SITE INFORMATION

Report Type: REVISED Work Plan nCH1903240708

General Site Information:						
Site:	VGEU 19-01 Flowline Release					
Company:	ConocoPhillips					
Section, Township and Range	Unit L	Sec. 32	T 17S	R 35E		
Lease Number:	Associated API No. 30-025-20846					
County:	Lea					
GPS:	32.7905655			-103.4863052		
Surface Owner:	State					
Mineral Owner:	N/A					
Directions:	Depart from Lovington (US Hwy 82/Main St.). Head west on US Hwy 82 for 7.15 miles. Turn left onto NM 238. Head south for 10.4 miles. Turn left onto Buckeye Rd. Head east for 1.17 miles. Turn right onto dirt road. Head south for 0.55 mile. Arrive at location. Site is on the right.					

Release Data:		
Date Released:	12/10/2018	
Type Release:	Produced Water	
Source of Contamination:	Flowline Leak	
Fluid Released:	45 bbls	
Fluids Recovered:	25 bbls	

Official Communication:			
Name:	Sam Widmer		Christian Llull
Company:	Conoco Phillips - RMR		Tetra Tech
Address:	935 N. Eldridge Pkwy.		8911 North Capital of Texas Hwy
			Building 2, Suite 2310
City:	Houston, Texas 77079		Austin, Texas
Phone number:	281-206-5298		(512) 338-2861
Fax:			
Email:	Sam.Widmer@conocophillips.com		christian.llull@tetratech.com

Site Characterization	
Shallowest Depth to Groundwater:	*102' below surface*
Impact to groundwater or surface water:	*No*
Extents within 300 feet of a watercourse:	*No*
Extents within 200 feet of lakebed, sinkhole, or playa lake:	*No*
Extents within 300 feet of an occupied structure:	*No*
Extents within 500 horizontal feet of a private water well:	*No*
Extents within 1000 feet of any water well or spring:	*No*
Extents within incorporated municipal well field:	*No*
Extents within 300 feet of a wetland:	*No*
Extents overlying a subsurface mine:	*No*
Karst Potential:	*Low*
Extents within a 100-year floodplain:	*No*
Impact to areas not on a production site:	*No*

Recommended Remedial Action Levels (RRALs)				
Benzene	***Total BTEX***	***TPH (GRO+DRO)***	***TPH (GRO+DRO+MRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*1,000*	*2,500 mg/kg*	*20,000 mg/kg*

TETRA TECH

August 19, 2021

District Supervisor
Oil Conservation Division, District 1
1625 N. French Dr.
Hobbs, NM 88240

Re: REVISED
Release Characterization and Remediation Work Plan
ConocoPhillips
VGEU 19-01 Flowline Release
Unit Letter L, Section 32, Township 17 South, Range 35 East
Lea County, New Mexico
1RP-5304
Incident ID: nCH1903240708

Dear Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips to assess a flowline release that occurred at the Vacuum Glorieta East Unit (VGEU) 19-01 well pad (API #30-025-20846), within Unit Letter L, Section 32, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The release site coordinates are 32.7905655°, -103.4863052°. The Site location is shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), a release occurred from the VGEU 19-01 flowline on December 10, 2018. Approximately 45 barrels (bbls) of produced water were released, of which approximately 25 bbls were recovered. The release extent was predominantly confined to the lease pad. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on December 13, 2018 and subsequently assigned the Site the Remediation Permit (RP) number 1RP-5304 and Incident Identification (ID) nCH1903240708.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances and the site is in a low karst potential area. According to the New Mexico Office of the State Engineers (NMOSE) database, there are three (3) water wells within ½ mile (800-meter) radius of the Site with an average depth to groundwater at 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

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levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

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

Constituent	Site RRALs
Chloride	20,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 mg/kg

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

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

INITIAL RESPONSE

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 February 2019. The release was predominantly confined to the caliche well pad, as shown on Figure 3. The visually impacted soils within the release area footprint were scraped to a depth of 6 inches. The initial release extent and initial response excavation extent are shown on Figure 3.

INITIAL SITE ASSESSMENT AND SAMPLING RESULTS

Post-initial response, COP personnel conducted an initial soil assessment of the release area in February 2019. Six (6) borings (SP-1 through SP-6) were installed to a total depth of 3 feet bgs to evaluate the vertical extents of the release. A total of 12 soil samples were collected from these 6 boring locations on February 28, 2019 (Figure 3). The samples were submitted to an analytical laboratory for TPH, BTEX and chloride analysis. A copy of the analytical laboratory report and chain-of-custody documentation are included in Appendix C.

The results of the assessment sampling event in February 2019 are summarized in Table 1. The sample locations are shown on Figure 3. The analytical results associated with boring location SP-6 (located on-pad) were above the RRAL for chloride at the 0-1' depth interval. Sample results from SP-4 were above the Site reclamation requirements for chloride and/or TPH down to the 3-foot depth interval. There were no Site RRAL exceedances for BTEX in the initial assessment analytical results.

ADDITIONAL SITE ASSESSMENT AND SAMPLING RESULTS

In order to more fully characterize and delineate the release area, Tetra Tech personnel conducted a subsurface investigation in September 2019. Nine (9) borings (BH-1 – BH-9) were installed using an air rotary drilling rig to various depths to evaluate the vertical and horizontal extents of the release. Selected samples were submitted to an analytical laboratory for TPH, BTEX, and chlorides. Copies of the analytical laboratory reports and chain-of custody documentation are included in Appendix C. Boring logs, included as Appendix D, present soil descriptions, sample depths and field screening data from the additional site assessment. Photographic documentation of site conditions at the time of assessment activities is included as Appendix E.

The results of the additional assessment in September 2019 are summarized in Table 2. The sample locations are shown in Figure 3. All analytical results were below the proposed RRALs for both TPH and BTEX. The analytical results associated with boring locations BH-2 and BH-4 were above the RRAL for chloride in the 0-1' interval and the 0-3' intervals, respectively. Chloride concentrations at boring locations BH-5, BH-6 and BH-7 are elevated in the 0-3' intervals and generally increase with depth. Further explanation on these results below. Analytical results associated with boring locations BH-1, BH-3 and BH-9 were below the RRALs for all constituents analyzed.

Borings BH-4, BH-5, BH-6 and BH-7 were drilled in locations outside the 1RP-5304 release footprint to attempt to provide horizontal delineation. Based on the release extent, field screening data, and the subsequent analytical results, it appears the elevated chloride concentrations in the surface and subsurface at BH-4, BH-5, BH-6 and BH-7 are due to a historical release, and unrelated to the current release (1RP-5304). Cursory review of available satellite imagery indicates the general area has historically been used for production, however, imagery is not available prior to 1996.

INITIAL REMEDIATION WORK PLAN

A Release Characterization Work Plan was prepared by Tetra Tech on behalf of COP and submitted to the NMOCD on January 13, 2020. The report described the assessment activities and results. The work plan was denied by Robert Hamlet of the NMOCD via email on Monday, June 29, 2020. The variance for composite samples of 500 square feet was approved. The reason for denial of the work plan was insufficient horizontal delineation of the release area footprint.

Reasons for denial included in the email include:

"• SP-4 and BH-4 appear to be in the pasture area. Please make sure these areas are delineated/remediated to 600 mg/kg for chlorides and 100 mg/kg for TPH.

• Additional horizontal delineation samples for chlorides <600 mg/kg will need to be established on the boundaries at BH-4, BH-6, BH-7. As the clarification states, "one foot sample suffices for immediate horizontal evaluation". Please make sure these boundary sample locations are delineated to <600 mg/kg for chlorides at the surface.."

ADDITIONAL SITE DELINEATION AND SAMPLING RESULTS

In order to meet the requirements of 19.15.29.11 NMAC and duly address the NMOCD reasoning for denial, Tetra Tech personnel conducted soil sampling on April 8, 2021 on behalf of ConocoPhillips. A total of seven (7) additional borings (BH-10 through BH-16) were installed using an air rotary drill rig. These borings were drilled to achieve horizontal and vertical delineation of the impacted pasture area north of the VGEU 19-01 well pad. Borings BH-13 and BH-14 were installed to capture the vertical extent of impact to the north. Borings BH-10 through BH-12, BH-15 and BH-16 were installed along the perimeter of impact to achieve horizontal delineation. The samples were submitted to an analytical laboratory for TPH, BTEX and chloride analysis. Copies of analytical reports and chain-of-custody documentation are included in Appendix C.

The results of the additional site delineation in April 2021 are summarized in Table 2. The sample locations are shown in Figure 3. Analytical results associated with BH-13 and BH-14 were above reclamation requirements for chloride (600 mg/kg) down to 3 feet bgs. The remainder of the analytical results from the April 2021 borings were below the reclamation requirements for all constituents analyzed.

REMEDIATION WORK PLAN

Based on the analytical results, ConocoPhillips proposes to further excavate on-pad soils an additional 1 foot near sample location SP-6, as depicted in Figure 4. Screening samples will be collected during the excavation process and compared to the proposed RRALs to determine if the remediation footprint for the site will be modified based on field conditions.

Additionally, the impacted material in the vicinity of SP-4 and BH-4 will be excavated to a depth of 4 feet bgs, and the impacted material in the vicinity of BH-13 and BH-14 will excavated to a depth of 4 feet bgs. Screening samples will be collected in these excavated areas and compared to reclamation requirements to ensure the efficacy of impacted soil removal.

Impacted soils will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum depth of 4 feet below surface or until a representative sample from the walls and bottom of the excavation is below the applicable RRALs. The off-pad area of the release extent that runs along the steel flowlines will be hand-dug to a depth of 4 feet or the maximum extent practicable.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation floor and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chloride. Once the sample results are received, the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is 1,040 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 5. Sixteen (16) confirmation floor samples and twenty-nine (29) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses an area of approximately 7,200 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 chlorides (USEPA Method 300.0).

SITE RECLAMATION AND RESTORATION PLAN

Based on the site characterization, the impacted surface area of the release on the production lease pad meets the remediation standards of Table I of 19.15.29.12 NMAC. Final remediation and reclamation of any impact within the lease pad area shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the Site is no longer being used for oil and gas operations. Therefore, reclamation of the soils located within the confines of the VGEU 19-01 well pad will be delayed until the abandonment of the VGEU 19-01 well and the full pad reclamation.

The backfilled areas located outside the VGEU 19-01 well pad boundary will be seeded in Spring 2022 (first favorable growing season) to aid in revegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Coarse (CS) 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.

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 F.

CONCLUSION

ConocoPhillips proposes to begin remediation activities at the Site within 120 days of the date of NMOCD approval of this submittal. 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. As noted,

on-pad reclamation and restoration will occur once the well is plugged and operations have ceased at this active well pad.

If you have any questions concerning the soil assessment 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. Sam Widmer, RMR - ConocoPhillips
Mr. Charles Beauvais, GPBU - ConocoPhillips

List of Attachments

Figures:

- Figure 1 – Site Overview Map
- Figure 2 – Site Topographic Map
- Figure 3 – Release Assessment Map
- Figure 4 – Proposed Remediation Extents
- Figure 5 – Alternative Confirmation Sample Plan

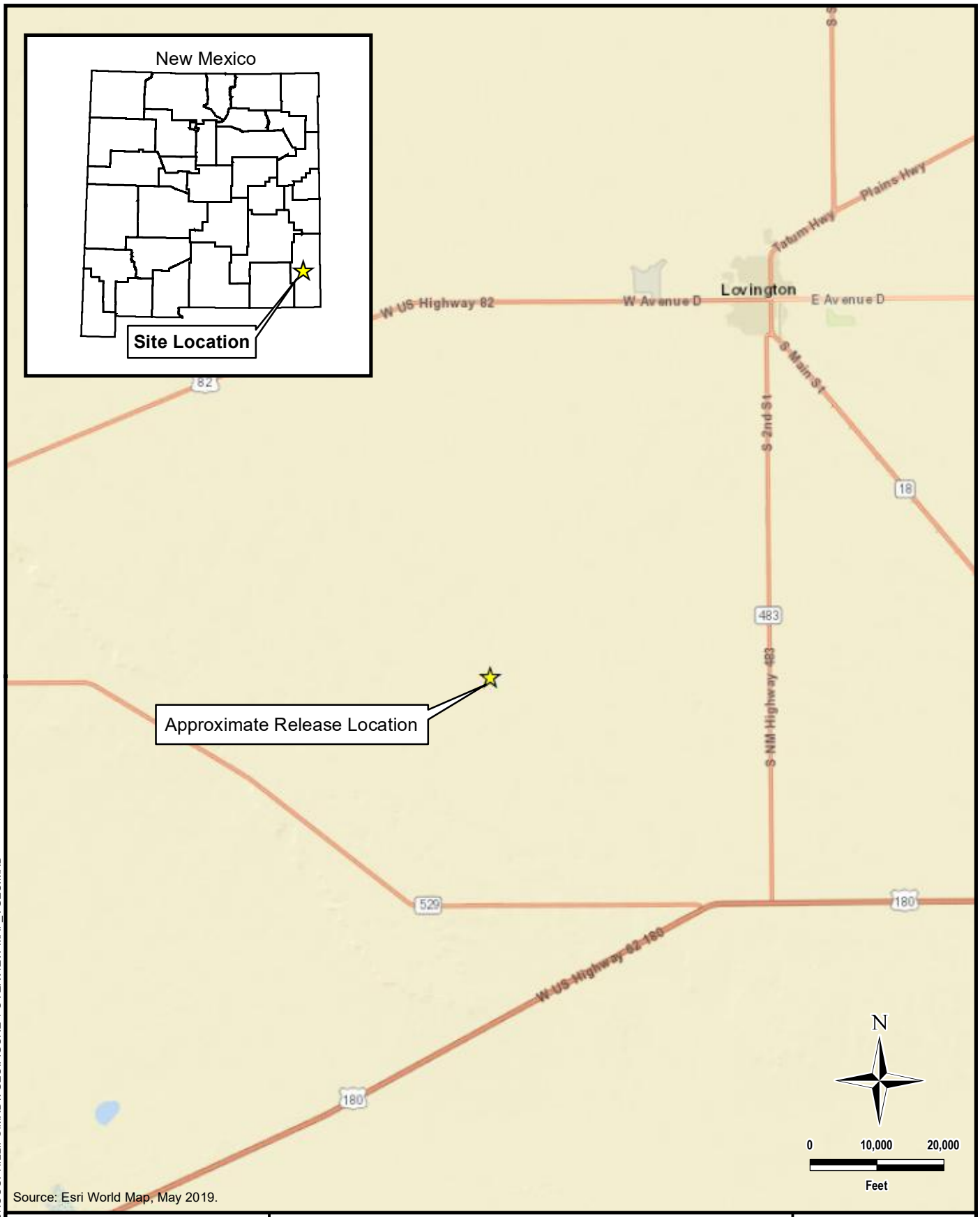
Tables:

- 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 – Laboratory Analytical Reports
- Appendix D – Soil Boring Logs
- Appendix E – Photographic Documentation
- Appendix F – NMSLO Seed Mixture Details

FIGURES



Source: Esri World Map, May 2019.

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\VGEU\FIGURE 1 OVERVIEW MAP_VGEU.MXD

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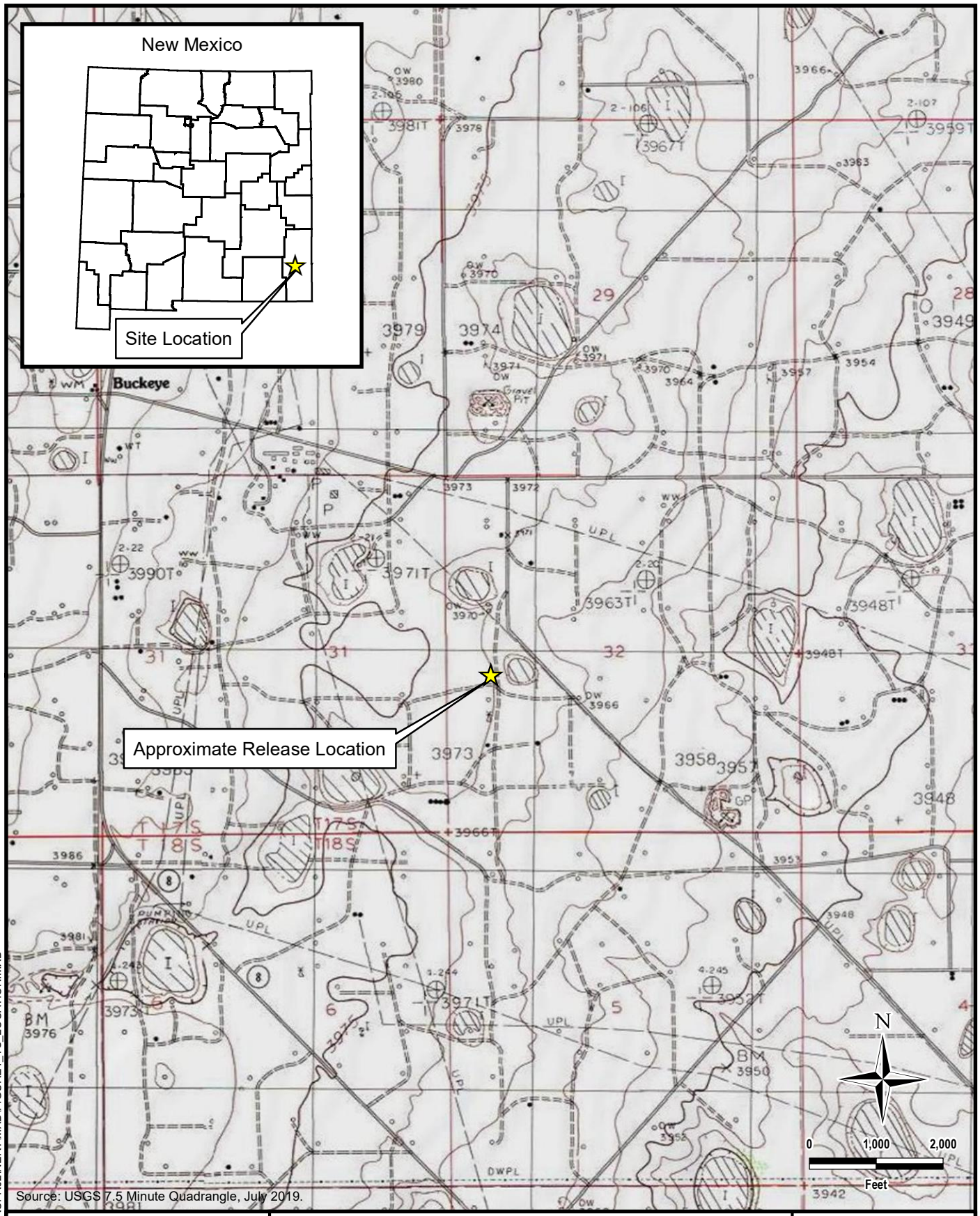
LEA COUNTY, NEW MEXICO

VGEU 19-01 FLOWLINE RELEASE
OVERVIEW MAP

PROJECT NO.:	212C-MD-01852
DATE:	JUNE 14, 2021
DESIGNED BY:	AAM

Figure No.
1



Source: USGS 7.5 Minute Quadrangle, July 2019.

\\TTS134FS1\SUP-GIS\ARCPRJ2\NERT\MXD\FIGURE1_TS_LOCATION.MXD

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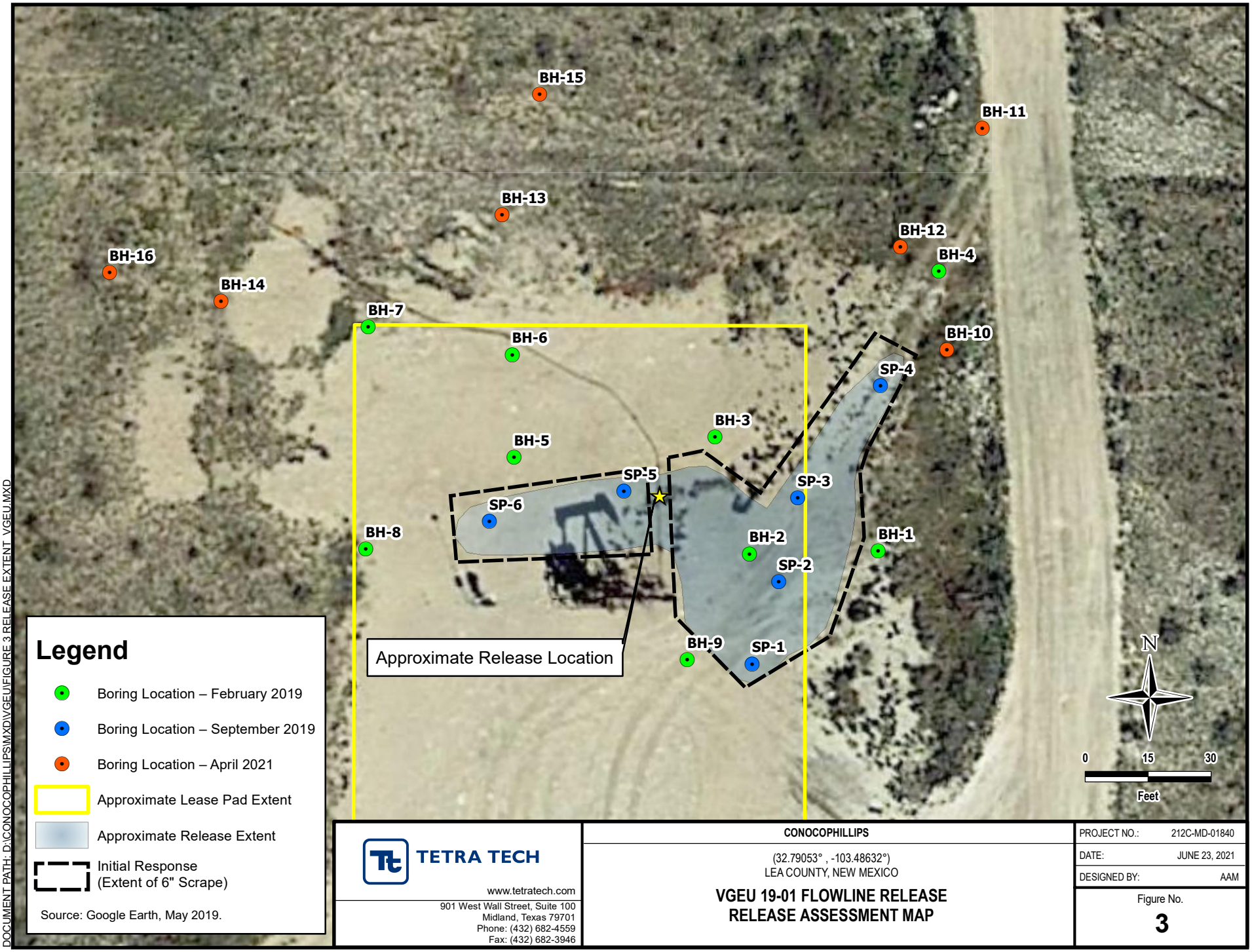
LEA COUNTY, NEW MEXICO

VGEU 19-01 FLOWLINE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-01852
DATE:	JUNE 14, 2021
DESIGNED BY:	AAM

Figure No.
2



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\VGEU\FIGURE 3 RELEASE EXTENT VGEU.MXD

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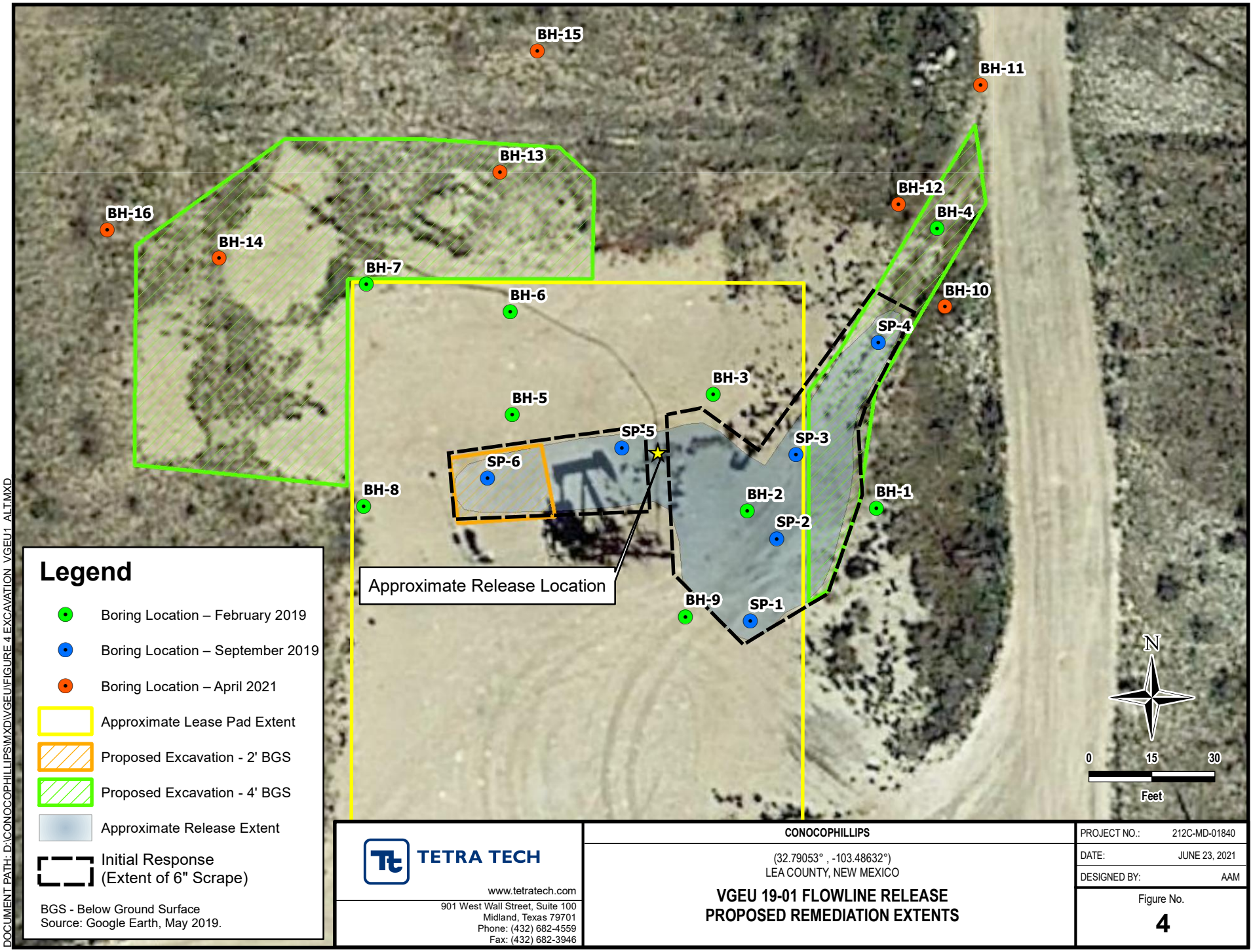
VGEU 19-01 FLOWLINE RELEASE
RELEASE ASSESSMENT MAP

PROJECT NO.:	212C-MD-01840
DATE:	JUNE 23, 2021
DESIGNED BY:	AAM

Figure No.
3



Legend

- Boring Location – February 2019
- Boring Location – September 2019
- Boring Location – April 2021
- Approximate Lease Pad Extent
- Proposed Excavation - 2' BGS
- Proposed Excavation - 4' BGS
- Approximate Release Extent
- Initial Response (Extent of 6" Scrape)

BGS - Below Ground Surface
Source: Google Earth, May 2019.

