RP	
Facility ID	
Application ID	

### **Remediation Plan**

**<u>Remediation Plan Checklist</u>**: 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

 $\boxtimes$  Estimated volume of material to be remediated

Page 5

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)

<b>Deferral Requests Only:</b> 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: Marvin Soriwei	Title: Program Manager, Risk Management & Remediation				
Signature:	Date: <u>5/12/2021</u>				
email: marvin.soriwei@conocophillips.com	Telephone: 8324862730				
OCD Only					
Received by: Chad Hensley	Date: 06/29/2021				
Approved X Approved with Attached Conditions of A	Approval Denied Deferral Approved				
Signature: Child Henry	Date: 06/29/2021				

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District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

sampling.

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

CONDITIONS

Operator:	OGRID:
CONOCOPHILLIPS COMPANY	217817
600 W. Illinois Avenue	Action Number:
Midland, TX 79701	28225
	Action Type:
	IC-1411 Release Corrective Action (C-141)

CONDITIONS		
	Created By	Condition
	chensley	Please collect confirmation samples representing no more than 200 square feet, unless Conoco chooses to provide a sampling plan for approval prior to conduction additional

CONDITIONS

Action 28225

Condition Date

6/29/2021

Page 172 of 172