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\VGEU\FIGURE 4 EXCAVATION VGEU1 ALT.MXD

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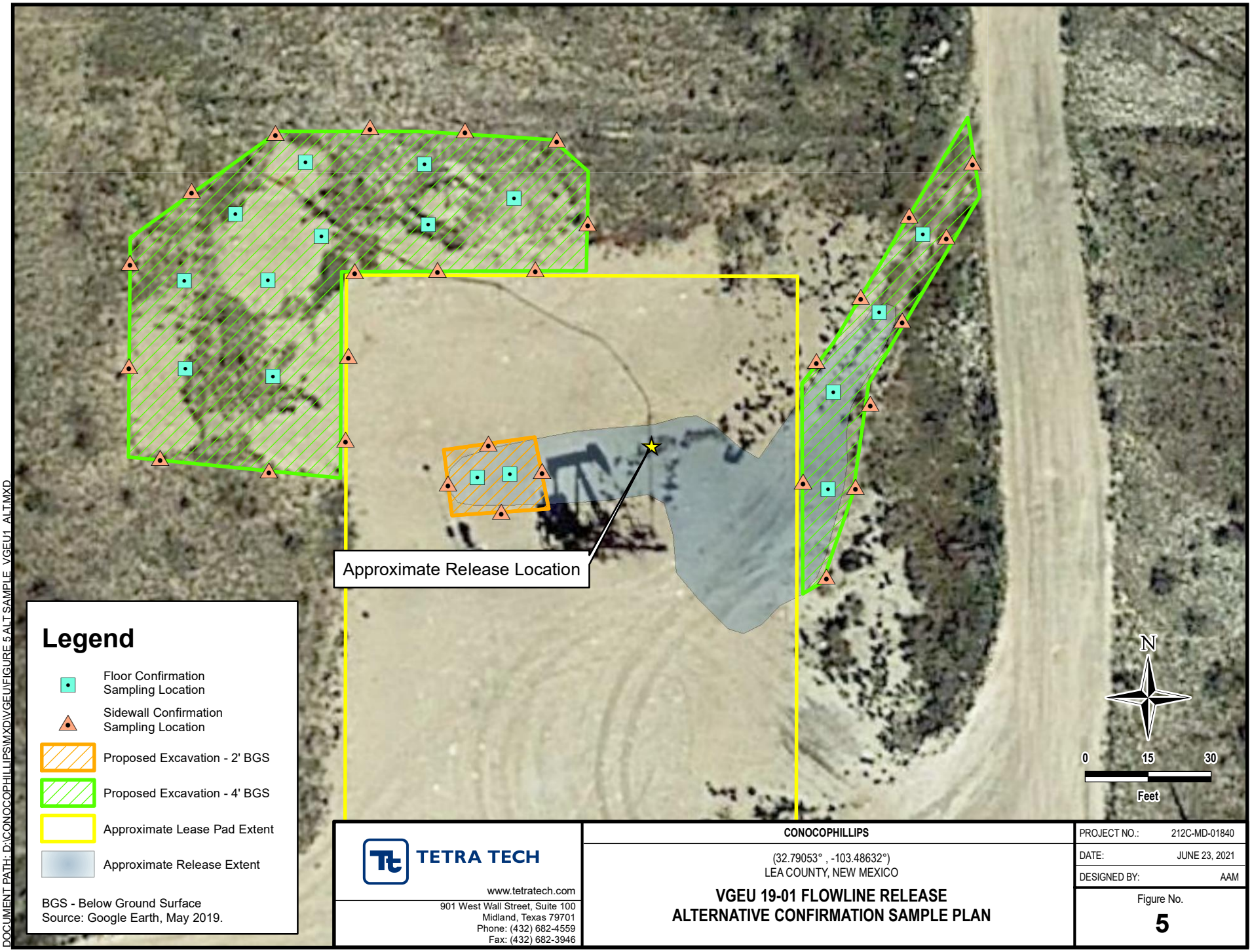
VGEU 19-01 FLOWLINE RELEASE
PROPOSED REMEDIATION EXTENTS

PROJECT NO.:	212C-MD-01840
DATE:	JUNE 23, 2021
DESIGNED BY:	AAM

Figure No.
4



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\VGEU\FIGURE 5 ALT SAMPLE_VGEU1_ALT.MXD

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VGEU 19-01 FLOWLINE RELEASE
ALTERNATIVE CONFIRMATION SAMPLE PLAN

PROJECT NO.:	212C-MD-01840
DATE:	JUNE 23, 2021
DESIGNED BY:	AAM

Figure No.
5

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
INITIAL SOIL ASSESSMENT
VGEU 19-01 FLOWLINE RELEASE
LEA COUNTY, NEW MEXICO
1RP-5304

Sample ID	Sample Date	Sample Interval	Chloride[1]	BTEX[2]										TPH[3]							
				Benzene		Toluene		Ethylbenzene		Xylene		Total BTEX		GRO		DRO		EXT DRO		Total TPH (C_6 - C_{36})	
														C_6 - C_{10}		>C_{10} - C_{28}		>C_{28} - C_{36}			
		ft. bgs	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
SP-1	02/28/19	0-1	3440	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
		2-3	48	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
SP-2	02/28/19	0-1	48	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
		2-3	64	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
SP-3	02/28/19	0-1	16	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
		2-3	160	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
SP-4	02/28/19	0-1	***8000***	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		**1610**		217		***1827***	
		2-3	***2240***	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		23.1		<0.10		23.1	
SP-5	02/28/19	0-1	11500	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
		2-3	6660	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
SP-6	02/28/19	0-1	***30000***	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	
		2-3	8130	<0.050		<0.050		<0.050		<0.150		<0.300		<0.10		<0.10		<0.10		<0.10	

NOTES:

ft.	Feet
bgs	Below ground surface
mg/kg	Milligrams per kilogram
ppm	Parts per million
TPH	Total Petroleum Hydrocarbons
*	Field screening measurement
1	Method 300.0
2	Method 8260B
3	Method 8015M
DRO	Diesel Range Organics
GRO	Gasoline Range Organics
ORO	Oil Range Organics

Bold and italicized values exceed the applicable Site RRAL and/or Reclamation Requirement.

Shaded rows indicate depth intervals proposed for excavation and remediation.

B	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.
J5	The sample matrix interfered with the ability to make accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make accurate determination; spike is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.
U	Not detected at the Sample Detection Limit (SDL).

TABLE 2
SUMMARY ANALYTICAL RESULTS
ADDITIONAL SOIL ASSESSMENT
CONOCOPHILLIPS
VGEU 19-01 FLOWLINE RELEASE
LEA COUNTY, NM
1RP-5304

	Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]									TPH[3]						
				Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX	GRO[4] C_3 - C_{10}		DRO C_{10} - C_{28}		ORO C_{28} - C_{40}		Total TPH (GRO+DRO +ORO)
			ft. bgs	ppm		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
On-pad Borings	BH-2	09/16/19	0-1	948	3.8	992		< 0.00109		< 0.00545		< 0.00272		< 0.00708		-	< 0.109		14.1		19.2		33.3
			2-3	213	3.2	326		< 0.00115		< 0.00574		< 0.00287		< 0.00747		-	< 0.116		3.31	J	9.44		12.8
			4-5	382	6.7	74.8		< 0.00111		< 0.00556		< 0.00278		< 0.00723		-	< 0.111		5.56		8.99		14.6
	BH-3	09/16/19	0-1	-	4.8	65.8		< 0.00107		< 0.00533		< 0.00267		< 0.00693		-	< 0.107		4.19	J	11.5		15.7
			2-3	143	3.7	31.8	B	< 0.00106		< 0.00532		< 0.00266		< 0.00692		-	< 0.106		2.26	J	6.86		9.12
			4-5	-	3.6	251		< 0.00115		< 0.00576		< 0.00288		< 0.00749		-	0.0275	B J	< 4.61		1.29	J	1.32
	BH-5	09/16/19	0-1	-	3.8	3250		< 0.00108		< 0.00540		< 0.00270		< 0.00702		-	< 0.108		12.3		36.4		48.7
			2-3	2420	3.4	1350		< 0.00112		< 0.00562		< 0.00281		< 0.00730		-	< 0.112		14.8		58.6		73.4
			4-5	1290	3.1	1060		< 0.00104		< 0.00522		< 0.00261		< 0.00679		-	< 0.104		< 4.18		< 4.18		-
			6-7	1970	1.2	NS		NS		NS		NS		NS		-	NS		NS		NS		-
			9-10	2990	1.1	NS		NS		NS		NS		NS		-	NS		NS		NS		-
			14-15	2620	1.6	3020		< 0.00108	T8	0.00531	J T8	0.00135	J T8	< 0.00704	T8	0.00666	< 0.108	T8	< 4.33	T8	< 4.33	T8	-
			19-20	1200	1.2	NS		NS		NS		NS		NS		-	NS		NS		NS		-
			24-25	554	1.1	260		< 0.00104	T8	0.00537	T8	< 0.00259	T8	< 0.00673	T8	0.00537	< 0.104	T8	< 4.14	T8	< 4.14	T8	-
			29-30	176	1.2	138		< 0.00104	T8	0.00478	J T8	< 0.00261	T8	< 0.00679	T8	0.00478	< 0.104	T8	< 4.18	T8	< 4.18	T8	-
	BH-6	09/16/19	0-1	-	2.7	4510		< 0.00105		< 0.00524		< 0.00262		< 0.00681		-	< 0.105		9.08		30.8		39.9
			2-3	4210	5.7	3370		< 0.00105		< 0.00524		< 0.00262		< 0.00681		-	< 0.105		10.9		37.1		48.0
			4-5	-	4.3	2210		< 0.00105		< 0.00526		< 0.00263		< 0.00684		-	< 0.105		< 4.21		< 4.21		-
			6-7	-	3.1	6500		< 0.00106	T8	0.00498	J T8	< 0.00265	T8	< 0.00689	T8	0.00498	< 0.106	T8	< 4.24	T8	< 4.24	T8	-
			9-10	5420	3.4	NS		NS		NS		NS		NS		-	NS		NS		NS		-
	BH-7	09/16/19	0-1	-	3.9	2400		< 0.00107		< 0.00536		< 0.00268		< 0.00697		-	< 0.107		9.70		44.4		54.1
			2-3	3010	4.4	1470		< 0.00108		< 0.00538		< 0.00269		< 0.00699		-	< 0.108		14.4		62.3		76.7
			4-5	-	3.5	3340		< 0.00111		< 0.00556		< 0.00278		< 0.00723		-	< 0.111		7.39		23.5		30.9
			6-7	-	3.1	3760		< 0.00110	T8	0.00545	J T8	< 0.00275	T8	< 0.00716	T8	0.00545	< 0.110	T8	< 4.40	T8	< 4.40	T8	-
			9-10	2990	5.8	NS		NS		NS		NS		NS		-	NS		NS		NS		-
	BH-8	09/16/19	0-1	-	4.8	44.0		< 0.00103		< 0.00515		< 0.00258		< 0.00670		-	< 0.103		< 4.12		7.08		7.08
			2-3	331	6.5	158		< 0.00105		< 0.00527		< 0.00263		< 0.00684		-	< 0.105		2.92	J	8.76		11.7
			4-5	102	6.3	14.6	B	< 0.00110		< 0.00550		< 0.00275		< 0.00715		-	< 0.110		< 4.40		< 4.40		-
			6-7	-	5.5	NS		NS		NS		NS		NS		-	NS		NS		NS		-
	BH-9	09/16/19	0-1	310	2.9	104		< 0.00102		< 0.00510		< 0.00255		< 0.00663		-	< 0.103		2.90	J	13.2		16.1
			2-3	589	2.8	184		< 0.00101		< 0.00504		< 0.00252		< 0.00656		-	< 0.101		5.12		29.4		34.5
			4-5	572	2.4	750		< 0.00106		< 0.00531		< 0.00266		< 0.00690		-	< 0.107		< 4.25		0.649	J	0.649
			6-7	271	2.1	251		< 0.00102	T8	0.00532	T8	< 0.00256	T8	< 0.00665	T8	0.00532	< 0.102	T8	< 4.09	T8	< 4.09	T8	-

TABLE 2
SUMMARY ANALYTICAL RESULTS
ADDITIONAL SOIL ASSESSMENT
CONOCOPHILLIPS
VGEU 19-01 FLOWLINE RELEASE
LEA COUNTY, NM
1RP-5304

	Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]									TPH[3]						
				Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX	GRO[4] C_3 - C_{10}		DRO C_{10} - C_{28}		ORO C_{28} - C_{40}		Total TPH (GRO+DRO +ORO)
			ft. bgs	ppm		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
Off-pad Borings	BH-1	09/16/19	0-1	267	4.3	110		< 0.00105		< 0.00524		< 0.00262		< 0.00682		-	< 0.105		4.75		11.3		16.1
			2-3	241	4.1	114		< 0.00107		< 0.00536		< 0.00268		< 0.00697		-	< 0.107		5.84		14.6		20.4
			4-5	-	2.9	359		< 0.00107		< 0.00534		< 0.00267		< 0.00694		-	< 0.107		3.85	J	7.35		11.2
			6-7	-	2.1	NS		NS		NS		NS		NS		-	NS		NS		NS		-
	BH-4	09/16/19	0-1	-	2.1	***2880***		< 0.00106		< 0.00531		< 0.00265		< 0.00690		-	< 0.106	J3	6.51		16.8		23.3
			2-3	1600	4.8	***1650***		< 0.00109		< 0.00543		< 0.00272		< 0.00706		-	< 0.109		4.97		11.5		16.5
			4-5	113	4.9	70.4		< 0.00106		< 0.00531		< 0.00266		< 0.00691		-	0.0233	B J	< 4.25		2.20	J	2.22
	BH-10	4/8/2021	0-1	30.2	-	28.4		< 0.00103		< 0.00515		< 0.00257		< 0.00669		-	< 0.101		9.30		41.3		50.6
			2-3	76.1	-	59.1		< 0.00107		< 0.00537		< 0.00269		< 0.00699		-	< 0.104		2.33	J	6.16	B	8.49
			3-4	-	-	82.1		< 0.00106		< 0.00530		< 0.00265		< 0.00689		-	< 0.103		< 4.12		1.05	J	1.05
			4-5	32.1	-	20.4	J	< 0.00112		< 0.00559		< 0.00280		< 0.00272		-	< 0.106		2.05	J	0.753	J	2.80
	BH-11	4/8/2021	0-1	25.8	-	25.4		< 0.00110		< 0.00548		< 0.00274		0.00150	J	0.00150	0.213		3.49	J	25.7		29.4
			2-3	-	-	39.1	P1	< 0.00118	J3	< 0.00591		< 0.00295	J3	< 0.00768		-	0.100	J	4.96		18.5		23.6
			3-4	-	-	33.7		< 0.00109		< 0.00546		< 0.00273		< 0.00709		-	0.0581	J	3.69	J	9.20		12.9
			4-5	21.5	-	14.6	J	< 0.00105		< 0.00527		< 0.00264		< 0.00685		-	0.0244	J	2.58	J	4.65		7.25
	BH-12	4/8/2021	0-1	100	-	379		< 0.00109		< 0.00543		< 0.00272		< 0.00706		-	< 0.104		3.72	J	17.1		20.8
			2-3	160	-	253		< 0.00108		< 0.00542		< 0.00271		< 0.00705		-	< 0.104		< 4.17		2.37	J	2.37
			3-4	50.1	-	65.6		< 0.00108		< 0.00538		< 0.00269		< 0.00699		-	< 0.104		< 4.15		1.93	J	1.93
			4-5	20.5	-	17.7	J	0.00110	J	< 0.00570		< 0.00285		< 0.00741		0.00110	< 0.107		< 4.28		0.893	J	0.893
	BH-13	4/8/2021	0-1	-	-	***5700***		< 0.00140		< 0.00698		< 0.00349		< 0.00907		-	< 0.120		7.36		20.2		27.6
			2-3	2500	-	***3250***		< 0.00127		< 0.00636		< 0.00318		< 0.00827		-	< 0.114		7.80		16.1		23.9
			3-4	500	-	552		< 0.00111		< 0.00555		< 0.00277		< 0.00721		-	< 0.105		< 4.22		2.86	J	2.86
			4-5	250	-	376		< 0.00108		< 0.00541		< 0.00271		< 0.00703		-	0.0523	J	< 4.16		2.43	J	2.48
	BH-14	4/8/2021	0-1	359	-	337		< 0.00131		< 0.00656		< 0.00328		< 0.00853		-	0.107	J	6.02		28.1		34.2
			2-3	-	-	***1080***		< 0.00110		< 0.00551		< 0.00275		< 0.00716		-	< 0.105		2.61	J	7.20		9.81
			3-4	320	-	428		< 0.00113		< 0.00565		< 0.00282		< 0.00734		-	< 0.106		6.58		13.2		19.8
			4-5	395	-	493		< 0.00111		< 0.00557		< 0.00278		< 0.00724		-	0.0264	J	3.10	J	8.09		11.2
	BH-15	4/8/2021	0-1	79.1	-	88.8		< 0.00108		< 0.00542		< 0.00271		< 0.00704		-	< 0.104		4.32		14.6		18.9
			2-3	68.3	-	72.5		< 0.00107		< 0.00534		< 0.00267		< 0.00694		-	< 0.103		1.71	J	4.43	B	6.14
			3-4	120	-	139		< 0.00107		< 0.00537		< 0.00269		< 0.00699		-	< 0.104		< 4.15		3.93	B J	3.93
			4-5	159	-	310		< 0.00115		< 0.00573		< 0.00287		< 0.00745		-	< 0.107		1.97	J	4.37	B	6.34
	BH-16	4/8/2021	0-1	80.2	-	93.0		< 0.00118		< 0.00588		< 0.00294		< 0.00764		-	< 0.109		5.93		20.3		26.2
			2-3	123	-	140	J3	< 0.00105		< 0.00524		< 0.00262		< 0.00681		-	< 0.102		4.21		10.4		14.6
			3-4	-	-	144		< 0.00112		< 0.00558		< 0.00279	J3	< 0.00726		-	< 0.106		3.24	J	5.62	B	8.86
			4-5	105	-	85.8		< 0.00107		< 0.00535		< 0.00268		< 0.00696		-	< 0.103		< 4.14		3.29	B J	3.29

NOTES:

ft.	Feet
bgs	Below ground surface
ppm	Parts per million
mg/kg	Milligrams per kilogram
NS	Not sampled
TPH	Total Petroleum Hydrocarbons
GRO	Gasoline range organics
DRO	Diesel range organics
ORO	Oil range organics
1	EPA Method 300.0
2	EPA Method 8260B
3	EPA Method 8015
4	EPA Method 8015D/GRO

Bold and italicized values indicate exceedance of applicable Site RRAL and/or Reclamation Requirement.
Shaded rows indicate intervals proposed for excavation.

QUALIFIERS:

B	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.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.

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	NCH1903240708
District RP	1RP-5304
Facility ID	
Application ID	pCH1903241056

Release Notification

Responsible Party

Responsible Party ConocoPhillips	OGRID 217817
Contact Name Justin Wright	Contact Telephone +1-575-631-9092
Contact email Justin.Wright@conocophillips.com	Incident NCH1903240708 VGEU 19-01 @ 30-025-20846
Contact mailing address 29 Vacuum Complex Lane, Lovington	

Location of Release Source

Latitude 32.7905655 Longitude -103.4863052
(NAD 83 in decimal degrees to 5 decimal places)

Site Name VGEU 19-01	Site Type Producing Well
Date Release Discovered 12-10-2018	API# *(if applicable)* 30-025-20846

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

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 45	Volume Recovered (bbls) 25
	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 - – December 10, 2018 at 1500. A flowline leak resulted in a 45 BBL release. 25 BPW were recovered. Site will be remediated per NMOCD guidelines.

State of New Mexico
Oil Conservation Division

Incident ID	NCH1903240708
District RP	1RP-5304
Facility ID	
Application ID	pCH1903241056

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release greater than 25 BBL
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Email – Olivia Yu and Christina Hernandez	

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.

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

☒ 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: Cullen Rosine Title: HSE Specialist

Signature: Cullen Rosine Date: 12-13-2018

email: Cullen.j.rosine@conocophillips.com Telephone: 973-727-4779

OCD Only

Received by: Date:

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	NCH1903240708
District RP	1RP-5304
Facility ID	
Application ID	pCH1903241056

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NCH1903240708
District RP	1RP-5304
Facility ID	
Application ID	pCH1903241056

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: 8/11/2021

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NCH1903240708
District RP	1RP-5304
Facility ID	
Application ID	pCH1903241056

Remediation Plan

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

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

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

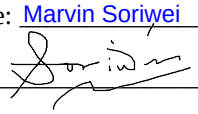
☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Marvin Soriwei Title: Program Manager, Risk Management & Remediation

Signature:  Date: 8/11/2021

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

APPENDIX B
NMOSE Groundwater Data

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

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 14183 POD2		L	LE	3	2	2	31	17S	35E	641304	3629691	745	227	105	122
L 14183 POD1		L	LE	3	2	2	31	17S	35E	641266	3629667	749	229	106	123
L 03875 S2	R	L	LE			2	31	17S	35E	641131	3629576*	781	120	95	25
L 03875 S4		L	LE			2	31	17S	35E	641131	3629576*	781	120		

Average Depth to Water: **102 feet**

Minimum Depth: **95 feet**

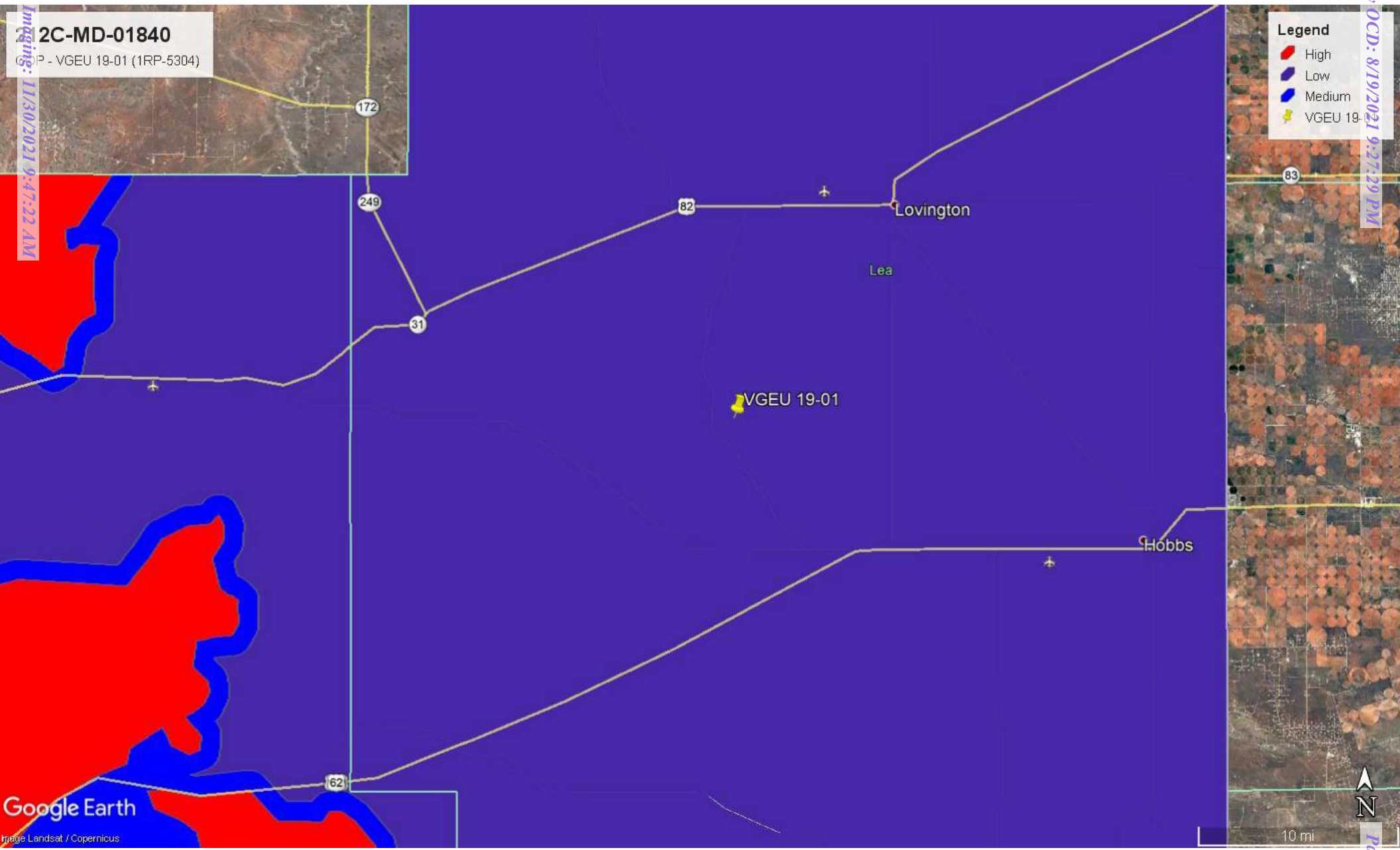
Maximum Depth: **106 feet**

Record Count: 4

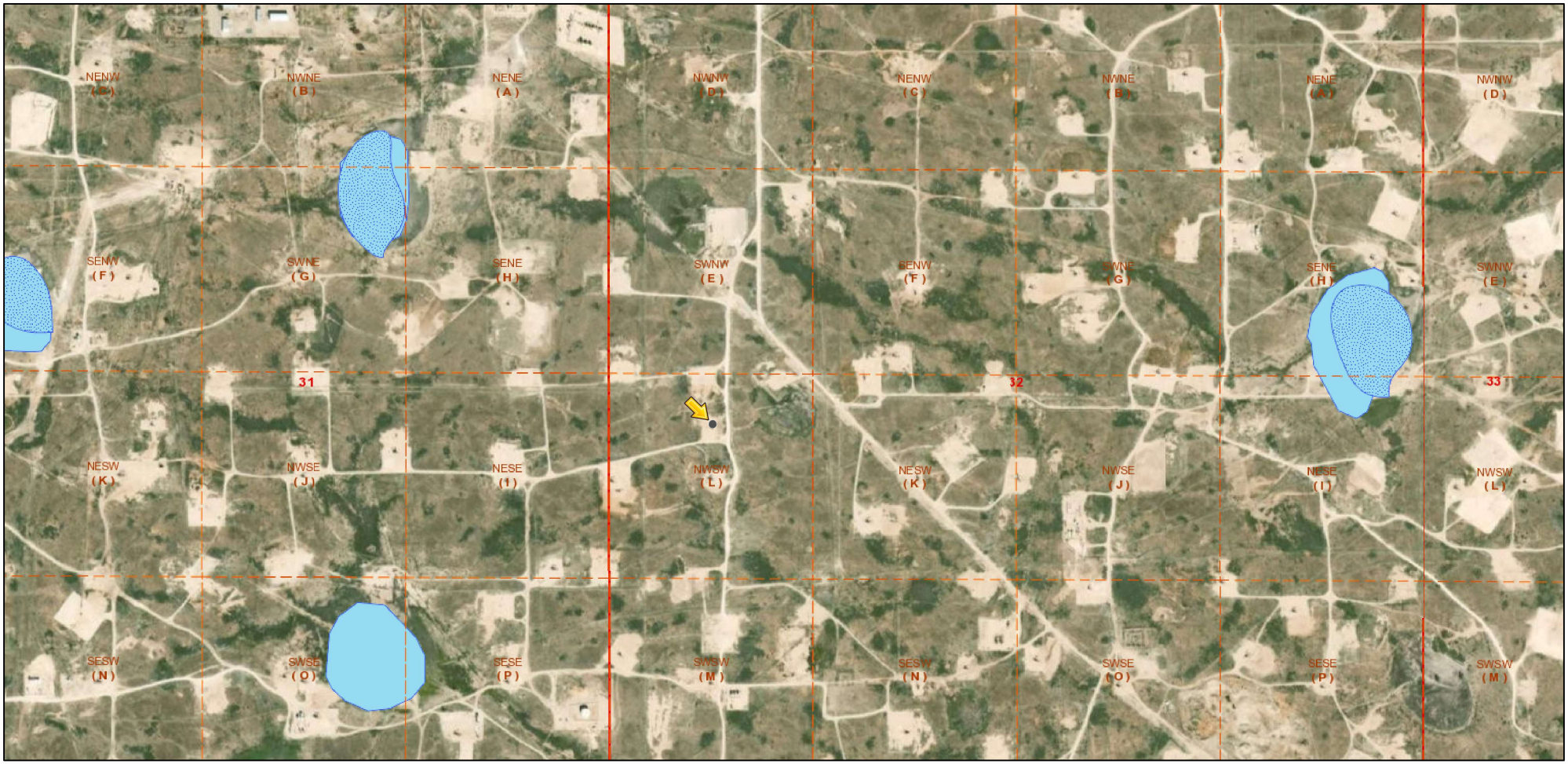
UTMNAD83 Radius Search (in meters):

Easting (X): 641741 **Northing (Y):** 3629087 **Radius:** 800

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



212C-MD-01840



3/23/2021, 10:40:41 AM

Override 1

OCD District Offices

PLSS First Division

PLSS Second Division

OSE Water-bodies

PLJV Probable Playas

OSE Streams

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

USDA FSA, GeoEye, Maxar, OCD, BLM

New Mexico Oil Conservation Division

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

APPENDIX C
Boring Logs

212C-MD-01840 | TETRA TECH | **LOG OF BORING BH-1** | Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790561° E -103.486160° | Surface Elevation: 3969 ft

Borehole Number: BH-1 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			267	4.3								**-ML-** SILT; Brown, medium dense to dense, with no hydrocarbon odor, with no staining.		BH-1 (0'-1')
			241	4.1										BH-1 (2'-3')
													3.5	
5				2.9								**-SM-** SILTY SAND; White, loose to medium dense, cemented with heavy gravel, with no hydrocarbon odor, with no staining.		BH-1 (4'-5')
				2.1									7	BH-1 (6'-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840	TETRA TECH	**LOG OF BORING BH-2**	Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790560° E -103.486260° | Surface Elevation: 3970 ft

Borehole Number: BH-2 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			948	3.8								**-ML-** SILT; Brown, medium dense to dense, with no hydrocarbon odor, with no staining.	1.5	BH-2 (0'-1')
			213	3.2								**-CL-** SILTY CLAY; Brown, medium stiff, with no hydrocarbon odor, with no staining.		BH-2 (2'-3')
5			382	6.7									5	BH-2 (4'-5')

Bottom of borehole at 5.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840	TETRA TECH	**LOG OF BORING BH-3**	Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790636° E -103.486285° | Surface Elevation: 3969 ft

Borehole Number: BH-3 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
				4.8								**-ML-** SILT; Brown, medium dense, with few gravel, with low hydrocarbon odor, with no staining.	1.5	BH-3 (0'-1')
			143	3.7								**-SM-** SILTY SAND; White, loose, with heavy gravel, with no hydrocarbon odor, with no staining.		BH-3 (2'-3')
5				3.6									5	BH-3 (4'-5')

Bottom of borehole at 5.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840	TETRA TECH	**LOG OF BORING BH-4**	Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790744° E -103.486111° | Surface Elevation: 3970 ft

Borehole Number: BH-4 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
				2.1								**-ML-** SILT; Brown, loose to medium dense, with few gravel, with no hydrocarbon odor, with no staining.		BH-4 (0'-1')
			1620	4.8										BH-4 (2'-3')
													3.5	
5			113	4.9								**-SM-** SILTY SAND; White, loose, with heavy gravel , with no hydrocarbon odor, with no staining.	5	BH-4 (4'-5')

Bottom of borehole at 5.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840	TETRA TECH	**LOG OF BORING BH-5**	Page 1 of 2

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790624° E -103.486441° | Surface Elevation: 3971 ft

Borehole Number: BH-5 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
				3.8								**-ML-** SILT; Brown, dense, with low hydrocarbon odor, with little staining.	1.5	BH-5 (0'-1')
			2420	3.4								**-ML-** SILT; Brown, medium dense to dense, with few gravel, with no hydrocarbon odor, with no staining.	3.5	BH-5 (2'-3')
5			1290	3.1								**-SM-** SILTY SAND; White, loose, with heavy gravel, with no hydrocarbon odor, with no staining.	5.5	BH-5 (4'-5')
			1970	1.2								**-SM-** SILTY SAND; White to tan, loose to medium dense, cemented with gravel mix, with no hydrocarbon odor, with no staining.		BH-5 (6'-7')
10			2990	1.1										BH-5 (9'-10')
15			2620	1.6										BH-5 (14'-15')
20			1200	1.2										BH-5 (19'-20')
25			554	1.1										BH-5 (24'-25')

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, Auger, Air Rotary, Core Barrel, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840 | TETRA TECH | **LOG OF BORING BH-5** | Page 2 of 2

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790624° E -103.486441° | Surface Elevation: 3971 ft

Borehole Number: BH-5 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
30			176	1.2									30	BH-5 (29'-30')

Bottom of borehole at 30.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840 | TETRA TECH | **LOG OF BORING BH-6** | Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790691° E -103.486442° | Surface Elevation: 3971 ft

Borehole Number: BH-6 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
				2.7								**-ML-** SILT; Brown, medium dense to dense, with few gravel, with low hydrocarbon odor, with little staining.		BH-6 (0'-1')
			4210	5.7										BH-6 (2'-3')
													3.5	
5				4.3								**-SM-** SILTY SAND; White, loose, cemented with heavy gravel, with low hydrocarbon odor, with little staining.		BH-6 (4'-5')
				3.1										BH-6 (6'-7')
10			5420	3.4									10	BH-6 (9'-10')

Bottom of borehole at 10.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840 | TETRA TECH | **LOG OF BORING BH-7** | Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790710° E -103.486554° | Surface Elevation: 3971 ft

Borehole Number: BH-7 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
				3.9								**-ML-** SILT; Brown, medium dense, with low hydrocarbon odor, with little staining.	1.5	BH-7 (0'-1')
			3010	4.4								**-CL-** SANDY CLAY; Brown, medium stiff, with no hydrocarbon odor, with no staining.		BH-7 (2'-3')
5				3.5										BH-7 (4'-5')
				3.1								**-SM-** SILTY SAND; White, loose, with gravel, with no hydrocarbon odor, with no staining.	5.5	BH-7 (6'-7')
10			2990	5.8									10	BH-7 (9'-10')

Bottom of borehole at 10.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840 | TETRA TECH | **LOG OF BORING BH-8** | Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790565° E -103.486557° | Surface Elevation: 3972 ft

Borehole Number: BH-8 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
				4.8								**-ML-** SILT; Brown, loose to medium dense, with gravel, with low hydrocarbon odor, with no staining.		BH-8 (0'-1')
			331	6.5										BH-8 (2'-3')
													3.5	
5			102	6.3								**-SM-** SILTY SAND; White, loose, with gravel, with no hydrocarbon odor, with no staining.		BH-8 (4'-5')
				5.5									7	BH-8 (6'-7')

Bottom of borehole at 7.0 feet.

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, Auger, Air Rotary, Core Barrel, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-01840 | TETRA TECH | **LOG OF BORING BH-9** | Page 1 of 1

Project Name: VGEU 19-01 Flowline Release

Borehole Location: GPS: N 32.790491° E -103.486308° | Surface Elevation: 3970 ft

Borehole Number: BH-9 | Borehole Diameter (in.): 8 | Date Started: 9/16/2019 | Date Finished: 9/16/2019

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			310	2.9								**-SM-** SILTY SAND; White, loose, with gravel, with no hydrocarbon odor, with no staining.		BH-9 (0'-1')
			589	2.8										BH-9 (2'-3')
5			572	2.4										BH-9 (4'-5')
			271	2.1									7	BH-9 (6'-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Core Barrel, Wash Rotary, Direct Push

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

APPENDIX D
Laboratory Analytical Reports

CARDINAL Laboratories

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

March 06, 2019

JUSTIN WRIGHT

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: VGEU 19-01

Enclosed are the results of analyses for samples received by the laboratory on 03/01/19 11:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 1 - 1' (H900821-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2019	ND	1.92	95.9	2.00	1.39	
Toluene*	<0.050	0.050	03/05/2019	ND	2.03	101	2.00	2.11	
Ethylbenzene*	<0.050	0.050	03/05/2019	ND	1.95	97.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	03/05/2019	ND	5.65	94.2	6.00	4.59	
Total BTEX	<0.300	0.300	03/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.8 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3440**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	230	115	200	2.65	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	217	109	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *91.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *93.9 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 1 - 3' (H900821-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2019	ND	1.92	95.9	2.00	1.39	
Toluene*	<0.050	0.050	03/05/2019	ND	2.03	101	2.00	2.11	
Ethylbenzene*	<0.050	0.050	03/05/2019	ND	1.95	97.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	03/05/2019	ND	5.65	94.2	6.00	4.59	
Total BTEX	<0.300	0.300	03/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.3 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	230	115	200	2.65	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	217	109	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *89.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *92.5 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 2 - 1' (H900821-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	230	115	200	2.65	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	217	109	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *90.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *91.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 2 - 3' (H900821-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *92.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.4 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 3 - 1' (H900821-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *89.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.0 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 3 - 3' (H900821-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.9 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *93.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *95.8 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 4 - 1' (H900821-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8000**	16.0	03/06/2019	ND	400	100	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	**1610**	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	**217**	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *93.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *148 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 4 - 3' (H900821-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2240**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	**23.1**	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *86.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.6 %* *37.6-147*

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CARDINAL Laboratories

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Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 5 - 1' (H900821-09)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**11500**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *90.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *90.9 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 5 - 3' (H900821-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6660**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *94.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *95.4 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 6 - 1' (H900821-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**30000**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *87.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *85.7 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2019	Sampling Date:	02/28/2019
Reported:	03/06/2019	Sampling Type:	Soil
Project Name:	VGEU 19-01	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA CO NM		

Sample ID: SP 6 - 3' (H900821-12)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2019	ND	1.89	94.4	2.00	11.6	
Toluene*	<0.050	0.050	03/04/2019	ND	1.95	97.6	2.00	12.8	
Ethylbenzene*	<0.050	0.050	03/04/2019	ND	1.85	92.5	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/04/2019	ND	5.39	89.8	6.00	13.7	
Total BTEX	<0.300	0.300	03/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.1 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8130**	16.0	03/06/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2019	ND	209	104	200	0.367	
DRO >C10-C28*	<10.0	10.0	03/04/2019	ND	216	108	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/04/2019	ND					

Surrogate: 1-Chlorooctane *88.5 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.8 %* *37.6-147*

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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

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

Page_____ of_____

Company Name:	ConocoPhillips
Project Manager:	Justin Wright
Address:	
City:	Hobbs
State:	NM
Zip:	
Phone #:	575-631-9098
Fax #:	
Project #:	
Project Owner:	COPC
Project Name:	VGEU 19-01
Project Location:	Lea County, NM
Sampler Name:	Justin Wright

BILL TO

P.O. #:	
Company:	COPC
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Chlorides	BTEX	TPH
H900821																	
1	SP1-1'	G				✓					✓		2-28	2:10	✓	✓	✓
2	SP1-3'	G				✓					✓		2-28	2:17	✓	✓	✓
3	SP2-1'	G				✓					✓		2-28	2:21	✓	✓	✓
4	SP2-3'	G				✓					✓		2-28	2:25	✓	✓	✓
5	SP3-1'	G				✓					✓		2-28	2:32	✓	✓	✓
6	SP3-3'	G				✓					✓		2-28	2:37	✓	✓	✓
7	SP4-1'	G				✓					✓		2-28	2:41	✓	✓	✓
8	SP4-3'	G											2-28	2:45			

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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 3-1-19	Received By: Jodi Henson	
Relinquished By:	Time: 11:20 AM	Received By:	
	Date:		
	Time:		

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

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Temp. 1.8°C / #97

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) JH

Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

CARDINAL LABORATORIES

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

Page____ of____

Company Name:	ConocoPhillips
Project Manager:	Justin Wright
Address:	
City:	Hobbs
State:	NM
Zip:	
Phone #:	575-631-9092
Fax #:	
Project #:	
Project Owner:	COPC
Project Name:	VGEU 19-01
Project Location:	Lea County, NM
Sampler Name:	Justin Wright

BILL TO

P.O. #:	
Company:	COPC
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Chlorides	BTEX	TPH
H900624																	
9	SP-5-1'	G				✓							2-28	2:50	✓	✓	✓
10	SP-5-3'	G				✓							2-28	2:56	✓	✓	✓
11	SP-6-1'	G				✓							2-28	2:59	✓	✓	✓
12	SP-6-3'	G				✓							2-28	3:04	✓	✓	✓

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 service. In no event 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 upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 2-1-19	Received By: Jodi Henson	
Relinquished By:	Time: 11:30AM	Received By:	
	Date:		
	Time:		

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

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Temp. 1.8°C #97

Sample Condition: Cool ☐ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) JH

Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 01, 2019

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1142081
Samples Received:	09/21/2019
Project Number:	212C-MS-01840
Description:	COP VGEU 19-01

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

Entire Report Reviewed By:

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.

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Sc: Sample Chain of Custody 56

BH-1 (0-1') L1142081-01 Solid

Collected by | Collected date/time 09/16/19 10:00 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353379	1	09/27/19 13:48	09/27/19 14:01	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 10:06	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 18:03	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 10:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 00:46	KME	Mt. Juliet, TN

BH-1 (2-3') L1142081-02 Solid

Collected by | Collected date/time 09/16/19 10:05 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353379	1	09/27/19 13:48	09/27/19 14:01	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 10:24	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 18:24	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 11:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 01:24	KME	Mt. Juliet, TN

BH-1 (4-5') L1142081-03 Solid

Collected by | Collected date/time 09/16/19 10:10 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353379	1	09/27/19 13:48	09/27/19 14:01	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 10:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 18:44	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 12:53	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 01:37	KME	Mt. Juliet, TN

BH-2 (0-1') L1142081-04 Solid

Collected by | Collected date/time 09/16/19 10:30 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353379	1	09/27/19 13:48	09/27/19 14:01	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	5	09/24/19 08:30	09/24/19 10:43	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 19:05	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 13:14	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 11:55	09/29/19 01:49	KME	Mt. Juliet, TN

BH-2 (2-3') L1142081-05 Solid

Collected by | Collected date/time 09/16/19 10:35 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353379	1	09/27/19 13:48	09/27/19 14:01	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 10:53	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1.01	09/25/19 16:52	09/27/19 19:25	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 13:35	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 11:55	09/29/19 02:02	KME	Mt. Juliet, TN

BH-2 (4-5') L1142081-06 Solid

Collected by | Collected date/time 09/16/19 10:40 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353379	1	09/27/19 13:48	09/27/19 14:01	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 11:02	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 19:46	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 13:55	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 02:14	KME	Mt. Juliet, TN

BH-3 (0-1') L1142081-07 Solid

Collected by | Collected date/time 09/16/19 10:50 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 11:12	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 20:06	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 14:16	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 02:27	KME	Mt. Juliet, TN

BH-3 (2-3') L1142081-08 Solid

Collected by | Collected date/time 09/16/19 10:55 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 11:41	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 20:27	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 14:37	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 02:39	KME	Mt. Juliet, TN

BH-3 (4-5) L1142081-09 Solid

Collected by | Collected date/time 09/16/19 11:00 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 11:50	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354679	1	09/25/19 16:52	09/30/19 13:14	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 14:57	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 02:52	KME	Mt. Juliet, TN

BH-4 (0-1') L1142081-10 Solid

Collected by | Collected date/time 09/16/19 11:20 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	10	09/24/19 08:30	09/24/19 12:00	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 21:36	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 15:18	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 03:05	KME	Mt. Juliet, TN

BH-4 (2-3') L1142081-11 Solid

Collected by | Collected date/time 09/16/19 11:25 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	10	09/24/19 08:30	09/24/19 12:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/27/19 21:56	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 15:39	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 03:17	KME	Mt. Juliet, TN

BH-4 (4-5') L1142081-12 Solid

Collected by | Collected date/time 09/16/19 11:30 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	1	09/24/19 08:30	09/24/19 12:19	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354679	1	09/25/19 16:52	09/30/19 13:34	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 16:00	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 03:30	KME	Mt. Juliet, TN

BH-5 (0-1') L1142081-13 Solid

Collected by | Collected date/time 09/16/19 11:45 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	10	09/24/19 08:30	09/24/19 12:28	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354679	1	09/25/19 16:52	09/30/19 13:55	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 16:20	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 07:57	09/29/19 03:42	KME	Mt. Juliet, TN

BH-5 (2-3') L1142081-14 Solid

Collected by | Collected date/time 09/16/19 11:50 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	5	09/24/19 08:30	09/24/19 12:38	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354679	1	09/25/19 16:52	09/30/19 14:50	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 16:41	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 01:53	CLG	Mt. Juliet, TN

BH-5 (4-5) L1142081-15 Solid

Collected by | Collected date/time 09/16/19 11:55 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	5	09/24/19 08:30	09/24/19 13:35	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/28/19 03:12	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 17:01	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/26/19 21:54	CLG	Mt. Juliet, TN

BH-6 (0-1') L1142081-16 Solid

Collected by | Collected date/time 09/16/19 13:30 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353381	1	09/27/19 13:35	09/27/19 13:46	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	20	09/24/19 08:30	09/24/19 13:44	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/28/19 03:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352512	1	09/25/19 16:52	09/26/19 17:21	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 01:16	CLG	Mt. Juliet, TN

BH-6 (2-3') L1142081-17 Solid

Collected by | Collected date/time 09/16/19 13:40 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	20	09/24/19 08:30	09/24/19 13:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/28/19 03:53	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1353482	1	09/25/19 16:52	09/28/19 11:35	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 01:28	CLG	Mt. Juliet, TN

BH-6 (4-5') L1142081-18 Solid

Collected by | Collected date/time 09/16/19 13:50 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	10	09/24/19 08:30	09/24/19 14:03	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/28/19 08:45	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 21:04	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/26/19 22:07	CLG	Mt. Juliet, TN

BH-7 (0-1') L1142081-19 Solid

Collected by | Collected date/time 09/16/19 14:30 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	10	09/24/19 08:30	09/24/19 14:13	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/28/19 09:06	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 21:25	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 02:06	CLG	Mt. Juliet, TN

BH-7 (2-3') L1142081-20 Solid

Collected by | Collected date/time 09/16/19 14:35 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350262	5	09/24/19 08:30	09/24/19 14:32	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353634	1	09/25/19 16:52	09/28/19 09:26	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 21:45	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 02:19	CLG	Mt. Juliet, TN

BH-7 (4-5') L1142081-21 Solid

Collected by | Collected date/time 09/16/19 14:40 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350445	10	09/23/19 17:40	09/24/19 00:14	LDC	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354028	1	09/25/19 16:52	09/27/19 21:55	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 22:05	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/26/19 23:47	CLG	Mt. Juliet, TN

BH-8 (0-1') L1142081-22 Solid

Collected by | Collected date/time 09/16/19 15:00 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350445	1	09/23/19 17:40	09/24/19 00:23	LDC	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354028	1	09/25/19 16:52	09/27/19 22:16	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 22:26	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1353768	1	09/28/19 11:55	09/29/19 03:55	KME	Mt. Juliet, TN

BH-8 (2-3') L1142081-23 Solid

Collected by | Collected date/time 09/16/19 15:10 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350445	1	09/23/19 17:40	09/24/19 00:33	LDC	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354028	1	09/25/19 16:52	09/27/19 22:36	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 22:46	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 00:38	CLG	Mt. Juliet, TN

BH-8 (4-5') L1142081-24 Solid

Collected by | Collected date/time 09/16/19 15:20 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350714	1	09/24/19 17:30	09/24/19 19:52	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354028	1	09/25/19 16:52	09/27/19 22:57	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 23:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/26/19 23:35	CLG	Mt. Juliet, TN

BH-9 (0-1') L1142081-25 Solid

Collected by | Collected date/time 09/16/19 15:45 | Received date/time 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350714	1	09/24/19 17:30	09/24/19 20:10	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354028	1.01	09/25/19 16:52	09/27/19 23:17	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 23:27	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 01:03	CLG	Mt. Juliet, TN

BH-9 (2-3') L1142081-26 Solid

			Collected by	Collected date/time	Received date/time
				09/16/19 15:50	09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353382	1	09/27/19 13:17	09/27/19 13:32	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350714	1	09/24/19 17:30	09/24/19 20:20	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1354028	1	09/25/19 16:52	09/27/19 23:38	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/26/19 23:47	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/27/19 01:41	CLG	Mt. Juliet, TN

BH-9 (4-5') L1142081-27 Solid

			Collected by	Collected date/time	Received date/time
				09/16/19 15:55	09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1353383	1	09/30/19 07:49	09/30/19 07:58	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1350714	1	09/24/19 17:30	09/24/19 20:29	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1353697	1.01	09/25/19 16:52	09/28/19 08:11	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1352625	1	09/25/19 16:52	09/27/19 00:08	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1352422	1	09/26/19 06:43	09/26/19 22:57	CLG	Mt. Juliet, TN

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

Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	09/27/2019 14:01	WG1353379

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	110		0.834	10.0	10.5	1	09/24/2019 10:06	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0228	0.100	0.105	1	09/27/2019 18:03	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*97.3*				*77.0-120*		*09/27/2019 18:03*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000420	0.00100	0.00105	1	09/26/2019 10:48	WG1352512
Toluene	U		0.00131	0.00500	0.00524	1	09/26/2019 10:48	WG1352512
Ethylbenzene	U		0.000556	0.00250	0.00262	1	09/26/2019 10:48	WG1352512
Total Xylenes	U		0.00501	0.00650	0.00682	1	09/26/2019 10:48	WG1352512
(S) Toluene-d8	*114*				*75.0-131*		*09/26/2019 10:48*	WG1352512
(S) 4-Bromofluorobenzene	*107*				*67.0-138*		*09/26/2019 10:48*	WG1352512
(S) 1,2-Dichloroethane-d4	*98.2*				*70.0-130*		*09/26/2019 10:48*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.75		1.69	4.00	4.20	1	09/29/2019 00:46	WG1353768
C28-C40 Oil Range	11.3		0.287	4.00	4.20	1	09/29/2019 00:46	WG1353768
(S) o-Terphenyl	*55.9*				*18.0-148*		*09/29/2019 00:46*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	09/27/2019 14:01	WG1353379

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	114		0.853	10.0	10.7	1	09/24/2019 10:24	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0233	0.100	0.107	1	09/27/2019 18:24	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.7*				*77.0-120*		*09/27/2019 18:24*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000429	0.00100	0.00107	1	09/26/2019 11:09	WG1352512
Toluene	U		0.00134	0.00500	0.00536	1	09/26/2019 11:09	WG1352512
Ethylbenzene	U		0.000568	0.00250	0.00268	1	09/26/2019 11:09	WG1352512
Total Xylenes	U		0.00512	0.00650	0.00697	1	09/26/2019 11:09	WG1352512
(S) Toluene-d8	*115*				*75.0-131*		*09/26/2019 11:09*	WG1352512
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/26/2019 11:09*	WG1352512
(S) 1,2-Dichloroethane-d4	*99.1*				*70.0-130*		*09/26/2019 11:09*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.84		1.73	4.00	4.29	1	09/29/2019 01:24	WG1353768
C28-C40 Oil Range	14.6		0.294	4.00	4.29	1	09/29/2019 01:24	WG1353768
(S) o-Terphenyl	*71.3*				*18.0-148*		*09/29/2019 01:24*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.7		1	09/27/2019 14:01	WG1353379

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	359		0.849	10.0	10.7	1	09/24/2019 10:34	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0232	0.100	0.107	1	09/27/2019 18:44	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*95.4*				*77.0-120*		*09/27/2019 18:44*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000427	0.00100	0.00107	1	09/26/2019 12:53	WG1352512
Toluene	U		0.00133	0.00500	0.00534	1	09/26/2019 12:53	WG1352512
Ethylbenzene	U		0.000566	0.00250	0.00267	1	09/26/2019 12:53	WG1352512
Total Xylenes	U		0.00510	0.00650	0.00694	1	09/26/2019 12:53	WG1352512
(S) Toluene-d8	*112*				*75.0-131*		*09/26/2019 12:53*	WG1352512
(S) 4-Bromofluorobenzene	*108*				*67.0-138*		*09/26/2019 12:53*	WG1352512
(S) 1,2-Dichloroethane-d4	*98.7*				*70.0-130*		*09/26/2019 12:53*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.85	J	1.72	4.00	4.27	1	09/29/2019 01:37	WG1353768
C28-C40 Oil Range	7.35		0.292	4.00	4.27	1	09/29/2019 01:37	WG1353768
(S) o-Terphenyl	*69.1*				*18.0-148*		*09/29/2019 01:37*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	09/27/2019 14:01	WG1353379

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	992		4.33	10.0	54.5	5	09/24/2019 10:43	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0236	0.100	0.109	1	09/27/2019 19:05	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.1*				*77.0-120*		*09/27/2019 19:05*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000436	0.00100	0.00109	1	09/26/2019 13:14	WG1352512
Toluene	U		0.00136	0.00500	0.00545	1	09/26/2019 13:14	WG1352512
Ethylbenzene	U		0.000578	0.00250	0.00272	1	09/26/2019 13:14	WG1352512
Total Xylenes	U		0.00521	0.00650	0.00708	1	09/26/2019 13:14	WG1352512
(S) Toluene-d8	*111*				*75.0-131*		*09/26/2019 13:14*	WG1352512
(S) 4-Bromofluorobenzene	*109*				*67.0-138*		*09/26/2019 13:14*	WG1352512
(S) 1,2-Dichloroethane-d4	*102*				*70.0-130*		*09/26/2019 13:14*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	14.1		1.75	4.00	4.36	1	09/29/2019 01:49	WG1353768
C28-C40 Oil Range	19.2		0.299	4.00	4.36	1	09/29/2019 01:49	WG1353768
(S) o-Terphenyl	*63.8*				*18.0-148*		*09/29/2019 01:49*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	09/27/2019 14:01	WG1353379

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	326		0.913	10.0	11.5	1	09/24/2019 10:53	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0252	0.100	0.116	1.01	09/27/2019 19:25	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.0*				*77.0-120*		*09/27/2019 19:25*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000459	0.00100	0.00115	1	09/26/2019 13:35	WG1352512
Toluene	U		0.00144	0.00500	0.00574	1	09/26/2019 13:35	WG1352512
Ethylbenzene	U		0.000609	0.00250	0.00287	1	09/26/2019 13:35	WG1352512
Total Xylenes	U		0.00549	0.00650	0.00747	1	09/26/2019 13:35	WG1352512
(S) Toluene-d8	*115*				*75.0-131*		*09/26/2019 13:35*	WG1352512
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/26/2019 13:35*	WG1352512
(S) 1,2-Dichloroethane-d4	*98.4*				*70.0-130*		*09/26/2019 13:35*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.31	J	1.85	4.00	4.59	1	09/29/2019 02:02	WG1353768
C28-C40 Oil Range	9.44		0.315	4.00	4.59	1	09/29/2019 02:02	WG1353768
(S) o-Terphenyl	*67.0*				*18.0-148*		*09/29/2019 02:02*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	09/27/2019 14:01	WG1353379

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	74.8		0.885	10.0	11.1	1	09/24/2019 11:02	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0241	0.100	0.111	1	09/27/2019 19:46	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*93.1*				*77.0-120*		*09/27/2019 19:46*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000445	0.00100	0.00111	1	09/26/2019 13:55	WG1352512
Toluene	U		0.00139	0.00500	0.00556	1	09/26/2019 13:55	WG1352512
Ethylbenzene	U		0.000590	0.00250	0.00278	1	09/26/2019 13:55	WG1352512
Total Xylenes	U		0.00532	0.00650	0.00723	1	09/26/2019 13:55	WG1352512
(S) Toluene-d8	*113*				*75.0-131*		*09/26/2019 13:55*	WG1352512
(S) 4-Bromofluorobenzene	*109*				*67.0-138*		*09/26/2019 13:55*	WG1352512
(S) 1,2-Dichloroethane-d4	*98.7*				*70.0-130*		*09/26/2019 13:55*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.56		1.79	4.00	4.45	1	09/29/2019 02:14	WG1353768
C28-C40 Oil Range	8.99		0.305	4.00	4.45	1	09/29/2019 02:14	WG1353768
(S) o-Terphenyl	*81.5*				*18.0-148*		*09/29/2019 02:14*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.7		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	65.8		0.848	10.0	10.7	1	09/24/2019 11:12	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0232	0.100	0.107	1	09/27/2019 20:06	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.4*				*77.0-120*		*09/27/2019 20:06*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000427	0.00100	0.00107	1	09/26/2019 14:16	WG1352512
Toluene	U		0.00133	0.00500	0.00533	1	09/26/2019 14:16	WG1352512
Ethylbenzene	U		0.000565	0.00250	0.00267	1	09/26/2019 14:16	WG1352512
Total Xylenes	U		0.00510	0.00650	0.00693	1	09/26/2019 14:16	WG1352512
(S) Toluene-d8	*116*				*75.0-131*		*09/26/2019 14:16*	WG1352512
(S) 4-Bromofluorobenzene	*103*				*67.0-138*		*09/26/2019 14:16*	WG1352512
(S) 1,2-Dichloroethane-d4	*101*				*70.0-130*		*09/26/2019 14:16*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.19	J	1.72	4.00	4.27	1	09/29/2019 02:27	WG1353768
C28-C40 Oil Range	11.5		0.292	4.00	4.27	1	09/29/2019 02:27	WG1353768
(S) o-Terphenyl	*81.4*				*18.0-148*		*09/29/2019 02:27*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.9		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	31.8	B	0.847	10.0	10.6	1	09/24/2019 11:41	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0231	0.100	0.106	1	09/27/2019 20:27	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.8*				*77.0-120*		*09/27/2019 20:27*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000426	0.00100	0.00106	1	09/26/2019 14:37	WG1352512
Toluene	U		0.00133	0.00500	0.00532	1	09/26/2019 14:37	WG1352512
Ethylbenzene	U		0.000564	0.00250	0.00266	1	09/26/2019 14:37	WG1352512
Total Xylenes	U		0.00509	0.00650	0.00692	1	09/26/2019 14:37	WG1352512
(S) Toluene-d8	*114*				*75.0-131*		*09/26/2019 14:37*	WG1352512
(S) 4-Bromofluorobenzene	*107*				*67.0-138*		*09/26/2019 14:37*	WG1352512
(S) 1,2-Dichloroethane-d4	*107*				*70.0-130*		*09/26/2019 14:37*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.26	J	1.71	4.00	4.26	1	09/29/2019 02:39	WG1353768
C28-C40 Oil Range	6.86		0.292	4.00	4.26	1	09/29/2019 02:39	WG1353768
(S) o-Terphenyl	*78.7*				*18.0-148*		*09/29/2019 02:39*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	251		0.917	10.0	11.5	1	09/24/2019 11:50	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0275	B J	0.0250	0.100	0.115	1	09/30/2019 13:14	WG1354679
(S) a,a,a-Trifluorotoluene(FID)	*95.7*				*77.0-120*		*09/30/2019 13:14*	WG1354679

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000461	0.00100	0.00115	1	09/26/2019 14:57	WG1352512
Toluene	U		0.00144	0.00500	0.00576	1	09/26/2019 14:57	WG1352512
Ethylbenzene	U		0.000611	0.00250	0.00288	1	09/26/2019 14:57	WG1352512
Total Xylenes	U		0.00551	0.00650	0.00749	1	09/26/2019 14:57	WG1352512
(S) Toluene-d8	*111*				*75.0-131*		*09/26/2019 14:57*	WG1352512
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/26/2019 14:57*	WG1352512
(S) 1,2-Dichloroethane-d4	*99.3*				*70.0-130*		*09/26/2019 14:57*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.86	4.00	4.61	1	09/29/2019 02:52	WG1353768
C28-C40 Oil Range	1.29	J	0.316	4.00	4.61	1	09/29/2019 02:52	WG1353768
(S) o-Terphenyl	*79.3*				*18.0-148*		*09/29/2019 02:52*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.2		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	2880		8.44	10.0	106	10	09/24/2019 12:00	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	J3	0.0230	0.100	0.106	1	09/27/2019 21:36	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.2*				*77.0-120*		*09/27/2019 21:36*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000425	0.00100	0.00106	1	09/26/2019 15:18	WG1352512
Toluene	U		0.00133	0.00500	0.00531	1	09/26/2019 15:18	WG1352512
Ethylbenzene	U		0.000563	0.00250	0.00265	1	09/26/2019 15:18	WG1352512
Total Xylenes	U		0.00508	0.00650	0.00690	1	09/26/2019 15:18	WG1352512
(S) Toluene-d8	*111*				*75.0-131*		*09/26/2019 15:18*	WG1352512
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*09/26/2019 15:18*	WG1352512
(S) 1,2-Dichloroethane-d4	*95.4*				*70.0-130*		*09/26/2019 15:18*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.51		1.71	4.00	4.25	1	09/29/2019 03:05	WG1353768
C28-C40 Oil Range	16.8		0.291	4.00	4.25	1	09/29/2019 03:05	WG1353768
(S) o-Terphenyl	*62.2*				*18.0-148*		*09/29/2019 03:05*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.0		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	1650		8.64	10.0	109	10	09/24/2019 12:09	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0236	0.100	0.109	1	09/27/2019 21:56	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.7*				*77.0-120*		*09/27/2019 21:56*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000435	0.00100	0.00109	1	09/26/2019 15:39	WG1352512
Toluene	U		0.00136	0.00500	0.00543	1	09/26/2019 15:39	WG1352512
Ethylbenzene	U		0.000576	0.00250	0.00272	1	09/26/2019 15:39	WG1352512
Total Xylenes	U		0.00519	0.00650	0.00706	1	09/26/2019 15:39	WG1352512
(S) Toluene-d8	*113*				*75.0-131*		*09/26/2019 15:39*	WG1352512
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/26/2019 15:39*	WG1352512
(S) 1,2-Dichloroethane-d4	*98.4*				*70.0-130*		*09/26/2019 15:39*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.97		1.75	4.00	4.35	1	09/29/2019 03:17	WG1353768
C28-C40 Oil Range	11.5		0.298	4.00	4.35	1	09/29/2019 03:17	WG1353768
(S) o-Terphenyl	*80.2*				*18.0-148*		*09/29/2019 03:17*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.1		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	70.4		0.845	10.0	10.6	1	09/24/2019 12:19	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0233	B J	0.0231	0.100	0.106	1	09/30/2019 13:34	WG1354679
(S) a,a,a-Trifluorotoluene(FID)	*97.8*				*77.0-120*		*09/30/2019 13:34*	WG1354679

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000425	0.00100	0.00106	1	09/26/2019 16:00	WG1352512
Toluene	U		0.00133	0.00500	0.00531	1	09/26/2019 16:00	WG1352512
Ethylbenzene	U		0.000563	0.00250	0.00266	1	09/26/2019 16:00	WG1352512
Total Xylenes	U		0.00508	0.00650	0.00691	1	09/26/2019 16:00	WG1352512
(S) Toluene-d8	*114*				*75.0-131*		*09/26/2019 16:00*	WG1352512
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/26/2019 16:00*	WG1352512
(S) 1,2-Dichloroethane-d4	*104*				*70.0-130*		*09/26/2019 16:00*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.71	4.00	4.25	1	09/29/2019 03:30	WG1353768
C28-C40 Oil Range	2.20	J	0.291	4.00	4.25	1	09/29/2019 03:30	WG1353768
(S) o-Terphenyl	*89.2*				*18.0-148*		*09/29/2019 03:30*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.5		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	3250		8.59	10.0	108	10	09/24/2019 12:28	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0234	0.100	0.108	1	09/30/2019 13:55	WG1354679
(S) a,a,a-Trifluorotoluene(FID)	*95.2*				*77.0-120*		*09/30/2019 13:55*	WG1354679

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000432	0.00100	0.00108	1	09/26/2019 16:20	WG1352512
Toluene	U		0.00135	0.00500	0.00540	1	09/26/2019 16:20	WG1352512
Ethylbenzene	U		0.000573	0.00250	0.00270	1	09/26/2019 16:20	WG1352512
Total Xylenes	U		0.00517	0.00650	0.00702	1	09/26/2019 16:20	WG1352512
(S) Toluene-d8	*112*				*75.0-131*		*09/26/2019 16:20*	WG1352512
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/26/2019 16:20*	WG1352512
(S) 1,2-Dichloroethane-d4	*108*				*70.0-130*		*09/26/2019 16:20*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	12.3		1.74	4.00	4.32	1	09/29/2019 03:42	WG1353768
C28-C40 Oil Range	36.4		0.296	4.00	4.32	1	09/29/2019 03:42	WG1353768
(S) o-Terphenyl	*53.0*				*18.0-148*		*09/29/2019 03:42*	WG1353768

BH-3 (2-3')
Collected date/time: 09/16/19 11:50

SAMPLE RESULTS - 14

L1142081

ONE LAB. NATIONWIDE.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	1350		4.47	10.0	56.2	5	09/24/2019 12:38	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0244	0.100	0.112	1	09/30/2019 14:50	WG1354679
(S) a,a,a-Trifluorotoluene(FID)	*94.3*				*77.0-120*		*09/30/2019 14:50*	WG1354679

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000449	0.00100	0.00112	1	09/26/2019 16:41	WG1352512
Toluene	U		0.00140	0.00500	0.00562	1	09/26/2019 16:41	WG1352512
Ethylbenzene	U		0.000595	0.00250	0.00281	1	09/26/2019 16:41	WG1352512
Total Xylenes	U		0.00537	0.00650	0.00730	1	09/26/2019 16:41	WG1352512
(S) Toluene-d8	*113*				*75.0-131*		*09/26/2019 16:41*	WG1352512
(S) 4-Bromofluorobenzene	*107*				*67.0-138*		*09/26/2019 16:41*	WG1352512
(S) 1,2-Dichloroethane-d4	*110*				*70.0-130*		*09/26/2019 16:41*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	14.8		1.81	4.00	4.49	1	09/27/2019 01:53	WG1352422
C28-C40 Oil Range	58.6		0.308	4.00	4.49	1	09/27/2019 01:53	WG1352422
(S) o-Terphenyl	*37.5*				*18.0-148*		*09/27/2019 01:53*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.8		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	1060		4.15	10.0	52.2	5	09/24/2019 13:35	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.100	0.104	1	09/28/2019 03:12	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.4*				*77.0-120*		*09/28/2019 03:12*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000418	0.00100	0.00104	1	09/26/2019 17:01	WG1352512
Toluene	U		0.00131	0.00500	0.00522	1	09/26/2019 17:01	WG1352512
Ethylbenzene	U		0.000553	0.00250	0.00261	1	09/26/2019 17:01	WG1352512
Total Xylenes	U		0.00499	0.00650	0.00679	1	09/26/2019 17:01	WG1352512
(S) Toluene-d8	*113*				*75.0-131*		*09/26/2019 17:01*	WG1352512
(S) 4-Bromofluorobenzene	*103*				*67.0-138*		*09/26/2019 17:01*	WG1352512
(S) 1,2-Dichloroethane-d4	*99.5*				*70.0-130*		*09/26/2019 17:01*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.68	4.00	4.18	1	09/26/2019 21:54	WG1352422
C28-C40 Oil Range	U		0.286	4.00	4.18	1	09/26/2019 21:54	WG1352422
(S) o-Terphenyl	*78.6*				*18.0-148*		*09/26/2019 21:54*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.5		1	09/27/2019 13:46	WG1353381

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	4510		16.7	10.0	210	20	09/24/2019 13:44	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.100	0.105	1	09/28/2019 03:32	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*94.1*				*77.0-120*		*09/28/2019 03:32*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000419	0.00100	0.00105	1	09/26/2019 17:21	WG1352512
Toluene	U		0.00131	0.00500	0.00524	1	09/26/2019 17:21	WG1352512
Ethylbenzene	U		0.000555	0.00250	0.00262	1	09/26/2019 17:21	WG1352512
Total Xylenes	U		0.00501	0.00650	0.00681	1	09/26/2019 17:21	WG1352512
(S) Toluene-d8	*113*				*75.0-131*		*09/26/2019 17:21*	WG1352512
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/26/2019 17:21*	WG1352512
(S) 1,2-Dichloroethane-d4	*106*				*70.0-130*		*09/26/2019 17:21*	WG1352512

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	9.08		1.69	4.00	4.19	1	09/27/2019 01:16	WG1352422
C28-C40 Oil Range	30.8		0.287	4.00	4.19	1	09/27/2019 01:16	WG1352422
(S) o-Terphenyl	*47.2*				*18.0-148*		*09/27/2019 01:16*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	3370		16.7	10.0	210	20	09/24/2019 13:54	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.100	0.105	1	09/28/2019 03:53	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*93.8*				*77.0-120*		*09/28/2019 03:53*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000419	0.00100	0.00105	1	09/28/2019 11:35	WG1353482
Toluene	U		0.00131	0.00500	0.00524	1	09/28/2019 11:35	WG1353482
Ethylbenzene	U		0.000555	0.00250	0.00262	1	09/28/2019 11:35	WG1353482
Total Xylenes	U		0.00501	0.00650	0.00681	1	09/28/2019 11:35	WG1353482
(S) Toluene-d8	*114*				*75.0-131*		*09/28/2019 11:35*	WG1353482
(S) 4-Bromofluorobenzene	*107*				*67.0-138*		*09/28/2019 11:35*	WG1353482
(S) 1,2-Dichloroethane-d4	*96.3*				*70.0-130*		*09/28/2019 11:35*	WG1353482

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	10.9		1.69	4.00	4.19	1	09/27/2019 01:28	WG1352422
C28-C40 Oil Range	37.1		0.287	4.00	4.19	1	09/27/2019 01:28	WG1352422
(S) o-Terphenyl	*46.7*				*18.0-148*		*09/27/2019 01:28*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.1		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	2210		8.37	10.0	105	10	09/24/2019 14:03	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0228	0.100	0.105	1	09/28/2019 08:45	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*93.8*				*77.0-120*		*09/28/2019 08:45*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000421	0.00100	0.00105	1	09/26/2019 21:04	WG1352625
Toluene	U		0.00132	0.00500	0.00526	1	09/26/2019 21:04	WG1352625
Ethylbenzene	U		0.000558	0.00250	0.00263	1	09/26/2019 21:04	WG1352625
Total Xylenes	U		0.00503	0.00650	0.00684	1	09/26/2019 21:04	WG1352625
(S) Toluene-d8	*114*				*75.0-131*		*09/26/2019 21:04*	WG1352625
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*09/26/2019 21:04*	WG1352625
(S) 1,2-Dichloroethane-d4	*109*				*70.0-130*		*09/26/2019 21:04*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.69	4.00	4.21	1	09/26/2019 22:07	WG1352422
C28-C40 Oil Range	U		0.288	4.00	4.21	1	09/26/2019 22:07	WG1352422
(S) o-Terphenyl	*73.6*				*18.0-148*		*09/26/2019 22:07*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	2400		8.52	10.0	107	10	09/24/2019 14:13	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0233	0.100	0.107	1	09/28/2019 09:06	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*93.0*				*77.0-120*		*09/28/2019 09:06*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000429	0.00100	0.00107	1	09/26/2019 21:25	WG1352625
Toluene	U		0.00134	0.00500	0.00536	1	09/26/2019 21:25	WG1352625
Ethylbenzene	U		0.000568	0.00250	0.00268	1	09/26/2019 21:25	WG1352625
Total Xylenes	U		0.00512	0.00650	0.00697	1	09/26/2019 21:25	WG1352625
(S) Toluene-d8	*111*				*75.0-131*		*09/26/2019 21:25*	WG1352625
(S) 4-Bromofluorobenzene	*102*				*67.0-138*		*09/26/2019 21:25*	WG1352625
(S) 1,2-Dichloroethane-d4	*103*				*70.0-130*		*09/26/2019 21:25*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	9.70		1.73	4.00	4.29	1	09/27/2019 02:06	WG1352422
C28-C40 Oil Range	44.4		0.294	4.00	4.29	1	09/27/2019 02:06	WG1352422
(S) o-Terphenyl	*48.6*				*18.0-148*		*09/27/2019 02:06*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.9		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	1470		4.28	10.0	53.8	5	09/24/2019 14:32	WG1350262

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0233	0.100	0.108	1	09/28/2019 09:26	WG1353634
(S) a,a,a-Trifluorotoluene(FID)	*93.3*				*77.0-120*		*09/28/2019 09:26*	WG1353634

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000430	0.00100	0.00108	1	09/26/2019 21:45	WG1352625
Toluene	U		0.00135	0.00500	0.00538	1	09/26/2019 21:45	WG1352625
Ethylbenzene	U		0.000570	0.00250	0.00269	1	09/26/2019 21:45	WG1352625
Total Xylenes	U		0.00514	0.00650	0.00699	1	09/26/2019 21:45	WG1352625
(S) Toluene-d8	*113*				*75.0-131*		*09/26/2019 21:45*	WG1352625
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/26/2019 21:45*	WG1352625
(S) 1,2-Dichloroethane-d4	*107*				*70.0-130*		*09/26/2019 21:45*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	14.4		1.73	4.00	4.30	1	09/27/2019 02:19	WG1352422
C28-C40 Oil Range	62.3		0.295	4.00	4.30	1	09/27/2019 02:19	WG1352422
(S) o-Terphenyl	*47.7*				*18.0-148*		*09/27/2019 02:19*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	3340		8.85	10.0	111	10	09/24/2019 00:14	WG1350445

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0242	0.100	0.111	1	09/27/2019 21:55	WG1354028
(S) a,a,a-Trifluorotoluene(FID)	*99.7*				*77.0-120*		*09/27/2019 21:55*	WG1354028

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000445	0.00100	0.00111	1	09/26/2019 22:05	WG1352625
Toluene	U		0.00139	0.00500	0.00556	1	09/26/2019 22:05	WG1352625
Ethylbenzene	U		0.000590	0.00250	0.00278	1	09/26/2019 22:05	WG1352625
Total Xylenes	U		0.00532	0.00650	0.00723	1	09/26/2019 22:05	WG1352625
(S) Toluene-d8	*111*				*75.0-131*		*09/26/2019 22:05*	WG1352625
(S) 4-Bromofluorobenzene	*100*				*67.0-138*		*09/26/2019 22:05*	WG1352625
(S) 1,2-Dichloroethane-d4	*113*				*70.0-130*		*09/26/2019 22:05*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.39		1.79	4.00	4.45	1	09/26/2019 23:47	WG1352422
C28-C40 Oil Range	23.5		0.305	4.00	4.45	1	09/26/2019 23:47	WG1352422
(S) o-Terphenyl	*47.2*				*18.0-148*		*09/26/2019 23:47*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.0		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	44.0		0.819	10.0	10.3	1	09/24/2019 00:23	WG1350445

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0224	0.100	0.103	1	09/27/2019 22:16	WG1354028
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*09/27/2019 22:16*	WG1354028

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000412	0.00100	0.00103	1	09/26/2019 22:26	WG1352625
Toluene	U		0.00129	0.00500	0.00515	1	09/26/2019 22:26	WG1352625
Ethylbenzene	U		0.000546	0.00250	0.00258	1	09/26/2019 22:26	WG1352625
Total Xylenes	U		0.00493	0.00650	0.00670	1	09/26/2019 22:26	WG1352625
(S) Toluene-d8	*114*				*75.0-131*		*09/26/2019 22:26*	WG1352625
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/26/2019 22:26*	WG1352625
(S) 1,2-Dichloroethane-d4	*107*				*70.0-130*		*09/26/2019 22:26*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.66	4.00	4.12	1	09/29/2019 03:55	WG1353768
C28-C40 Oil Range	7.08		0.282	4.00	4.12	1	09/29/2019 03:55	WG1353768
(S) o-Terphenyl	*83.8*				*18.0-148*		*09/29/2019 03:55*	WG1353768

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.0		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	158		0.837	10.0	10.5	1	09/24/2019 00:33	WG1350445

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0229	0.100	0.105	1	09/27/2019 22:36	WG1354028
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*09/27/2019 22:36*	WG1354028

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000421	0.00100	0.00105	1	09/26/2019 22:46	WG1352625
Toluene	U		0.00132	0.00500	0.00527	1	09/26/2019 22:46	WG1352625
Ethylbenzene	U		0.000558	0.00250	0.00263	1	09/26/2019 22:46	WG1352625
Total Xylenes	U		0.00503	0.00650	0.00684	1	09/26/2019 22:46	WG1352625
(S) Toluene-d8	*112*				*75.0-131*		*09/26/2019 22:46*	WG1352625
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/26/2019 22:46*	WG1352625
(S) 1,2-Dichloroethane-d4	*110*				*70.0-130*		*09/26/2019 22:46*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.92	J	1.70	4.00	4.21	1	09/27/2019 00:38	WG1352422
C28-C40 Oil Range	8.76		0.289	4.00	4.21	1	09/27/2019 00:38	WG1352422
(S) o-Terphenyl	*62.5*				*18.0-148*		*09/27/2019 00:38*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.9		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	14.6	B	0.875	10.0	11.0	1	09/24/2019 19:52	WG1350714

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0239	0.100	0.110	1	09/27/2019 22:57	WG1354028
(S) a,a,a-Trifluorotoluene(FID)	*103*				*77.0-120*		*09/27/2019 22:57*	WG1354028

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000440	0.00100	0.00110	1	09/26/2019 23:07	WG1352625
Toluene	U		0.00138	0.00500	0.00550	1	09/26/2019 23:07	WG1352625
Ethylbenzene	U		0.000583	0.00250	0.00275	1	09/26/2019 23:07	WG1352625
Total Xylenes	U		0.00526	0.00650	0.00715	1	09/26/2019 23:07	WG1352625
(S) Toluene-d8	*115*				*75.0-131*		*09/26/2019 23:07*	WG1352625
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/26/2019 23:07*	WG1352625
(S) 1,2-Dichloroethane-d4	*103*				*70.0-130*		*09/26/2019 23:07*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.77	4.00	4.40	1	09/26/2019 23:35	WG1352422
C28-C40 Oil Range	U		0.302	4.00	4.40	1	09/26/2019 23:35	WG1352422
(S) o-Terphenyl	*71.7*				*18.0-148*		*09/26/2019 23:35*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.0		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	104		0.811	10.0	10.2	1	09/24/2019 20:10	WG1350714

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0224	0.100	0.103	1.01	09/27/2019 23:17	WG1354028
(S) a,a,a-Trifluorotoluene(FID)	*103*				*77.0-120*		*09/27/2019 23:17*	WG1354028

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000408	0.00100	0.00102	1	09/26/2019 23:27	WG1352625
Toluene	U		0.00128	0.00500	0.00510	1	09/26/2019 23:27	WG1352625
Ethylbenzene	U		0.000541	0.00250	0.00255	1	09/26/2019 23:27	WG1352625
Total Xylenes	U		0.00488	0.00650	0.00663	1	09/26/2019 23:27	WG1352625
(S) Toluene-d8	*112*				*75.0-131*		*09/26/2019 23:27*	WG1352625
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*09/26/2019 23:27*	WG1352625
(S) 1,2-Dichloroethane-d4	*112*				*70.0-130*		*09/26/2019 23:27*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.90	J	1.64	4.00	4.08	1	09/27/2019 01:03	WG1352422
C28-C40 Oil Range	13.2		0.280	4.00	4.08	1	09/27/2019 01:03	WG1352422
(S) o-Terphenyl	*62.2*				*18.0-148*		*09/27/2019 01:03*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.1		1	09/27/2019 13:32	WG1353382

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	184		0.802	10.0	10.1	1	09/24/2019 20:20	WG1350714

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.100	0.101	1	09/27/2019 23:38	WG1354028
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*09/27/2019 23:38*	WG1354028

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000403	0.00100	0.00101	1	09/26/2019 23:47	WG1352625
Toluene	U		0.00126	0.00500	0.00504	1	09/26/2019 23:47	WG1352625
Ethylbenzene	U		0.000535	0.00250	0.00252	1	09/26/2019 23:47	WG1352625
Total Xylenes	U		0.00482	0.00650	0.00656	1	09/26/2019 23:47	WG1352625
(S) Toluene-d8	*115*				*75.0-131*		*09/26/2019 23:47*	WG1352625
(S) 4-Bromofluorobenzene	*108*				*67.0-138*		*09/26/2019 23:47*	WG1352625
(S) 1,2-Dichloroethane-d4	*106*				*70.0-130*		*09/26/2019 23:47*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.12		1.62	4.00	4.03	1	09/27/2019 01:41	WG1352422
C28-C40 Oil Range	29.4		0.276	4.00	4.03	1	09/27/2019 01:41	WG1352422
(S) o-Terphenyl	*57.9*				*18.0-148*		*09/27/2019 01:41*	WG1352422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.2		1	09/30/2019 07:58	WG1353383

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	750		0.845	10.0	10.6	1	09/24/2019 20:29	WG1350714

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0233	0.100	0.107	1.01	09/28/2019 08:11	WG1353697
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*09/28/2019 08:11*	WG1353697

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000425	0.00100	0.00106	1	09/27/2019 00:08	WG1352625
Toluene	U		0.00133	0.00500	0.00531	1	09/27/2019 00:08	WG1352625
Ethylbenzene	U		0.000563	0.00250	0.00266	1	09/27/2019 00:08	WG1352625
Total Xylenes	U		0.00508	0.00650	0.00690	1	09/27/2019 00:08	WG1352625
(S) Toluene-d8	*110*				*75.0-131*		*09/27/2019 00:08*	WG1352625
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*09/27/2019 00:08*	WG1352625
(S) 1,2-Dichloroethane-d4	*108*				*70.0-130*		*09/27/2019 00:08*	WG1352625

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.71	4.00	4.25	1	09/26/2019 22:57	WG1352422
C28-C40 Oil Range	0.649	J	0.291	4.00	4.25	1	09/26/2019 22:57	WG1352422
(S) o-Terphenyl	*72.2*				*18.0-148*		*09/26/2019 22:57*	WG1352422

Method Blank (MB)

(MB) R3455478-1 09/27/19 14:01

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1142081-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1142081-02 09/27/19 14:01 • (DUP) R3455478-3 09/27/19 14:01

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.3	95.7	1	2.55		10

Laboratory Control Sample (LCS)

(LCS) R3455478-2 09/27/19 14:01

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

Method Blank (MB)

(MB) R3455477-1 09/27/19 13:46

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1142081-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1142081-13 09/27/19 13:46 • (DUP) R3455477-3 09/27/19 13:46

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.5	93.1	1	0.605		10

Laboratory Control Sample (LCS)

(LCS) R3455477-2 09/27/19 13:46

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

Method Blank (MB)

(MB) R3455474-1 09/27/19 13:32

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1142081-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1142081-24 09/27/19 13:32 • (DUP) R3455474-3 09/27/19 13:32

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	90.9	89.9	1	1.08		10

Laboratory Control Sample (LCS)

(LCS) R3455474-2 09/27/19 13:32

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

Method Blank (MB)

(MB) R3455995-1 09/30/19 07:58

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1142087-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1142087-06 09/30/19 07:58 • (DUP) R3455995-3 09/30/19 07:58

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.6	93.8	1	0.173		10

Laboratory Control Sample (LCS)

(LCS) R3455995-2 09/30/19 07:58

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

Method Blank (MB)

(MB) R3454081-1 09/24/19 09:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	4.18	J	0.795	10.0

L1142081-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1142081-01 09/24/19 10:06 • (DUP) R3454081-3 09/24/19 10:15

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	110	112	1	1.90		20

L1142081-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1142081-19 09/24/19 14:13 • (DUP) R3454081-6 09/24/19 14:22

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2400	2290	10	4.54		20

Laboratory Control Sample (LCS)

(LCS) R3454081-2 09/24/19 09:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	204	102	90.0-110	

L1142081-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142081-15 09/24/19 12:47 • (MS) R3454081-4 09/24/19 12:57 • (MSD) R3454081-5 09/24/19 13:06

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	522	1070	1510	1490	84.4	80.6	1	80.0-120	E	E	1.33	20

Method Blank (MB)

(MB) R3453792-1 09/23/19 19:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	3.51	J	0.795	10.0

L1141708-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1141708-19 09/23/19 20:16 • (DUP) R3453792-3 09/23/19 20:25

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	88.0	97.0	1	9.74		20

L1141896-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1141896-04 09/23/19 22:48 • (DUP) R3453792-6 09/23/19 22:58

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2760	2750	10	0.521		20

Laboratory Control Sample (LCS)

(LCS) R3453792-2 09/23/19 19:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	216	108	90.0-110	

L1141779-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1141779-13 09/23/19 20:44 • (MS) R3453792-4 09/23/19 20:54 • (MSD) R3453792-5 09/23/19 21:03

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	500	8.47	555	526	109	103	1	80.0-120			5.42	20

Method Blank (MB)

(MB) R3454194-1 09/24/19 19:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	3.02	J	0.795	10.0

L1142081-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1142081-24 09/24/19 19:52 • (DUP) R3454194-3 09/24/19 20:00

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	14.6	14.1	1	2.92		20

L1142087-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1142087-16 09/24/19 23:59 • (DUP) R3454194-6 09/25/19 00:08

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	69.7	69.5	1	0.292		20

Laboratory Control Sample (LCS)

(LCS) R3454194-2 09/24/19 19:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	218	109	90.0-110	

L1142087-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142087-05 09/24/19 21:36 • (MS) R3454194-4 09/24/19 21:45 • (MSD) R3454194-5 09/24/19 21:55

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	500	25.4	554	549	106	105	1	80.0-120			0.987	20

Method Blank (MB)

(MB) R3455935-1 09/27/19 12:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0466	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.4*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3455935-2 09/27/19 14:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.16	93.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*104*	*77.0-120*	

L1142081-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142081-10 09/27/19 21:36 • (MS) R3455935-3 09/28/19 09:47 • (MSD) R3455935-4 09/28/19 10:07

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.84	U	2.06	1.46	35.2	25.0	1	10.0-151		J3	33.9	28
(S) a,a,a-Trifluorotoluene(FID)					*88.2*	*88.2*		*77.0-120*				

Method Blank (MB)

(MB) R3455677-2 09/28/19 03:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*

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

(LCS) R3455677-1 09/28/19 03:03 • (LCSD) R3455677-5 09/28/19 11:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	6.36	6.10	116	111	72.0-127			4.14	20
(S) a,a,a-Trifluorotoluene(FID)				*111*	*110*	*77.0-120*				

L1142072-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142072-06 09/28/19 07:50 • (MS) R3455677-3 09/28/19 11:15 • (MSD) R3455677-4 09/28/19 11:35

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	ND	116	121	84.1	87.7	25	10.0-151			4.20	28
(S) a,a,a-Trifluorotoluene(FID)					*107*	*107*		*77.0-120*				

Method Blank (MB)

(MB) R3455560-3 09/27/19 14:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3455560-2 09/27/19 14:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.01	109	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*109*	*77.0-120*	

Method Blank (MB)

(MB) R3456148-3 09/30/19 10:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0289	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*94.1*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3456148-2 09/30/19 10:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.81	87.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*99.1*	*77.0-120*	

Method Blank (MB)

(MB) R3454858-3 09/26/19 07:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*113*			*75.0-131*
(S) 4-Bromofluorobenzene	*110*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*

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

(LCS) R3454858-1 09/26/19 06:18 • (LCSD) R3454858-2 09/26/19 06:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.0929	0.0884	74.3	70.7	70.0-123			4.93	20
Ethylbenzene	0.125	0.117	0.108	93.6	86.8	74.0-126			7.56	20
Toluene	0.125	0.115	0.110	91.7	88.0	75.0-121			4.10	20
Xylenes, Total	0.375	0.310	0.314	82.7	83.7	72.0-127			1.28	20
(S) Toluene-d8				*112*	*110*	*75.0-131*				
(S) 4-Bromofluorobenzene				*106*	*107*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*96.0*	*97.4*	*70.0-130*				

Method Blank (MB)

(MB) R3455303-2 09/26/19 20:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*117*			*75.0-131*
(S) 4-Bromofluorobenzene	*105*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3455303-1 09/26/19 19:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.0989	79.2	70.0-123	
Ethylbenzene	0.125	0.112	90.0	74.0-126	
Toluene	0.125	0.118	94.2	75.0-121	
Xylenes, Total	0.375	0.319	85.1	72.0-127	
(S) Toluene-d8			*109*	*75.0-131*	
(S) 4-Bromofluorobenzene			*104*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*113*	*70.0-130*	

L1142081-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142081-18 09/26/19 21:04 • (MS) R3455303-3 09/27/19 05:14 • (MSD) R3455303-4 09/27/19 05:35

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.132	U	0.0805	0.0939	61.2	71.4	1	10.0-149			15.3	37
Ethylbenzene	0.132	U	0.103	0.125	78.7	94.9	1	10.0-160			18.7	38
Toluene	0.132	U	0.103	0.119	78.5	90.3	1	10.0-156			14.0	38
Xylenes, Total	0.395	U	0.281	0.310	71.2	78.7	1	10.0-160			9.96	38
(S) Toluene-d8					*113*	*115*		*75.0-131*				
(S) 4-Bromofluorobenzene					*104*	*102*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*95.0*	*99.6*		*70.0-130*				

Method Blank (MB)

(MB) R3455688-2 09/28/19 10:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*114*			*75.0-131*
(S) 4-Bromofluorobenzene	*105*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3455688-1 09/28/19 09:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.0979	78.3	70.0-123	
Ethylbenzene	0.125	0.126	101	74.0-126	
Toluene	0.125	0.120	95.8	75.0-121	
Xylenes, Total	0.375	0.354	94.4	72.0-127	
(S) Toluene-d8			*113*	*75.0-131*	
(S) 4-Bromofluorobenzene			*105*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*101*	*70.0-130*	

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

Method Blank (MB)

(MB) R3455190-1 09/26/19 21:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*73.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3455190-2 09/26/19 21:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.3	80.6	50.0-150	
(S) o-Terphenyl			*78.5*	*18.0-148*	

Method Blank (MB)

(MB) R3455615-1 09/29/19 00:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*90.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3455615-2 09/29/19 00:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	42.1	84.2	50.0-150	
(S) o-Terphenyl			*81.8*	*18.0-148*	

L1142081-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142081-01 09/29/19 00:46 • (MS) R3455615-3 09/29/19 00:59 • (MSD) R3455615-4 09/29/19 01:11

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	52.4	4.75	36.4	43.8	60.3	74.8	1	50.0-150			18.6	20
(S) o-Terphenyl					*49.2*	*57.5*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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.

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 is the 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.

State Accreditations

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

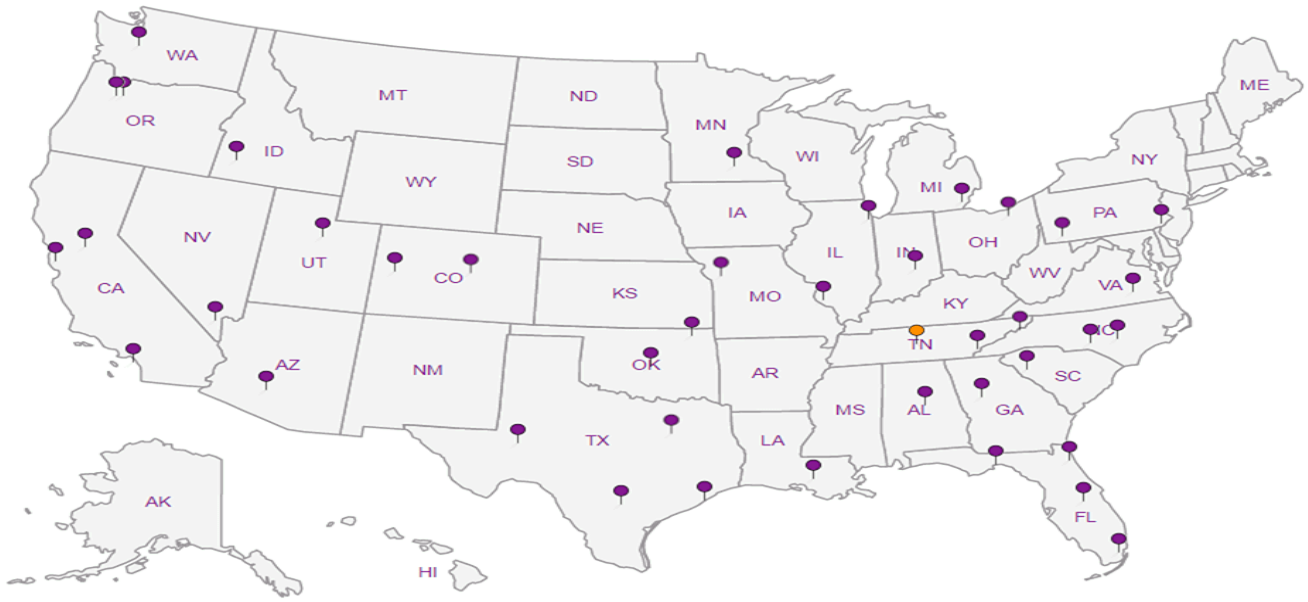
Third Party Federal Accreditations

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

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

Our Locations

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



Analysis Request of Chain of Custody Record

Page : 1 of 4

Tetra Tech, Inc.

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

B247

Client Name:	Conoco Phillips	**Site Manager:**	Chrisian Llull
Project Name:	COP VGEU 19-01		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	

Comments: Run deeper samples if GRO+DRO exceeds 100 mg/kg or if benzene exceeds 10 mg/kg or if total BTEX exceeds 50 mg/kg or if chlorides exceed 600 mg/kg.

COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-01	BH-1 (0'- 1')	9/16/2019	1000		X				X			1	N	X		X												X						
02	BH-1 (2'- 3')	9/16/2019	1005		X				X			1	N	X		X												X						
03	BH-1 (4'- 5')	9/16/2019	1010		X				X			1	N	X		X												X						
	BH-1 (6'- 7')	9/16/2019	1020		X				X			1	N																					X
04	BH-2 (0'- 1')	9/16/2019	1030		X				X			1	N	X		X												X						
05	BH-2 (2'- 3')	9/16/2019	1035		X				X			1	N	X		X												X						
06	BH-2 (4'- 5')	9/16/2019	1040		X				X			1	N	X		X												X						
07	BH-3 (0'- 1')	9/16/2019	1050		X				X			1	N	X		X												X						
08	BH-3 (2'- 3')	9/16/2019	1055		X				X			1	N	X		X												X						
09	BH-3 (4'- 5')	9/16/2019	1100		X				X			1	N	X		X												X						

	Date:	Time:		Date:	Time:
Relinquished by:	9-20-19	13:00	Received by:	9.20.19	13:00
Relinquished by:	9.20.19	15:30	Received by:	9.20.19	15:30
Relinquished by:			Received by:	9/21/19	8:30

LAB USE ONLY

Sample Temperature

3.0+0.3=3.3c

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

Page : 2 of 4

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Chrisian Llull
Project Name:	COP VGEU 19-01		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	J. Llull

Comments: Run deeper samples if GRO+DRO exceeds 100 mg/kg or if benzene exceeds 10 mg/kg or if total BTEX exceeds 50 mg/kg or if chlorides exceed 600 mg/kg.

COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
10	BH-4 (0'- 1')	9/16/2019	1120		X				X			1	N	X		X												X						
11	BH-4 (2'- 3')	9/16/2019	1125		X				X			1	N	X		X												X						
12	BH-4 (4'- 5')	9/16/2019	1130		X				X			1	N	X		X												X						
13	BH-5 (0'- 1')	9/16/2019	1145		X				X			1	N	X		X												X						
14	BH-5 (2'- 3')	9/16/2019	1150		X				X			1	N	X		X												X						
15	BH-5 (4'- 5')	9/16/2019	1155		X				X			1	N	X		X												X						
	BH-5 (6'- 7')	9/16/2019	1200		X				X			1	N																					X
	BH-5 (9'- 10')	9/16/2019	1210		X				X			1	N																					X
	BH-5 (14'- 15')	9/16/2019	1225		X				X			1	N																					X
	BH-5 (19'- 20')	9/16/2019	1240		X				X			1	N																					X

Relinquished by: J. Llull	Date: 9-2019	Time: 13:00	Received by: [signature]
Relinquished by: [signature]	Date: 9.20	Time: 15:30	Received by: [signature]
Relinquished by:	Date:	Time:	Received by: [signature]

Date: 9.20 Time: 13:30

Date: 9.20 Time: 1530

Date: 9/21/19 Time: 8:30

LAB USE ONLY

Sample Temperature: 3+0=3.2c

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

Page : 3 of 4

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Chrisian Llull
Project Name:	COP VGEU 19-01		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	

Comments: Run deeper samples if GRO+DRO exceeds 100 mg/kg or if benzene exceeds 10 mg/kg or if total BTEX exceeds 50 mg/kg or if chlorides exceed 600 mg/kg.

COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2019)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
	BH-5 (24'- 25')	9/16/2019	1255		X				X			1	N																					X
	BH-5 (29'- 30')	9/16/2019	1310		X				X			1	N																					X
16	BH-6 (0'- 1')	9/16/2019	1330		X				X			1	N	X		X												X						
17	BH-6 (2'- 3')	9/16/2019	1340		X				X			1	N	X		X												X						
18	BH-6 (4'- 5')	9/16/2019	1350		X				X			1	N	X		X												X						
	BH-6 (6'- 7')	9/16/2019	1400		X				X			1	N																					X
	BH-6 (9'- 10')	9/16/2019	1410		X				X			1	N																					X
19	BH-7 (0'- 1')	9/16/2019	1430		X				X			1	N	X		X												X						
20	BH-7 (2'- 3')	9/16/2019	1435		X				X			1	N	X		X												X						
21	BH-7 (4'- 5')	9/16/2019	1440		X				X			1	N	X		X												X						

Relinquished by:	Date: 9-20-19	Time: 13:00	Received by: Date: 9209 Time: 13:00
Relinquished by:	Date: 9.20.19	Time: 15:30	Received by: SwA Date: 9.20 Time: 15:30
Relinquished by:	Date:	Time:	Received by: Date: 9/21/19 Time: 8:30

LAB USE ONLY

Sample Temperature

3.0 3.2

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

Page : 4 of 4

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Chrisian Llull
Project Name:	COP VGEU 19-01		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	J. Lyles

Comments: Run deeper samples if GRO+DRO exceeds 100 mg/kg or if benzene exceeds 10 mg/kg or if total BTEX exceeds 50 mg/kg or if chlorides exceed 600 mg/kg.

COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
	BH-7 (6'- 7')	9/16/2019	1445		X				X			1	N																					X
	BH-7 (9'- 10')	9/16/2019	1450		X				X			1	N																					X
22	BH-8 (0'- 1')	9/16/2019	1500		X				X			1	N	X		X												X						
23	BH-8 (2'- 3')	9/16/2019	1510		X				X			1	N	X		X												X						
24	BH-8 (4'- 5')	9/16/2019	1520		X				X			1	N	X		X												X						
	BH-8 (6'- 7')	9/16/2019	1530		X				X			1	N																					X
25	BH-9 (0'- 1')	9/16/2019	1545		X				X			1	N	X		X												X						
26	BH-9 (2'- 3')	9/16/2019	1550		X				X			1	N	X		X												X						
27	BH-9 (4'- 5')	9/16/2019	1555		X				X			1	N	X		X												X						
	BH-9 (6'- 7')	9/16/2019	1600		X				X			1	N																					X

Relinquished by: J Lyles	Date: 9-20-19	Time: 13:00	Received by:	Date: 9.20.19	Time:
Relinquished by:	Date: 9.20.19	Time: 15:30	Received by:	Date: 9.20.19	Time: 15:30
Relinquished by:	Date:	Time:	Received by:	Date: 9/21/19	Time: 8:30

LAB USE ONLY

Sample Temperature: 3+0=3.2

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: COPTETRA	1142081	
Cooler Received/Opened On: 9/21/19 Temperature:	3.0	
Received By: Paul Minnich		
Signature:		

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

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 21, 2019

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1148640
Samples Received:	09/21/2019
Project Number:	212C-MS-01840
Description:	COP VGEU 19-01

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

Entire Report Reviewed By:

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.

TABLE OF CONTENTS

BH-5 (14-15') L1148640-01 Solid

Collected by: JT | Collected date/time: 09/16/19 12:25 | Received date/time: 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1363643	1	10/16/19 19:03	10/16/19 19:11	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1361375	10	10/14/19 00:10	10/14/19 09:18	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1362118	1	10/11/19 09:57	10/13/19 22:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1361770	1	10/11/19 09:57	10/12/19 12:00	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1362447	1	10/14/19 12:31	10/14/19 20:33	KME	Mt. Juliet, TN

BH-5 (24-25') L1148640-02 Solid

Collected by: JT | Collected date/time: 09/16/19 12:55 | Received date/time: 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1363448	1	10/15/19 17:22	10/15/19 17:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1361375	1	10/14/19 00:10	10/14/19 09:35	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1362118	1	10/11/19 09:57	10/13/19 22:43	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1361770	1	10/11/19 09:57	10/12/19 12:20	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1362447	1	10/14/19 12:31	10/14/19 20:46	KME	Mt. Juliet, TN

BH-5 (29-30') L1148640-03 Solid

Collected by: JT | Collected date/time: 09/16/19 13:10 | Received date/time: 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1363448	1	10/15/19 17:22	10/15/19 17:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1361375	1	10/14/19 00:10	10/14/19 09:51	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1362118	1	10/11/19 09:57	10/13/19 23:07	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1361770	1	10/11/19 09:57	10/12/19 12:41	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1362447	1	10/14/19 12:31	10/14/19 20:59	KME	Mt. Juliet, TN

BH-6 (6-7') L1148640-04 Solid

Collected by: JT | Collected date/time: 09/16/19 14:00 | Received date/time: 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1363448	1	10/15/19 17:22	10/15/19 17:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1361375	20	10/14/19 00:10	10/14/19 10:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1362118	1	10/11/19 09:57	10/13/19 23:54	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1361770	1	10/11/19 09:57	10/12/19 13:01	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1362447	1	10/14/19 12:31	10/14/19 21:11	KME	Mt. Juliet, TN

BH-7 (6-7') L1148640-05 Solid

Collected by: JT | Collected date/time: 09/16/19 14:45 | Received date/time: 09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1363448	1	10/15/19 17:22	10/15/19 17:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1361375	10	10/14/19 00:10	10/14/19 10:24	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1362118	1	10/11/19 09:57	10/14/19 00:18	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1361770	1	10/11/19 09:57	10/12/19 13:22	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1362447	1	10/14/19 12:31	10/15/19 11:10	TJD	Mt. Juliet, TN

BH-9 (6-7') L1148640-06 Solid

			Collected by	Collected date/time	Received date/time
			JT	09/16/19 16:00	09/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1363448	1	10/15/19 17:22	10/15/19 17:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1361375	1	10/14/19 00:10	10/14/19 10:41	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1362118	1	10/11/19 09:57	10/14/19 00:42	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1361770	1	10/11/19 09:57	10/12/19 13:42	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1362447	1	10/14/19 12:31	10/14/19 21:24	KME	Mt. Juliet, TN

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

Chris McCord
Project Manager

BH-3 (14-15')
Collected date/time: 09/16/19 12:25

SAMPLE RESULTS - 01
L1148640

ONE LAB. NATIONWIDE.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	10/16/2019 19:11	WG1363643

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	3020		8.61	10.0	108	10	10/14/2019 09:18	WG1361375

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	T8	0.0235	0.100	0.108	1	10/13/2019 22:19	WG1362118
(S) a,a,a-Trifluorotoluene(FID)	*94.5*				*77.0-120*		*10/13/2019 22:19*	WG1362118

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U	T8	0.000433	0.00100	0.00108	1	10/12/2019 12:00	WG1361770
Toluene	0.00531	J T8	0.00135	0.00500	0.00542	1	10/12/2019 12:00	WG1361770
Ethylbenzene	0.00135	J T8	0.000574	0.00250	0.00271	1	10/12/2019 12:00	WG1361770
Total Xylenes	U	T8	0.00518	0.00650	0.00704	1	10/12/2019 12:00	WG1361770
(S) Toluene-d8	*104*				*75.0-131*		*10/12/2019 12:00*	WG1361770
(S) 4-Bromofluorobenzene	*103*				*67.0-138*		*10/12/2019 12:00*	WG1361770
(S) 1,2-Dichloroethane-d4	*99.9*				*70.0-130*		*10/12/2019 12:00*	WG1361770

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U	T8	1.74	4.00	4.33	1	10/14/2019 20:33	WG1362447
C28-C40 Oil Range	U	T8	0.297	4.00	4.33	1	10/14/2019 20:33	WG1362447
(S) o-Terphenyl	*70.8*				*18.0-148*		*10/14/2019 20:33*	WG1362447

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.5		1	10/15/2019 17:33	WG1363448

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	260		0.824	10.0	10.4	1	10/14/2019 09:35	WG1361375

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	T8	0.0225	0.100	0.104	1	10/13/2019 22:43	WG1362118
(S) a,a,a-Trifluorotoluene(FID)	*96.4*				*77.0-120*		*10/13/2019 22:43*	WG1362118

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U	T8	0.000414	0.00100	0.00104	1	10/12/2019 12:20	WG1361770
Toluene	0.00537	T8	0.00129	0.00500	0.00518	1	10/12/2019 12:20	WG1361770
Ethylbenzene	U	T8	0.000549	0.00250	0.00259	1	10/12/2019 12:20	WG1361770
Total Xylenes	U	T8	0.00495	0.00650	0.00673	1	10/12/2019 12:20	WG1361770
(S) Toluene-d8	*103*				*75.0-131*		*10/12/2019 12:20*	WG1361770
(S) 4-Bromofluorobenzene	*102*				*67.0-138*		*10/12/2019 12:20*	WG1361770
(S) 1,2-Dichloroethane-d4	*98.8*				*70.0-130*		*10/12/2019 12:20*	WG1361770

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U	T8	1.67	4.00	4.14	1	10/14/2019 20:46	WG1362447
C28-C40 Oil Range	U	T8	0.284	4.00	4.14	1	10/14/2019 20:46	WG1362447
(S) o-Terphenyl	*79.5*				*18.0-148*		*10/14/2019 20:46*	WG1362447

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.8		1	10/15/2019 17:33	WG1363448

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	138		0.830	10.0	10.4	1	10/14/2019 09:51	WG1361375

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	T8	0.0227	0.100	0.104	1	10/13/2019 23:07	WG1362118
(S) a,a,a-Trifluorotoluene(FID)	*95.0*				*77.0-120*		*10/13/2019 23:07*	WG1362118

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U	T8	0.000418	0.00100	0.00104	1	10/12/2019 12:41	WG1361770
Toluene	0.00478	J T8	0.00130	0.00500	0.00522	1	10/12/2019 12:41	WG1361770
Ethylbenzene	U	T8	0.000553	0.00250	0.00261	1	10/12/2019 12:41	WG1361770
Total Xylenes	U	T8	0.00499	0.00650	0.00679	1	10/12/2019 12:41	WG1361770
(S) Toluene-d8	*103*				*75.0-131*		*10/12/2019 12:41*	WG1361770
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*10/12/2019 12:41*	WG1361770
(S) 1,2-Dichloroethane-d4	*98.8*				*70.0-130*		*10/12/2019 12:41*	WG1361770

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U	T8	1.68	4.00	4.18	1	10/14/2019 20:59	WG1362447
C28-C40 Oil Range	U	T8	0.286	4.00	4.18	1	10/14/2019 20:59	WG1362447
(S) o-Terphenyl	*82.9*				*18.0-148*		*10/14/2019 20:59*	WG1362447

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.4		1	10/15/2019 17:33	WG1363448

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	6500		16.9	10.0	212	20	10/14/2019 10:08	WG1361375

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	T8	0.0230	0.100	0.106	1	10/13/2019 23:54	WG1362118
(S) a,a,a-Trifluorotoluene(FID)	*93.3*				*77.0-120*		*10/13/2019 23:54*	WG1362118

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U	T8	0.000424	0.00100	0.00106	1	10/12/2019 13:01	WG1361770
Toluene	0.00498	J T8	0.00132	0.00500	0.00530	1	10/12/2019 13:01	WG1361770
Ethylbenzene	U	T8	0.000562	0.00250	0.00265	1	10/12/2019 13:01	WG1361770
Total Xylenes	U	T8	0.00506	0.00650	0.00689	1	10/12/2019 13:01	WG1361770
(S) Toluene-d8	*103*				*75.0-131*		*10/12/2019 13:01*	WG1361770
(S) 4-Bromofluorobenzene	*102*				*67.0-138*		*10/12/2019 13:01*	WG1361770
(S) 1,2-Dichloroethane-d4	*99.1*				*70.0-130*		*10/12/2019 13:01*	WG1361770

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U	T8	1.71	4.00	4.24	1	10/14/2019 21:11	WG1362447
C28-C40 Oil Range	U	T8	0.290	4.00	4.24	1	10/14/2019 21:11	WG1362447
(S) o-Terphenyl	*69.2*				*18.0-148*		*10/14/2019 21:11*	WG1362447

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	10/15/2019 17:33	WG1363448

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	3760		8.75	10.0	110	10	10/14/2019 10:24	WG1361375

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	T8	0.0239	0.100	0.110	1	10/14/2019 00:18	WG1362118
(S) a,a,a-Trifluorotoluene(FID)	*94.5*				*77.0-120*		*10/14/2019 00:18*	WG1362118

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U	T8	0.000440	0.00100	0.00110	1	10/12/2019 13:22	WG1361770
Toluene	0.00545	J T8	0.00138	0.00500	0.00550	1	10/12/2019 13:22	WG1361770
Ethylbenzene	U	T8	0.000583	0.00250	0.00275	1	10/12/2019 13:22	WG1361770
Total Xylenes	U	T8	0.00526	0.00650	0.00716	1	10/12/2019 13:22	WG1361770
(S) Toluene-d8	*104*				*75.0-131*		*10/12/2019 13:22*	WG1361770
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*10/12/2019 13:22*	WG1361770
(S) 1,2-Dichloroethane-d4	*97.7*				*70.0-130*		*10/12/2019 13:22*	WG1361770

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.89	T8	1.77	4.00	4.40	1	10/15/2019 11:10	WG1362447
C28-C40 Oil Range	7.35	T8	0.302	4.00	4.40	1	10/15/2019 11:10	WG1362447
(S) o-Terphenyl	*68.4*				*18.0-148*		*10/15/2019 11:10*	WG1362447

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.7		1	10/15/2019 17:33	WG1363448

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	251		0.814	10.0	10.2	1	10/14/2019 10:41	WG1361375

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	T8	0.0222	0.100	0.102	1	10/14/2019 00:42	WG1362118
(S) a,a,a-Trifluorotoluene(FID)	*93.6*				*77.0-120*		*10/14/2019 00:42*	WG1362118

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U	T8	0.000409	0.00100	0.00102	1	10/12/2019 13:42	WG1361770
Toluene	0.00532	T8	0.00128	0.00500	0.00512	1	10/12/2019 13:42	WG1361770
Ethylbenzene	U	T8	0.000542	0.00250	0.00256	1	10/12/2019 13:42	WG1361770
Total Xylenes	U	T8	0.00489	0.00650	0.00665	1	10/12/2019 13:42	WG1361770
(S) Toluene-d8	*105*				*75.0-131*		*10/12/2019 13:42*	WG1361770
(S) 4-Bromofluorobenzene	*100*				*67.0-138*		*10/12/2019 13:42*	WG1361770
(S) 1,2-Dichloroethane-d4	*100*				*70.0-130*		*10/12/2019 13:42*	WG1361770

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U	T8	1.65	4.00	4.09	1	10/14/2019 21:24	WG1362447
C28-C40 Oil Range	U	T8	0.280	4.00	4.09	1	10/14/2019 21:24	WG1362447
(S) o-Terphenyl	*82.8*				*18.0-148*		*10/14/2019 21:24*	WG1362447

Method Blank (MB)

(MB) R3461494-1 10/15/19 17:33

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1150027-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1150027-01 10/15/19 17:33 • (DUP) R3461494-3 10/15/19 17:33

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.7	83.9	1	0.136		10

Laboratory Control Sample (LCS)

(LCS) R3461494-2 10/15/19 17:33

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	51.0	102	85.0-115	

Method Blank (MB)

(MB) R3461964-1 10/16/19 19:11

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1148626-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1148626-01 10/16/19 19:11 • (DUP) R3461964-3 10/16/19 19:11

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.5	87.3	1	0.251		10

Laboratory Control Sample (LCS)

(LCS) R3461964-2 10/16/19 19:11

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

Method Blank (MB)

(MB) R3460716-1 10/14/19 02:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	2.82	J	0.795	10.0

L1147945-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1147945-13 10/14/19 03:17 • (DUP) R3460716-3 10/14/19 03:34

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	106	104	1	1.49		20

L1148529-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1148529-04 10/14/19 07:07 • (DUP) R3460716-6 10/14/19 07:24

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	11000	11200	100	1.37		20

Laboratory Control Sample (LCS)

(LCS) R3460716-2 10/14/19 02:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	217	108	90.0-110	

L1148061-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1148061-05 10/14/19 04:39 • (MS) R3460716-4 10/14/19 04:56 • (MSD) R3460716-5 10/14/19 05:45

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	543	2970	3520	3550	100	106	1	80.0-120	E	E	0.833	20

Method Blank (MB)

(MB) R3462385-2 10/13/19 17:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.3*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3462385-1 10/13/19 16:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.68	85.1	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*97.3*	*77.0-120*	

Method Blank (MB)

(MB) R3460564-2 10/12/19 10:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3460564-1 10/12/19 09:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00501	100	70.0-123	
Ethylbenzene	0.00500	0.00515	103	74.0-126	
Toluene	0.00500	0.00468	93.6	75.0-121	
Xylenes, Total	0.0150	0.0132	88.0	72.0-127	
(S) Toluene-d8			*104*	*75.0-131*	
(S) 4-Bromofluorobenzene			*104*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

L1146066-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1146066-05 10/12/19 15:47 • (MS) R3460564-3 10/12/19 17:31 • (MSD) R3460564-4 10/12/19 17:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.00	ND	0.696	0.641	69.6	64.1	8	10.0-149			8.23	37
Ethylbenzene	1.00	0.453	1.26	1.16	80.7	70.7	8	10.0-160			8.26	38
Toluene	1.00	ND	0.675	0.563	66.0	54.8	8	10.0-156			18.1	38
Xylenes, Total	3.00	1.38	3.68	3.43	76.7	68.3	8	10.0-160			7.03	38
(S) Toluene-d8					*105*	*102*		*75.0-131*				
(S) 4-Bromofluorobenzene					*107*	*103*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*102*	*102*		*70.0-130*				

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R3461012-1 10/14/19 20:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*75.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3461012-2 10/14/19 20:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.2	80.4	50.0-150	
(S) o-Terphenyl			*97.6*	*18.0-148*	

L1148616-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1148616-01 10/14/19 23:55 • (MS) R3461012-3 10/15/19 00:08 • (MSD) R3461012-4 10/15/19 00:21

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	ND	111	147	222	294	5	50.0-150	J5	J3 J5	27.9	20
(S) o-Terphenyl					*83.5*	*77.3*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MQL (dry)	Method Quantitation Limit.
MQL	Method Quantitation Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
SDL (dry)	Sample Detection Limit.
(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 Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
T8	Sample(s) received past/too close to holding time expiration.

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 is the 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.

State Accreditations

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

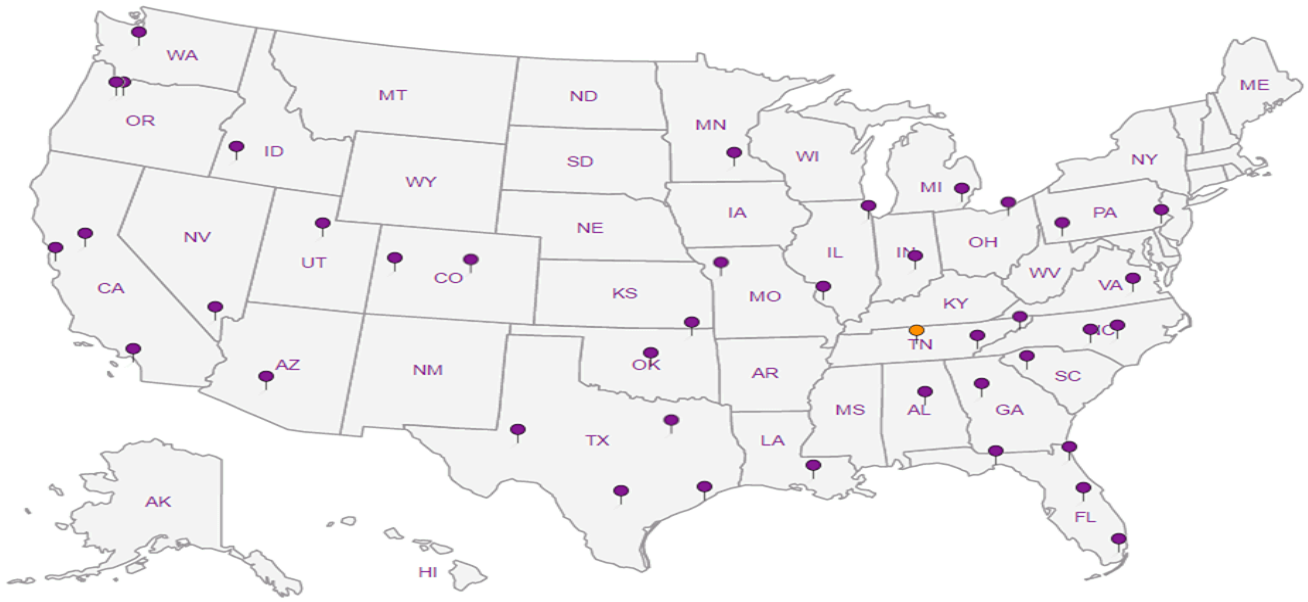
Third Party Federal Accreditations

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

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

Our Locations

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



HH2081 MS 10/15

Analysis Request of Chain of Custody Record

Tetra Tech. Inc.

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

114864

Client Name:	Conoco Phillips	**Site Manager:**	Chrisian Llull
Project Name:	COP VGEU 19-01		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	J. Hall

Comments: Run deeper samples if GRO+DRO exceeds 100 mg/kg or if benzene exceeds 10 mg/kg or if total BTEX exceeds 50 mg/kg or if chlorides exceed 600 mg/kg.

COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
		YEAR: 2019																															
10	BH-4 (0'- 1')	9/16/2019	1120		X				X		1	N	X		X												X						
11	BH-4 (2'- 3')	9/16/2019	1125		X				X		1	N	X		X												X						
12	BH-4 (4'- 5')	9/16/2019	1130		X				X		1	N	X		X												X						
13	BH-5 (0'- 1')	9/16/2019	1145		X				X		1	N	X		X												X						
14	BH-5 (2'- 3')	9/16/2019	1150		X				X		1	N	X		X												X						
15	BH-5 (4'- 5')	9/16/2019	1155		X				X		1	N	X		X												X						
	BH-5 (6'- 7')	9/16/2019	1200		X				X		1	N																					X
	BH-5 (9'- 10')	9/16/2019	1210		X				X		1	N																					X
01	BH-5 (14'- 15')	9/16/2019	1225		X				X		1	N																					X
	BH-5 (19'- 20')	9/16/2019	1240		X				X		1	N																					X

Relinquished by: J. Hall	Date: 9-2019	Time: 13:00	Received by:	Date: 9.20	Time: 13:00
Relinquished by:	Date: 9.20	Time: 15:30	Received by: SwA	Date: 9.20	Time: 1530
Relinquished by:	Date:	Time:	Received by:	Date: 9/21/19	Time: 8:30

LAB USE ONLY

Sample Temperature: 3 to 3.5c

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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~~142051~~ M7/16/19

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

1148640

Client Name:	Conoco Phillips	**Site Manager:**	Chrisian Llull
Project Name:	COP VGEU 19-01		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	

Comments: Run deeper samples if GRO+DRO exceeds 100 mg/kg or if benzene exceeds 10 mg/kg or if total BTEX exceeds 50 mg/kg or if chlorides exceed 600 mg/kg.

COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chlonde 300.0	Chlonde Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
02	BH-5 (24'- 25')	9/16/2019	1255		X				X			1	N																					X
03	BH-5 (29'- 30')	9/16/2019	1310		X				X			1	N																					X
16	BH-6 (0'- 1')	9/16/2019	1330		X				X			1	N	X		X												X					
17	BH-6 (2'- 3')	9/16/2019	1340		X				X			1	N	X		X												X					
18	BH-6 (4'- 5')	9/16/2019	1350		X				X			1	N	X		X												X					
04	BH-6 (6'- 7')	9/16/2019	1400		X				X			1	N																					X
	BH-6 (9'- 10')	9/16/2019	1410		X				X			1	N																					X
19	BH-7 (0'- 1')	9/16/2019	1430		X				X			1	N	X		X												X					
20	BH-7 (2'- 3')	9/16/2019	1435		X				X			1	N	X		X												X					
21	BH-7 (4'- 5')	9/16/2019	1440		X				X			1	N	X		X												X					

Relinquished by:	Date: 9-20-19	Time: 13:00	Received by:	Date: 9209 Time: 13:00
Relinquished by:	Date: 9.20.19	Time: 15:30	Received by: SwA	Date: 9.20 Time: 15:30
Relinquished by:	Date:	Time:	Received by:	Date: 9/21/19 Time: 8:30

LAB USE ONLY

Sample Temperature 3+0=3°C

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

1142081 µ) 10%

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

1148648

Client Name:	Conoco Phillips	Site Manager:	Chrisian Llull
Project Name:	COP VGEU 19-01		
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	

Comments: Run deeper samples if GRO+DRO exceeds 100 mg/kg or if benzene exceeds 10 mg/kg or if total BTEX exceeds 50 mg/kg or if chlorides exceed 600 mg/kg. **COPTETRA Acctnum**

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	HNO_3	ICE	NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
05	BH-7 (6'- 7')	9/16/2019	1445		X			X		1	N																					X
	BH-7 (9'- 10')	9/16/2019	1450		X			X		1	N																					X
22	BH-8 (0'- 1')	9/16/2019	1500		X			X		1	N	X		X												X						
23	BH-8 (2'- 3')	9/16/2019	1510		X			X		1	N	X		X												X						
24	BH-8 (4'- 5')	9/16/2019	1520		X			X		1	N	X		X												X						
	BH-8 (6'- 7')	9/16/2019	1530		X			X		1	N																					X
25	BH-9 (0'- 1')	9/16/2019	1545		X			X		1	N	X		X												X						
26	BH-9 (2'- 3')	9/16/2019	1550		X			X		1	N	X		X												X						
27	BH-9 (4'- 5')	9/16/2019	1555		X			X		1	N	X		X												X						
06	BH-9 (6'- 7')	9/16/2019	1600		X			X		1	N																					X

Relinquished by:	Date: 9-20-19	Time: 13:00	Received by: Date: 9.20.19 Time:
Relinquished by:	Date: 9.20.19	Time: 15:30	Received by: Date: 9.20.19 Time: 15:30
Relinquished by:	Date:	Time:	Received by: Date: 9/21/19 Time: 8:30

LAB USE ONLY

Sample Temperature: 3+0.3=3.3

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Matt Shacklock

From: Chris McCord
Sent: Wednesday, October 9, 2019 2:57 PM
To: Project Service
Subject: L1142081 *COPTETRA* log from hold 9-148

Please log hold samples BH-5 (14-15'), BH-5 (24-25'), BH-5 (29-30'), BH-6 (6-7'), BH-7 (6-7'), and BH-9 (6-7') for V8260BTEX, GRO, DRORLA, CHLORIDE-300, and TS. Log as R5 due 10/16.

Thanks,
Christopher McCord
Project Manager

Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
615.773.3281 | Cell 615.504.3183
cmccord@pacenational.com|pacenational.com

ESC Lab Sciences is now Pace Analytical National Center for Testing & Innovation! Please make note of my new email address and website.

From: Dickerson, Ryan [mailto:Ryan.Dickerson@tetratech.com]
Sent: Wednesday, October 09, 2019 2:24 PM
To: Chris McCord
Cc: Llull, Christian
Subject: COP - VGEU 19-01, Project Number: 212C-MD-01840

Chris,
Can you run the following "on-hold" samples for chloride, GRO, DRO, ORO and BTEX?
BH-5 (14-15')
BH-5 (24-25')
BH-5 (29-30')
BH-6 (6-7')
BH-7 (6-7')
BH-9 (6-7')

Thanks,

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

Tetra Tech | *Leading with Science®* | OGA
8911 N. Capital of TX Hwy. | Bldg. 2, Ste 2310 | Austin, TX 78759 | tetratech.com

ANALYTICAL REPORT

April 21, 2021

ConocoPhillips - Tetra Tech

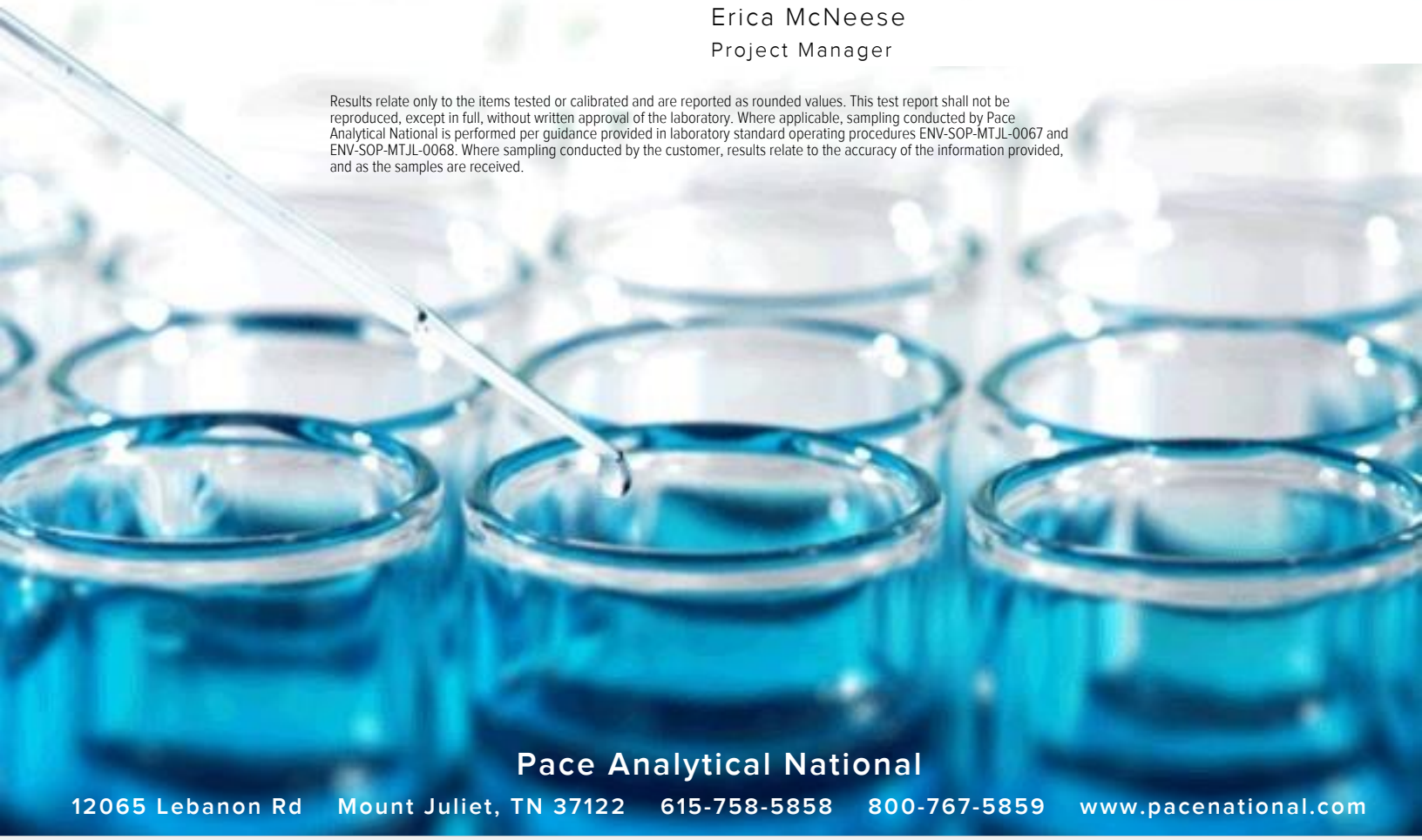
Sample Delivery Group:	L1337069
Samples Received:	04/10/2021
Project Number:	212C-MD-01840
Description:	COP VGEU 19-01 Flowline Release

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

Entire Report Reviewed By: Erica McNeese

Erica McNeese
Project Manager

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



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

TABLE OF CONTENTS

BH-10 (0-1) L1337069-01 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652195	1	04/15/21 13:52	04/15/21 14:10	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 15:38	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 16:52	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651344	1	04/13/21 16:40	04/14/21 14:54	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1652843	1	04/16/21 10:57	04/17/21 11:06	CAG	Mt. Juliet, TN

BH-10 (2-3) L1337069-02 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652195	1	04/15/21 13:52	04/15/21 14:10	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 15:48	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 17:20	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651344	1	04/13/21 16:40	04/14/21 15:12	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1652843	1	04/16/21 10:57	04/17/21 01:05	TJD	Mt. Juliet, TN

BH-10 (3-4) L1337069-03 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652195	1	04/15/21 13:52	04/15/21 14:10	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 15:57	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 17:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651344	1	04/13/21 16:40	04/14/21 15:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 07:20	CAG	Mt. Juliet, TN

BH-10 (4-5) L1337069-04 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652195	1	04/15/21 13:52	04/15/21 14:10	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 16:07	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 19:06	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651344	1	04/13/21 16:40	04/14/21 15:50	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 07:33	CAG	Mt. Juliet, TN

BH-11 (0-1) L1337069-05 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652195	1	04/15/21 13:52	04/15/21 14:10	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 16:17	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 19:34	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651344	1	04/13/21 16:40	04/14/21 16:09	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 07:46	CAG	Mt. Juliet, TN

BH-11 (2-3) L1337069-06 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 16:27	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 20:03	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651624	1	04/13/21 16:40	04/14/21 22:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/18/21 12:25	CAG	Mt. Juliet, TN

BH-11 (3-4) L1337069-07 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 16:46	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 20:31	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651624	1	04/13/21 16:40	04/14/21 23:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/18/21 11:44	CAG	Mt. Juliet, TN

BH-11 (4-5) L1337069-08 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 17:15	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 20:59	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/14/21 22:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/18/21 11:31	CAG	Mt. Juliet, TN

BH-12 (0-1) L1337069-09 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 17:25	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 21:27	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/14/21 22:42	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 08:53	CAG	Mt. Juliet, TN

BH-12 (2-3) L1337069-10 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 17:35	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 21:55	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/14/21 23:01	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 08:40	CAG	Mt. Juliet, TN

BH-12 (3-4) L1337069-11 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 17:45	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 22:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/14/21 23:20	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 09:07	CAG	Mt. Juliet, TN

BH-12 (4-5) L1337069-12 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 17:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 23:17	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 00:55	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 09:20	CAG	Mt. Juliet, TN

BH-13 (0-1) L1337069-13 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	10	04/18/21 14:05	04/18/21 18:04	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/18/21 23:45	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 01:13	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 10:27	CAG	Mt. Juliet, TN

BH-13 (2-3) L1337069-14 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	10	04/18/21 14:05	04/18/21 18:14	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/19/21 00:18	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 01:32	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/18/21 12:11	CAG	Mt. Juliet, TN

BH-13 (3-4) L1337069-15 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652297	1	04/15/21 15:32	04/15/21 15:52	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 18:24	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653328	1	04/13/21 16:40	04/19/21 00:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 01:51	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 09:33	CAG	Mt. Juliet, TN

BH-13 (4-5) L1337069-16 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 18:33	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1654174	1	04/13/21 16:40	04/19/21 07:34	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 02:10	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 10:13	CAG	Mt. Juliet, TN

BH-14 (0-1) L1337069-17 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 19:38	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1654174	1	04/13/21 16:40	04/19/21 08:02	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 02:29	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653278	1	04/16/21 19:59	04/17/21 10:54	CAG	Mt. Juliet, TN

BH-14 (2-3) L1337069-18 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	5	04/18/21 14:05	04/18/21 19:47	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1654174	1	04/13/21 16:40	04/19/21 08:31	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 02:47	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/18/21 13:31	CAG	Mt. Juliet, TN

BH-14 (3-4) L1337069-19 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 19:57	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1654174	1	04/13/21 16:40	04/19/21 08:59	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 03:06	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/17/21 22:39	CAG	Mt. Juliet, TN

BH-14 (4-5) L1337069-20 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651744	1	04/18/21 14:05	04/18/21 20:07	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1654174	1	04/13/21 16:40	04/19/21 09:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 03:25	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/18/21 13:18	CAG	Mt. Juliet, TN

BH-15 (0-1) L1337069-21 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 21:57	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 00:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 03:44	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/17/21 23:05	CAG	Mt. Juliet, TN

BH-15 (2-3) L1337069-22 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 22:06	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 00:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 04:03	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/18/21 13:58	CAG	Mt. Juliet, TN

BH-15 (3-4) L1337069-23 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 22:16	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 00:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 04:22	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/17/21 23:31	CAG	Mt. Juliet, TN

BH-15 (4-5) L1337069-24 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 22:25	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 01:18	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 04:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/17/21 23:44	CAG	Mt. Juliet, TN

BH-16 (0-1) L1337069-25 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652301	1	04/15/21 14:16	04/15/21 14:25	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 22:35	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 01:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 04:59	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/17/21 23:57	CAG	Mt. Juliet, TN

BH-16 (2-3) L1337069-26 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652302	1	04/15/21 14:03	04/15/21 14:13	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 22:44	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 02:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 05:18	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/18/21 14:12	CAG	Mt. Juliet, TN

BH-16 (3-4) L1337069-27 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652302	1	04/15/21 14:03	04/15/21 14:13	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 23:03	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 02:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651716	1	04/13/21 16:40	04/15/21 05:37	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/18/21 13:45	CAG	Mt. Juliet, TN

BH-16 (4-5) L1337069-28 Solid

Collected by: Joe Tyler | Collected date/time: 04/08/21 00:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1652302	1	04/15/21 14:03	04/15/21 14:13	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1651745	1	04/14/21 22:45	04/15/21 23:32	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1653738	1	04/13/21 16:40	04/18/21 02:47	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651718	1	04/13/21 16:40	04/15/21 05:15	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1653280	1	04/17/21 08:26	04/18/21 00:36	CAG	Mt. Juliet, TN

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

Erica McNeese
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.6		1	04/15/2021 14:10	WG1652195

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	28.4		9.33	20.3	1	04/18/2021 15:38	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	04/18/2021 16:52	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*77.0-120*		*04/18/2021 16:52*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000481	0.00103	1	04/14/2021 14:54	WG1651344
Toluene	U		0.00134	0.00515	1	04/14/2021 14:54	WG1651344
Ethylbenzene	U		0.000759	0.00257	1	04/14/2021 14:54	WG1651344
Total Xylenes	U		0.000906	0.00669	1	04/14/2021 14:54	WG1651344
(S) Toluene-d8	*107*			*75.0-131*		*04/14/2021 14:54*	WG1651344
(S) 4-Bromofluorobenzene	*87.8*			*67.0-138*		*04/14/2021 14:54*	WG1651344
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*04/14/2021 14:54*	WG1651344

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	9.30		1.63	4.06	1	04/17/2021 11:06	WG1652843
C28-C40 Oil Range	41.3		0.278	4.06	1	04/17/2021 11:06	WG1652843
(S) o-Terphenyl	*32.1*			*18.0-148*		*04/17/2021 11:06*	WG1652843

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	04/15/2021 14:10	WG1652195

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	59.1		9.54	20.7	1	04/18/2021 15:48	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	04/18/2021 17:20	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*		*04/18/2021 17:20*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000502	0.00107	1	04/14/2021 15:12	WG1651344
Toluene	U		0.00140	0.00537	1	04/14/2021 15:12	WG1651344
Ethylbenzene	U		0.000792	0.00269	1	04/14/2021 15:12	WG1651344
Total Xylenes	U		0.000946	0.00699	1	04/14/2021 15:12	WG1651344
(S) Toluene-d8	*108*			*75.0-131*		*04/14/2021 15:12*	WG1651344
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*		*04/14/2021 15:12*	WG1651344
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/14/2021 15:12*	WG1651344

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.33	J	1.67	4.15	1	04/17/2021 01:05	WG1652843
C28-C40 Oil Range	6.16	B	0.284	4.15	1	04/17/2021 01:05	WG1652843
(S) o-Terphenyl	*62.0*			*18.0-148*		*04/17/2021 01:05*	WG1652843

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.1		1	04/15/2021 14:10	WG1652195

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	82.1		9.48	20.6	1	04/18/2021 15:57	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0224	0.103	1	04/18/2021 17:48	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*		*04/18/2021 17:48*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000495	0.00106	1	04/14/2021 15:31	WG1651344
Toluene	U		0.00138	0.00530	1	04/14/2021 15:31	WG1651344
Ethylbenzene	U		0.000782	0.00265	1	04/14/2021 15:31	WG1651344
Total Xylenes	U		0.000933	0.00689	1	04/14/2021 15:31	WG1651344
(S) Toluene-d8	*109*			*75.0-131*		*04/14/2021 15:31*	WG1651344
(S) 4-Bromofluorobenzene	*90.7*			*67.0-138*		*04/14/2021 15:31*	WG1651344
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/14/2021 15:31*	WG1651344

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.66	4.12	1	04/17/2021 07:20	WG1653278
C28-C40 Oil Range	1.05	J	0.282	4.12	1	04/17/2021 07:20	WG1653278
(S) o-Terphenyl	*68.6*			*18.0-148*		*04/17/2021 07:20*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.4		1	04/15/2021 14:10	WG1652195

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	20.4	J	9.74	21.2	1	04/18/2021 16:07	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	04/18/2021 19:06	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*		*04/18/2021 19:06*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000522	0.00112	1	04/14/2021 15:50	WG1651344
Toluene	U		0.00145	0.00559	1	04/14/2021 15:50	WG1651344
Ethylbenzene	U		0.000824	0.00280	1	04/14/2021 15:50	WG1651344
Total Xylenes	U		0.000984	0.00727	1	04/14/2021 15:50	WG1651344
(S) Toluene-d8	*110*			*75.0-131*		*04/14/2021 15:50*	WG1651344
(S) 4-Bromofluorobenzene	*92.9*			*67.0-138*		*04/14/2021 15:50*	WG1651344
(S) 1,2-Dichloroethane-d4	*98.5*			*70.0-130*		*04/14/2021 15:50*	WG1651344

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.05	J	1.71	4.24	1	04/17/2021 07:33	WG1653278
C28-C40 Oil Range	0.753	J	0.290	4.24	1	04/17/2021 07:33	WG1653278
(S) o-Terphenyl	*68.0*			*18.0-148*		*04/17/2021 07:33*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	04/15/2021 14:10	WG1652195

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	25.4		9.64	21.0	1	04/18/2021 16:17	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.213		0.0227	0.105	1	04/18/2021 19:34	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*77.0-120*		*04/18/2021 19:34*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000512	0.00110	1	04/14/2021 16:09	WG1651344
Toluene	U		0.00143	0.00548	1	04/14/2021 16:09	WG1651344
Ethylbenzene	U		0.000808	0.00274	1	04/14/2021 16:09	WG1651344
Total Xylenes	0.00150	J	0.000965	0.00713	1	04/14/2021 16:09	WG1651344
(S) Toluene-d8	*108*			*75.0-131*		*04/14/2021 16:09*	WG1651344
(S) 4-Bromofluorobenzene	*87.1*			*67.0-138*		*04/14/2021 16:09*	WG1651344
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*		*04/14/2021 16:09*	WG1651344

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.49	J	1.69	4.19	1	04/17/2021 07:46	WG1653278
C28-C40 Oil Range	25.7		0.287	4.19	1	04/17/2021 07:46	WG1653278
(S) o-Terphenyl	*71.1*			*18.0-148*		*04/17/2021 07:46*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.7		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	39.1	P1	10.0	21.8	1	04/18/2021 16:27	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.100	J	0.0237	0.109	1	04/18/2021 20:03	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*77.0-120*		*04/18/2021 20:03*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U	J3	0.000552	0.00118	1	04/14/2021 22:46	WG1651624
Toluene	U		0.00154	0.00591	1	04/14/2021 22:46	WG1651624
Ethylbenzene	U	J3	0.000871	0.00295	1	04/14/2021 22:46	WG1651624
Total Xylenes	U		0.00104	0.00768	1	04/14/2021 22:46	WG1651624
(S) Toluene-d8	*112*			*75.0-131*		*04/14/2021 22:46*	WG1651624
(S) 4-Bromofluorobenzene	*98.0*			*67.0-138*		*04/14/2021 22:46*	WG1651624
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/14/2021 22:46*	WG1651624

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.96		1.76	4.36	1	04/18/2021 12:25	WG1653278
C28-C40 Oil Range	18.5		0.299	4.36	1	04/18/2021 12:25	WG1653278
(S) o-Terphenyl	*69.8*			*18.0-148*		*04/18/2021 12:25*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	33.7		9.62	20.9	1	04/18/2021 16:46	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0581	J	0.0227	0.105	1	04/18/2021 20:31	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*		*04/18/2021 20:31*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000510	0.00109	1	04/14/2021 23:05	WG1651624
Toluene	U		0.00142	0.00546	1	04/14/2021 23:05	WG1651624
Ethylbenzene	U		0.000804	0.00273	1	04/14/2021 23:05	WG1651624
Total Xylenes	U		0.000960	0.00709	1	04/14/2021 23:05	WG1651624
(S) Toluene-d8	*107*			*75.0-131*		*04/14/2021 23:05*	WG1651624
(S) 4-Bromofluorobenzene	*95.0*			*67.0-138*		*04/14/2021 23:05*	WG1651624
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*04/14/2021 23:05*	WG1651624

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.69	J	1.68	4.18	1	04/18/2021 11:44	WG1653278
C28-C40 Oil Range	9.20		0.287	4.18	1	04/18/2021 11:44	WG1653278
(S) o-Terphenyl	*75.5*			*18.0-148*		*04/18/2021 11:44*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.4		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	14.9	J	9.45	20.5	1	04/18/2021 17:15	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0244	J	0.0223	0.103	1	04/18/2021 20:59	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*77.0-120*		*04/18/2021 20:59*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000492	0.00105	1	04/14/2021 22:24	WG1651716
Toluene	U		0.00137	0.00527	1	04/14/2021 22:24	WG1651716
Ethylbenzene	U		0.000777	0.00264	1	04/14/2021 22:24	WG1651716
Total Xylenes	U		0.000928	0.00685	1	04/14/2021 22:24	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/14/2021 22:24*	WG1651716
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*04/14/2021 22:24*	WG1651716
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*04/14/2021 22:24*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.58	J	1.65	4.11	1	04/18/2021 11:31	WG1653278
C28-C40 Oil Range	4.65		0.281	4.11	1	04/18/2021 11:31	WG1653278
(S) o-Terphenyl	*71.6*			*18.0-148*		*04/18/2021 11:31*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.9		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	379		9.60	20.9	1	04/18/2021 17:25	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	04/18/2021 21:27	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*		*04/18/2021 21:27*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000507	0.00109	1	04/14/2021 22:42	WG1651716
Toluene	U		0.00141	0.00543	1	04/14/2021 22:42	WG1651716
Ethylbenzene	U		0.000801	0.00272	1	04/14/2021 22:42	WG1651716
Total Xylenes	U		0.000956	0.00706	1	04/14/2021 22:42	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/14/2021 22:42*	WG1651716
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*04/14/2021 22:42*	WG1651716
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*04/14/2021 22:42*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.72	J	1.68	4.17	1	04/17/2021 08:53	WG1653278
C28-C40 Oil Range	17.1		0.286	4.17	1	04/17/2021 08:53	WG1653278
(S) o-Terphenyl	*56.8*			*18.0-148*		*04/17/2021 08:53*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	253		9.59	20.8	1	04/18/2021 17:35	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	04/18/2021 21:55	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*77.0-120*		*04/18/2021 21:55*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000506	0.00108	1	04/14/2021 23:01	WG1651716
Toluene	U		0.00141	0.00542	1	04/14/2021 23:01	WG1651716
Ethylbenzene	U		0.000799	0.00271	1	04/14/2021 23:01	WG1651716
Total Xylenes	U		0.000954	0.00705	1	04/14/2021 23:01	WG1651716
(S) Toluene-d8	*115*			*75.0-131*		*04/14/2021 23:01*	WG1651716
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*04/14/2021 23:01*	WG1651716
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*04/14/2021 23:01*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.68	4.17	1	04/17/2021 08:40	WG1653278
C28-C40 Oil Range	2.37	J	0.286	4.17	1	04/17/2021 08:40	WG1653278
(S) o-Terphenyl	*57.9*			*18.0-148*		*04/17/2021 08:40*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	65.6		9.55	20.8	1	04/18/2021 17:45	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	04/18/2021 22:41	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*		*04/18/2021 22:41*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000503	0.00108	1	04/14/2021 23:20	WG1651716
Toluene	U		0.00140	0.00538	1	04/14/2021 23:20	WG1651716
Ethylbenzene	U		0.000793	0.00269	1	04/14/2021 23:20	WG1651716
Total Xylenes	U		0.000947	0.00699	1	04/14/2021 23:20	WG1651716
(S) Toluene-d8	*115*			*75.0-131*		*04/14/2021 23:20*	WG1651716
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*04/14/2021 23:20*	WG1651716
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/14/2021 23:20*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.15	1	04/17/2021 09:07	WG1653278
C28-C40 Oil Range	1.93	J	0.284	4.15	1	04/17/2021 09:07	WG1653278
(S) o-Terphenyl	*48.6*			*18.0-148*		*04/17/2021 09:07*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	17.7	J	9.84	21.4	1	04/18/2021 17:54	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	04/18/2021 23:17	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*		*04/18/2021 23:17*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00110	J	0.000533	0.00114	1	04/15/2021 00:55	WG1651716
Toluene	U		0.00148	0.00570	1	04/15/2021 00:55	WG1651716
Ethylbenzene	U		0.000841	0.00285	1	04/15/2021 00:55	WG1651716
Total Xylenes	U		0.00100	0.00741	1	04/15/2021 00:55	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/15/2021 00:55*	WG1651716
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*04/15/2021 00:55*	WG1651716
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/15/2021 00:55*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.72	4.28	1	04/17/2021 09:20	WG1653278
C28-C40 Oil Range	0.893	J	0.293	4.28	1	04/17/2021 09:20	WG1653278
(S) o-Terphenyl	*54.0*			*18.0-148*		*04/17/2021 09:20*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	5700		110	239	10	04/18/2021 18:04	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0260	0.120	1	04/18/2021 23:45	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*		*04/18/2021 23:45*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000652	0.00140	1	04/15/2021 01:13	WG1651716
Toluene	U		0.00181	0.00698	1	04/15/2021 01:13	WG1651716
Ethylbenzene	U		0.00103	0.00349	1	04/15/2021 01:13	WG1651716
Total Xylenes	U		0.00123	0.00907	1	04/15/2021 01:13	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/15/2021 01:13*	WG1651716
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*04/15/2021 01:13*	WG1651716
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/15/2021 01:13*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.36		1.93	4.79	1	04/17/2021 10:27	WG1653278
C28-C40 Oil Range	20.2		0.328	4.79	1	04/17/2021 10:27	WG1653278
(S) o-Terphenyl	*58.6*			*18.0-148*		*04/17/2021 10:27*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	3250		104	227	10	04/18/2021 18:14	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0246	0.114	1	04/19/2021 00:18	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*		*04/19/2021 00:18*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000594	0.00127	1	04/15/2021 01:32	WG1651716
Toluene	U		0.00165	0.00636	1	04/15/2021 01:32	WG1651716
Ethylbenzene	U		0.000938	0.00318	1	04/15/2021 01:32	WG1651716
Total Xylenes	U		0.00112	0.00827	1	04/15/2021 01:32	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/15/2021 01:32*	WG1651716
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*04/15/2021 01:32*	WG1651716
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/15/2021 01:32*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.80		1.83	4.54	1	04/18/2021 12:11	WG1653278
C28-C40 Oil Range	16.1		0.311	4.54	1	04/18/2021 12:11	WG1653278
(S) o-Terphenyl	*59.6*			*18.0-148*		*04/18/2021 12:11*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.8		1	04/15/2021 15:52	WG1652297

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	552		9.70	21.1	1	04/18/2021 18:24	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	04/19/2021 00:48	WG1653328
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*		*04/19/2021 00:48*	WG1653328

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000518	0.00111	1	04/15/2021 01:51	WG1651716
Toluene	U		0.00144	0.00555	1	04/15/2021 01:51	WG1651716
Ethylbenzene	U		0.000817	0.00277	1	04/15/2021 01:51	WG1651716
Total Xylenes	U		0.000976	0.00721	1	04/15/2021 01:51	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/15/2021 01:51*	WG1651716
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*04/15/2021 01:51*	WG1651716
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/15/2021 01:51*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.70	4.22	1	04/17/2021 09:33	WG1653278
C28-C40 Oil Range	2.86	J	0.289	4.22	1	04/17/2021 09:33	WG1653278
(S) o-Terphenyl	*60.1*			*18.0-148*		*04/17/2021 09:33*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	376		9.58	20.8	1	04/18/2021 18:33	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0523	J	0.0226	0.104	1	04/19/2021 07:34	WG1654174
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*		*04/19/2021 07:34*	WG1654174

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000505	0.00108	1	04/15/2021 02:10	WG1651716
Toluene	U		0.00141	0.00541	1	04/15/2021 02:10	WG1651716
Ethylbenzene	U		0.000798	0.00271	1	04/15/2021 02:10	WG1651716
Total Xylenes	U		0.000952	0.00703	1	04/15/2021 02:10	WG1651716
(S) Toluene-d8	*118*			*75.0-131*		*04/15/2021 02:10*	WG1651716
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*04/15/2021 02:10*	WG1651716
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*04/15/2021 02:10*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.68	4.16	1	04/17/2021 10:13	WG1653278
C28-C40 Oil Range	2.43	J	0.285	4.16	1	04/17/2021 10:13	WG1653278
(S) o-Terphenyl	*62.4*			*18.0-148*		*04/17/2021 10:13*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.5		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	337		10.6	23.1	1	04/18/2021 19:38	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.107	J	0.0251	0.116	1	04/19/2021 08:02	WG1654174
(S) a,a,a-Trifluorotoluene(FID)	*96.9*			*77.0-120*		*04/19/2021 08:02*	WG1654174

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000613	0.00131	1	04/15/2021 02:29	WG1651716
Toluene	U		0.00171	0.00656	1	04/15/2021 02:29	WG1651716
Ethylbenzene	U		0.000967	0.00328	1	04/15/2021 02:29	WG1651716
Total Xylenes	U		0.00115	0.00853	1	04/15/2021 02:29	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/15/2021 02:29*	WG1651716
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*04/15/2021 02:29*	WG1651716
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*04/15/2021 02:29*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.02		1.86	4.62	1	04/17/2021 10:54	WG1653278
C28-C40 Oil Range	28.1		0.317	4.62	1	04/17/2021 10:54	WG1653278
(S) o-Terphenyl	*61.9*			*18.0-148*		*04/17/2021 10:54*	WG1653278

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	1080		48.3	105	5	04/18/2021 19:47	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0228	0.105	1	04/19/2021 08:31	WG1654174
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*		*04/19/2021 08:31*	WG1654174

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000515	0.00110	1	04/15/2021 02:47	WG1651716
Toluene	U		0.00143	0.00551	1	04/15/2021 02:47	WG1651716
Ethylbenzene	U		0.000812	0.00275	1	04/15/2021 02:47	WG1651716
Total Xylenes	U		0.000970	0.00716	1	04/15/2021 02:47	WG1651716
(S) Toluene-d8	*117*			*75.0-131*		*04/15/2021 02:47*	WG1651716
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*04/15/2021 02:47*	WG1651716
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/15/2021 02:47*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.61	J	1.69	4.20	1	04/18/2021 13:31	WG1653280
C28-C40 Oil Range	7.20		0.288	4.20	1	04/18/2021 13:31	WG1653280
(S) o-Terphenyl	*67.7*			*18.0-148*		*04/18/2021 13:31*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.0		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	428		9.79	21.3	1	04/18/2021 19:57	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0231	0.106	1	04/19/2021 08:59	WG1654174
(S) a,a,a-Trifluorotoluene(FID)	*98.1*			*77.0-120*		*04/19/2021 08:59*	WG1654174

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000527	0.00113	1	04/15/2021 03:06	WG1651716
Toluene	U		0.00147	0.00565	1	04/15/2021 03:06	WG1651716
Ethylbenzene	U		0.000832	0.00282	1	04/15/2021 03:06	WG1651716
Total Xylenes	U		0.000994	0.00734	1	04/15/2021 03:06	WG1651716
(S) Toluene-d8	*115*			*75.0-131*		*04/15/2021 03:06*	WG1651716
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*04/15/2021 03:06*	WG1651716
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/15/2021 03:06*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.58		1.71	4.26	1	04/17/2021 22:39	WG1653280
C28-C40 Oil Range	13.2		0.292	4.26	1	04/17/2021 22:39	WG1653280
(S) o-Terphenyl	*68.8*			*18.0-148*		*04/17/2021 22:39*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.6		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	493		9.72	21.1	1	04/18/2021 20:07	WG1651744

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0264	J	0.0229	0.106	1	04/19/2021 09:27	WG1654174
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*77.0-120*		*04/19/2021 09:27*	WG1654174

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000520	0.00111	1	04/15/2021 03:25	WG1651716
Toluene	U		0.00145	0.00557	1	04/15/2021 03:25	WG1651716
Ethylbenzene	U		0.000821	0.00278	1	04/15/2021 03:25	WG1651716
Total Xylenes	U		0.000980	0.00724	1	04/15/2021 03:25	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/15/2021 03:25*	WG1651716
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*04/15/2021 03:25*	WG1651716
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*04/15/2021 03:25*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.10	J	1.70	4.23	1	04/18/2021 13:18	WG1653280
C28-C40 Oil Range	8.09		0.290	4.23	1	04/18/2021 13:18	WG1653280
(S) o-Terphenyl	*69.8*			*18.0-148*		*04/18/2021 13:18*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	88.8		9.58	20.8	1	04/15/2021 21:57	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	04/18/2021 00:12	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*90.8*			*77.0-120*		*04/18/2021 00:12*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000506	0.00108	1	04/15/2021 03:44	WG1651716
Toluene	U		0.00141	0.00542	1	04/15/2021 03:44	WG1651716
Ethylbenzene	U		0.000799	0.00271	1	04/15/2021 03:44	WG1651716
Total Xylenes	U		0.000954	0.00704	1	04/15/2021 03:44	WG1651716
(S) Toluene-d8	*116*			*75.0-131*		*04/15/2021 03:44*	WG1651716
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*04/15/2021 03:44*	WG1651716
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/15/2021 03:44*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.32		1.68	4.17	1	04/17/2021 23:05	WG1653280
C28-C40 Oil Range	14.6		0.285	4.17	1	04/17/2021 23:05	WG1653280
(S) o-Terphenyl	*64.3*			*18.0-148*		*04/17/2021 23:05*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.7		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	72.5		9.51	20.7	1	04/15/2021 22:06	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0224	0.103	1	04/18/2021 00:34	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*92.2*			*77.0-120*		*04/18/2021 00:34*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000498	0.00107	1	04/15/2021 04:03	WG1651716
Toluene	U		0.00139	0.00534	1	04/15/2021 04:03	WG1651716
Ethylbenzene	U		0.000787	0.00267	1	04/15/2021 04:03	WG1651716
Total Xylenes	U		0.000939	0.00694	1	04/15/2021 04:03	WG1651716
(S) Toluene-d8	*115*			*75.0-131*		*04/15/2021 04:03*	WG1651716
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*04/15/2021 04:03*	WG1651716
(S) 1,2-Dichloroethane-d4	*99.1*			*70.0-130*		*04/15/2021 04:03*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.71	J	1.66	4.13	1	04/18/2021 13:58	WG1653280
C28-C40 Oil Range	4.43	B	0.283	4.13	1	04/18/2021 13:58	WG1653280
(S) o-Terphenyl	*60.1*			*18.0-148*		*04/18/2021 13:58*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	139		9.54	20.7	1	04/15/2021 22:16	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	04/18/2021 00:56	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*		*04/18/2021 00:56*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000502	0.00107	1	04/15/2021 04:22	WG1651716
Toluene	U		0.00140	0.00537	1	04/15/2021 04:22	WG1651716
Ethylbenzene	U		0.000792	0.00269	1	04/15/2021 04:22	WG1651716
Total Xylenes	U		0.000946	0.00699	1	04/15/2021 04:22	WG1651716
(S) Toluene-d8	*117*			*75.0-131*		*04/15/2021 04:22*	WG1651716
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*04/15/2021 04:22*	WG1651716
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/15/2021 04:22*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.15	1	04/17/2021 23:31	WG1653280
C28-C40 Oil Range	3.93	B J	0.284	4.15	1	04/17/2021 23:31	WG1653280
(S) o-Terphenyl	*66.4*			*18.0-148*		*04/17/2021 23:31*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.2		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	310		9.87	21.5	1	04/15/2021 22:25	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0233	0.107	1	04/18/2021 01:18	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*92.5*			*77.0-120*		*04/18/2021 01:18*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000535	0.00115	1	04/15/2021 04:41	WG1651716
Toluene	U		0.00149	0.00573	1	04/15/2021 04:41	WG1651716
Ethylbenzene	U		0.000845	0.00287	1	04/15/2021 04:41	WG1651716
Total Xylenes	U		0.00101	0.00745	1	04/15/2021 04:41	WG1651716
(S) Toluene-d8	*115*			*75.0-131*		*04/15/2021 04:41*	WG1651716
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*04/15/2021 04:41*	WG1651716
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*		*04/15/2021 04:41*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.97	J	1.73	4.29	1	04/17/2021 23:44	WG1653280
C28-C40 Oil Range	4.37	B	0.294	4.29	1	04/17/2021 23:44	WG1653280
(S) o-Terphenyl	*66.7*			*18.0-148*		*04/17/2021 23:44*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	04/15/2021 14:25	WG1652301

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	93.0		10.0	21.8	1	04/15/2021 22:35	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0236	0.109	1	04/18/2021 01:40	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*91.3*			*77.0-120*		*04/18/2021 01:40*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000549	0.00118	1	04/15/2021 04:59	WG1651716
Toluene	U		0.00153	0.00588	1	04/15/2021 04:59	WG1651716
Ethylbenzene	U		0.000867	0.00294	1	04/15/2021 04:59	WG1651716
Total Xylenes	U		0.00103	0.00764	1	04/15/2021 04:59	WG1651716
(S) Toluene-d8	*115*			*75.0-131*		*04/15/2021 04:59*	WG1651716
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*04/15/2021 04:59*	WG1651716
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/15/2021 04:59*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.93		1.75	4.35	1	04/17/2021 23:57	WG1653280
C28-C40 Oil Range	20.3		0.298	4.35	1	04/17/2021 23:57	WG1653280
(S) o-Terphenyl	*68.2*			*18.0-148*		*04/17/2021 23:57*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.7		1	04/15/2021 14:13	WG1652302

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	140	J3	9.42	20.5	1	04/15/2021 22:44	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	04/18/2021 02:01	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*92.3*			*77.0-120*		*04/18/2021 02:01*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000490	0.00105	1	04/15/2021 05:18	WG1651716
Toluene	U		0.00136	0.00524	1	04/15/2021 05:18	WG1651716
Ethylbenzene	U		0.000773	0.00262	1	04/15/2021 05:18	WG1651716
Total Xylenes	U		0.000922	0.00681	1	04/15/2021 05:18	WG1651716
(S) Toluene-d8	*115*			*75.0-131*		*04/15/2021 05:18*	WG1651716
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*04/15/2021 05:18*	WG1651716
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/15/2021 05:18*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.21		1.65	4.10	1	04/18/2021 14:12	WG1653280
C28-C40 Oil Range	10.4		0.281	4.10	1	04/18/2021 14:12	WG1653280
(S) o-Terphenyl	*63.5*			*18.0-148*		*04/18/2021 14:12*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	04/15/2021 14:13	WG1652302

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	144		9.74	21.2	1	04/15/2021 23:03	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	04/18/2021 02:23	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*92.7*			*77.0-120*		*04/18/2021 02:23*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000522	0.00112	1	04/15/2021 05:37	WG1651716
Toluene	U		0.00145	0.00558	1	04/15/2021 05:37	WG1651716
Ethylbenzene	U	J3	0.000823	0.00279	1	04/15/2021 05:37	WG1651716
Total Xylenes	U		0.000983	0.00726	1	04/15/2021 05:37	WG1651716
(S) Toluene-d8	*117*			*75.0-131*		*04/15/2021 05:37*	WG1651716
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*04/15/2021 05:37*	WG1651716
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*04/15/2021 05:37*	WG1651716

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.24	J	1.70	4.23	1	04/18/2021 13:45	WG1653280
C28-C40 Oil Range	5.62	B	0.290	4.23	1	04/18/2021 13:45	WG1653280
(S) o-Terphenyl	*68.2*			*18.0-148*		*04/18/2021 13:45*	WG1653280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.6		1	04/15/2021 14:13	WG1652302

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	85.8		9.52	20.7	1	04/15/2021 23:32	WG1651745

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.103	1	04/18/2021 02:47	WG1653738
(S) a,a,a-Trifluorotoluene(FID)	*92.5*			*77.0-120*		*04/18/2021 02:47*	WG1653738

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000500	0.00107	1	04/15/2021 05:15	WG1651718
Toluene	U		0.00139	0.00535	1	04/15/2021 05:15	WG1651718
Ethylbenzene	U		0.000789	0.00268	1	04/15/2021 05:15	WG1651718
Total Xylenes	U		0.000942	0.00696	1	04/15/2021 05:15	WG1651718
(S) Toluene-d8	*106*			*75.0-131*		*04/15/2021 05:15*	WG1651718
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*04/15/2021 05:15*	WG1651718
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*		*04/15/2021 05:15*	WG1651718

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.14	1	04/18/2021 00:36	WG1653280
C28-C40 Oil Range	3.29	B J	0.284	4.14	1	04/18/2021 00:36	WG1653280
(S) o-Terphenyl	*67.3*			*18.0-148*		*04/18/2021 00:36*	WG1653280

Method Blank (MB)

(MB) R3642653-1 04/15/21 14:10

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1337066-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1337066-08 04/15/21 14:10 • (DUP) R3642653-3 04/15/21 14:10

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.6	78.7	1	0.0267		10

Laboratory Control Sample (LCS)

(LCS) R3642653-2 04/15/21 14:10

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

Method Blank (MB)

(MB) R3642744-1 04/15/21 15:52

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1337069-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1337069-09 04/15/21 15:52 • (DUP) R3642744-3 04/15/21 15:52

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.9	96.5	1	0.646		10

Laboratory Control Sample (LCS)

(LCS) R3642744-2 04/15/21 15:52

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3642742-1 04/15/21 14:25

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1337069-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1337069-20 04/15/21 14:25 • (DUP) R3642742-3 04/15/21 14:25

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.6	94.7	1	0.0691		10

Laboratory Control Sample (LCS)

(LCS) R3642742-2 04/15/21 14:25

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3642704-1 04/15/21 14:13

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

L1337069-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1337069-27 04/15/21 14:13 • (DUP) R3642704-3 04/15/21 14:13

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.5	95.2	1	0.703		10

Laboratory Control Sample (LCS)

(LCS) R3642704-2 04/15/21 14:13

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

Method Blank (MB)

(MB) R3643427-1 04/18/21 15:18

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

L1337069-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1337069-06 04/18/21 16:27 • (DUP) R3643427-3 04/18/21 16:36

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	39.1	105	1	91.6	P1	20

L1337069-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1337069-16 04/18/21 18:33 • (DUP) R3643427-4 04/18/21 18:50

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	376	356	1	5.63		20

Laboratory Control Sample (LCS)

(LCS) R3643427-2 04/18/21 15:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	193	96.7	90.0-110	

L1337069-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337069-16 04/18/21 18:33 • (MS) R3643427-5 04/18/21 19:18 • (MSD) R3643427-6 04/18/21 19:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	520	376	855	863	92.0	93.5	1	80.0-120			0.879	20

Method Blank (MB)

(MB) R3643113-1 04/15/21 20:51

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

L1337069-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1337069-26 04/15/21 22:44 • (DUP) R3643113-3 04/15/21 22:54

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	140	192	1	31.2	J3	20

Laboratory Control Sample (LCS)

(LCS) R3643113-2 04/15/21 21:00

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

Method Blank (MB)

(MB) R3643572-1 04/18/21 13:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3643572-2 04/18/21 15:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.94	89.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

Method Blank (MB)

(MB) R3643261-2 04/17/21 22:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.1*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3643261-1 04/17/21 21:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.48	99.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

L1337064-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337064-12 04/17/21 23:50 • (MS) R3643261-3 04/18/21 06:27 • (MSD) R3643261-4 04/18/21 06:49

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	149	U	137	140	92.3	94.3	25	10.0-151			2.11	28
(S) a,a,a-Trifluorotoluene(FID)					*110*	*111*		*77.0-120*				

Method Blank (MB)

(MB) R3643573-2 04/19/21 04:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.3*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3643573-1 04/19/21 03:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.96	108	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*77.0-120*	

Method Blank (MB)

(MB) R3641787-3 04/14/21 10:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*113*			*75.0-131*
(S) 4-Bromofluorobenzene	*88.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*95.5*			*70.0-130*

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

(LCS) R3641787-1 04/14/21 09:02 • (LCSD) R3641787-2 04/14/21 09:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.109	0.114	87.2	91.2	70.0-123			4.48	20
Ethylbenzene	0.125	0.117	0.125	93.6	100	74.0-126			6.61	20
Toluene	0.125	0.126	0.134	101	107	75.0-121			6.15	20
Xylenes, Total	0.375	0.348	0.365	92.8	97.3	72.0-127			4.77	20
(S) Toluene-d8				*114*	*115*	*75.0-131*				
(S) 4-Bromofluorobenzene				*96.6*	*98.3*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*107*	*106*	*70.0-130*				

L1337069-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337069-05 04/14/21 16:09 • (MS) R3641787-4 04/14/21 18:22 • (MSD) R3641787-5 04/14/21 18:41

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.137	U	0.0812	0.0632	59.3	46.1	1	10.0-149			25.1	37
Ethylbenzene	0.137	U	0.0852	0.0716	62.2	52.2	1	10.0-160			17.3	38
Toluene	0.137	U	0.0883	0.0736	64.4	53.7	1	10.0-156			18.2	38
Xylenes, Total	0.411	0.00150	0.206	0.171	49.8	41.2	1	10.0-160			18.6	38
(S) Toluene-d8					*108*	*108*		*75.0-131*				
(S) 4-Bromofluorobenzene					*88.9*	*82.3*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*95.0*	*96.9*		*70.0-130*				

Method Blank (MB)

(MB) R3642088-3 04/14/21 13:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*110*			*75.0-131*
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

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

(LCS) R3642088-1 04/14/21 12:25 • (LCSD) R3642088-2 04/14/21 12:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.126	0.125	101	100	70.0-123			0.797	20
Ethylbenzene	0.125	0.133	0.135	106	108	74.0-126			1.49	20
Toluene	0.125	0.132	0.128	106	102	75.0-121			3.08	20
Xylenes, Total	0.375	0.375	0.388	100	103	72.0-127			3.41	20
(S) Toluene-d8				*105*	*105*	*75.0-131*				
(S) 4-Bromofluorobenzene				*98.3*	*101*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*116*	*117*	*70.0-130*				

L1337069-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337069-06 04/14/21 22:46 • (MS) R3642088-4 04/14/21 23:24 • (MSD) R3642088-5 04/14/21 23:43

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.147	U	0.113	0.0736	77.4	50.2	1	10.0-149		J3	42.6	37
Ethylbenzene	0.147	U	0.123	0.0762	83.9	52.0	1	10.0-160		J3	46.9	38
Toluene	0.147	U	0.121	0.0863	82.3	58.9	1	10.0-156			33.1	38
Xylenes, Total	0.440	U	0.337	0.236	76.6	53.8	1	10.0-160			35.1	38
(S) Toluene-d8					*104*	*109*		*75.0-131*				
(S) 4-Bromofluorobenzene					*96.9*	*95.4*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*107*	*108*		*70.0-130*				

Method Blank (MB)

(MB) R3642323-3 04/14/21 22:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*116*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

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

(LCS) R3642323-1 04/14/21 20:50 • (LCSD) R3642323-2 04/14/21 21:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.104	0.109	83.2	87.2	70.0-123			4.69	20
Ethylbenzene	0.125	0.123	0.123	98.4	98.4	74.0-126			0.000	20
Toluene	0.125	0.119	0.117	95.2	93.6	75.0-121			1.69	20
Xylenes, Total	0.375	0.361	0.379	96.3	101	72.0-127			4.86	20
(S) Toluene-d8				*116*	*111*	*75.0-131*				
(S) 4-Bromofluorobenzene				*106*	*112*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*101*	*107*	*70.0-130*				

L1337069-27 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337069-27 04/15/21 05:37 • (MS) R3642323-4 04/15/21 05:56 • (MSD) R3642323-5 04/15/21 06:14

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.138	U	0.0766	0.111	55.3	80.3	1	10.0-149			36.9	37
Ethylbenzene	0.138	U	0.0903	0.134	65.2	96.8	1	10.0-160		J3	38.9	38
Toluene	0.138	U	0.0905	0.131	65.3	94.4	1	10.0-156			36.4	38
Xylenes, Total	0.415	U	0.279	0.405	67.2	97.6	1	10.0-160			36.9	38
(S) Toluene-d8					*114*	*113*		*75.0-131*				
(S) 4-Bromofluorobenzene					*109*	*106*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*104*	*97.9*		*70.0-130*				

Method Blank (MB)

(MB) R3642252-2 04/15/21 03:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3642252-1 04/15/21 03:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.101	80.8	70.0-123	
Ethylbenzene	0.125	0.110	88.0	74.0-126	
Toluene	0.125	0.105	84.0	75.0-121	
Xylenes, Total	0.375	0.323	86.1	72.0-127	
(S) Toluene-d8			*104*	*75.0-131*	
(S) 4-Bromofluorobenzene			*106*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

L1337112-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337112-12 04/15/21 05:53 • (MS) R3642252-3 04/15/21 10:37 • (MSD) R3642252-4 04/15/21 10:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.112	0.000766	0.0884	0.118	59.1	79.4	1	10.0-149			29.0	37
Ethylbenzene	0.112	0.00288	0.0932	0.129	60.9	85.4	1	10.0-160			32.6	38
Toluene	0.112	0.00515	0.0905	0.126	57.6	81.3	1	10.0-156			32.6	38
Xylenes, Total	0.335	0.0161	0.292	0.386	62.3	83.5	1	10.0-160			27.7	38
(S) Toluene-d8					*101*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*101*	*102*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*102*	*99.2*		*70.0-130*				

Method Blank (MB)

(MB) R3643008-1 04/16/21 15:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	1.01	J	0.274	4.00
(S) o-Terphenyl	*59.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3643008-2 04/16/21 15:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.0	74.0	50.0-150	
(S) o-Terphenyl			*60.5*	*18.0-148*	

L1337064-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337064-09 04/16/21 23:08 • (MS) R3643008-3 04/16/21 23:21 • (MSD) R3643008-4 04/16/21 23:34

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	62.5	2.47	52.1	49.7	79.5	75.4	1	50.0-150			4.77	20
(S) o-Terphenyl					*31.9*	*34.6*		*18.0-148*				

Method Blank (MB)

(MB) R3643197-1 04/17/21 06:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*67.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3643197-2 04/17/21 07:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	39.5	79.0	50.0-150	
(S) o-Terphenyl			*74.3*	*18.0-148*	

L1337069-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337069-15 04/17/21 09:33 • (MS) R3643197-3 04/17/21 09:47 • (MSD) R3643197-4 04/17/21 10:00

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	52.5	U	36.0	34.5	68.5	65.8	1	50.0-150			4.19	20
(S) o-Terphenyl					*55.3*	*53.8*		*18.0-148*				

Method Blank (MB)

(MB) R3643208-1 04/17/21 21:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	0.672	J	0.274	4.00
(S) o-Terphenyl	*64.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3643208-2 04/17/21 22:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	45.0	90.0	50.0-150	
(S) o-Terphenyl			*52.1*	*18.0-148*	

L1337132-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337132-01 04/18/21 00:49 • (MS) R3643208-3 04/18/21 01:02 • (MSD) R3643208-4 04/18/21 01:15

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	67.9	2.36	54.6	61.4	76.8	86.9	1	50.0-150			11.8	20
(S) o-Terphenyl					*36.0*	*53.0*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

* 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 Analytical.

Analysis Request of Chain of Custody Record

Page : 1 of 3

Tetra Tech, Inc.

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

E110

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	VGEU 19-01 Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
	LIJ37069																																
-01	BH-10 (0'-1')	04/08/21			X				X			1	N	X		X												X						
-02	BH-10 (2'-3')	04/08/21			X				X			1	N	X		X												X						
-03	BH-10 (3'-4')	04/08/21			X				X			1	N	X		X												X						
-04	BH-10 (4'-5')	04/08/21			X				X			1	N	X		X												X						
-05	BH-11 (0'-1')	04/08/21			X				X			1	N	X		X												X						
-06	BH-11 (2'-3')	04/08/21			X				X			1	N	X		X												X						
-07	BH-11 (3'-4')	04/08/21			X				X			1	N	X		X												X						
-08	BH-11 (4'-5')	04/08/21			X				X			1	N	X		X												X						
-09	BH-12 (0'-1')	04/08/21			X				X			1	N	X		X												X						
-10	BH-12 (2'-3')	04/08/21			X				X			1	N	X		X												X						

Relinquished by: Joe Tyler	Date: 4.9.21	Time: 12:30	Received by:	Date: 4.9.21	Time: 12:30
Relinquished by:	Date: 4.9.21	Time: 1433	Received by: SGA	Date: 4.9.21	Time: 1433
Relinquished by:	Date:	Time:	Received by:	Date: 4-10-21	Time: 10:20

ORIGINAL COPY

LAB USE ONLY

Sample Temperature
2.3-1-2.2
A603

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Analysis Request of Chain of Custody Record

Page : 2 of 3

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	VGEU 19-01 Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
		YEAR: 2021																																
-11	BH-12 (3'-4')	04/08/21			X				X			1	N	X		X												X						
-12	BH-12 (4'-5')	04/08/21			X				X			1	N	X		X												X						
-13	BH-13 (0'-1')	04/08/21			X				X			1	N	X		X												X						
-14	BH-13 (2'-3')	04/08/21			X				X			1	N	X		X												X						
-15	BH-13 (3'-4')	04/08/21			X				X			1	N	X		X												X						
-16	BH-13 (4'-5')	04/08/21			X				X			1	N	X		X												X						
-17	BH-14 (0'-1')	04/08/21			X				X			1	N	X		X												X						
-18	BH-14 (2'-3')	04/08/21			X				X			1	N	X		X												X						
-19	BH-14 (3'-4')	04/08/21			X				X			1	N	X		X												X						
-20	BH-14 (4'-5')	04/08/21			X				X			1	N	X		X												X						

Relinquished by: Joe Tyler	Date: 4.9.21	Time: 12:30	Received by:	Date: 4.9.21	Time: 12:30
Relinquished by:	Date: 4.9.21	Time: 14:30	Received by: SwA	Date: 4.9.21	Time: 14:30
Relinquished by:	Date:	Time:	Received by:	Date: 4-10-21	Time: 10:20

ORIGINAL COPY

LAB USE ONLY

Sample Temperature 2.3-.1=2.2 #60

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Analysis Request of Chain of Custody Record

Page : 3 of 3

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	VGEU 19-01 Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-01840
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B / BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
LIJ37069																																		
-21	BH-15 (0'-1')	04/08/21			X				X			1	N	X		X												X						
-22	BH-15 (2'-3')	04/08/21			X				X			1	N	X		X												X						
-23	BH-15 (3'-4')	04/08/21			X				X			1	N	X		X												X						
-24	BH-15 (4'-5')	04/08/21			X				X			1	N	X		X												X						
-25	BH-16 (0'-1')	04/08/21			X				X			1	N	X		X												X						
-26	BH-16 (2'-3')	04/08/21			X				X			1	N	X		X												X						
-27	BH-16 (3'-4')	04/08/21			X				X			1	N	X		X												X						
-28	BH-16 (4'-5')	04/08/21			X				X			1	N	X		X												X						

Relinquished by:	Joe Tyler	Date: 4.9.21	Time: 12:30	Received by: Date: 4.9.21 Time: 12:30
Relinquished by:		Date: 4.9.21	Time: 14:30	Received by: Date: 4.7.21 Time: 1430
Relinquished by:		Date:	Time:	Received by: Date: 4-10-21 Time: 10:20

ORIGINAL COPY

LAB USE ONLY

Sample Temperature: 2.3 - 1 = 2.2 AbCF

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: COPTETRA	L1337069	
Cooler Received/Opened On: 4/10/21 Temperature:	2.2	
Received By: Delisha Kirkendoll		
Signature:		

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

APPENDIX E
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-01840	DESCRIPTION	View north. Site signage at pump jack.	1
	SITE NAME	VGEU 19-01 Flowline Release	7/16/2019

TETRA TECH, INC. PROJECT NO. 212C-MD-01840	DESCRIPTION	View southeast. Release area on the eastern side of the Site.	2
	SITE NAME	VGEU 19-01 Flowline Release	7/16/2019

TETRA TECH, INC. PROJECT NO. 212C-MD-01840	DESCRIPTION	View east. Area of release north/northwest of pump jack.	3
	SITE NAME	VGEU 19-01 Flowline Release	7/16/2019

TETRA TECH, INC. PROJECT NO. 212C-MD-01840	DESCRIPTION	View overhead. Repaired flowline at release source.	4
	SITE NAME	VGEU 19-01 Flowline Release	7/16/2019

TETRA TECH, INC. PROJECT NO. 212C-MD-01840	DESCRIPTION	View east. Southeastern portion of release area.	5
	SITE NAME	VGEU 19-01 Flowline Release	7/16/2019

APPENDIX F
NMSLO Seed Mixture Details

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

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

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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	21.1	100.0%
Totals for Area of Interest		**21.1**	**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

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

NMSLO Seed Mix Coarse (CS)

COARSE (CS) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Sand bluestem	VNS, Southern	2.0	F
Sideoats grama	Vaughn, El Reno	2.0	F
Blue grama	Hachita, Lovington	1.5	D
Little bluestem	Cimmaron, Pastura	1.5	F
Sand dropseed	VNS, Southern	1.0	S
Plains bristlegrass	VNS, Southern	0.75	D
Forbs:			
Parry penstemon	VNS, Southern	1.0	D
Desert globemallow	VNS, Southern	1.0	D
White prairieclover	Kaneb, VNS	0.5	D
Sulfur buckwheat	VNS, Southern	0.5	D
Shrubs:			
Fourwing saltbush	VNS, Southern	1.0	D
Skunkbush sumac	VNS, Southern	1.0	D
Common winterfat	VNS, Southern	1.0	F
Fringed sagewort	VNS, Southern	0.5	F
	Total PLS/acre	**18.25**	

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 is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow.
- If one species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NCH1903240708
District RP	1RP-5304
Facility ID	
Application ID	pCH1903241056

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Marvin Soriwei Title: Program Manager, Risk Management & Remediation

Signature: Date: 8/11/2021

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: Robert Hamlet Date: 11/30/2021

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

Signature: Robert Hamlet Date: 11/30/2021

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

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

CONDITIONS

Action 43418

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 43418
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Workplan/Remediation Plan is approved with the following conditions: Please make sure the floor confirmation samples are delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance for confirmation samples of 500 ft2 is approved. A deferral around critical infrastructure will need to be submitted after all possible contaminated soil is removed. Specifying exactly which sample points you are asking for a deferral on and the reason the contaminants cannot be removed. Only sample locations that are right adjacent to equipment and require a major deconstruction will be available for a deferral. Make sure all possible contaminated soil is removed before a deferral request is submitted to the OCD payment portal.	11/30/2021