SITE INFORMATION

Report Type: Work Plan NRM1931856084

General Site Information:						
Site:	**James A #12 Flowline Release**					
Company:	**ConocoPhillips**					
Section, Township and Range	**Unit Letter O/P**	**Sec. 2**	**T 22S**	**R 30E**		
Lease Number:	**Associated API No. 30-025-26761**					
County:	**Eddy**					
GPS:	**32.417242**			**-103.847278**		
Surface Owner:	**State**					
Mineral Owner:	**N/A**					
Directions:	Depart from Carlsbad, New Mexico. Head north on N Canal St toward W Stevens St for 305'. Turn right onto W Stevens St for 0.1 miles.Turn right onto N Main St for 0.2 miles. Turn left at the 3rd cross street onto US-180 E/US-62 E/E Greene St for 17.3 miles. Turn right onto NM-31 for 23.0 miles. Turn left onto Cimarron Rd for 4.5 miles. Slight right to stay on Cimarron Rd for 0.5 miles. Continue straight for 1.5 miles. Turn left for 0.4 miles. Turn right for 0.1 miles. Turn right for 0.1 miles. Site is to the east.					

Release Data:		
Date Released:	10/16/2019	
Type Release:	Produced Water	
Source of Contamination:	Flowline	
Fluid Released:	18 bbls	
Fluids Recovered:	0 bbls	

Official Communication:			
Name:	Marvin Soriwei		Christian M. 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:	(832) 486-2730		(512) 338-2861
Fax:			
Email:	Marvin.Soriwei@conocophillips.com		christian.llull@tetratech.com

Site Characterization	
Depth to Groundwater:	*262' 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:	*High*
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*	*--*	*100 mg/kg*	*600 mg/kg*

TETRA TECH

April 30, 2021

District Supervisor
Oil Conservation Division, District 2
811 S. First St.
Artesia, New Mexico 88210

Re: Release Characterization and Remediation Work Plan
ConocoPhillips
James A #12 Flowline Release
Unit Letter O/P, Section 2, Township 22 South, Range 30 East
Eddy County, New Mexico
2RP-5696
Incident ID NRM1931856084

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips to assess a release that occurred from a flowline associated with the James A #012 well (API No. 30-015-26761). The release footprint is located in Public Land Survey System (PLSS) Unit Letter O/P, Section 2, Township 22 South, Range 30 East, in Eddy County, New Mexico (Site). The approximate release point occurred at coordinates 32.417242°, -103.847278°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico Oil Conservation District (NMOCD) C-141 Initial Report, the release was discovered on October 16, 2019. The release occurred as the result of a flowline leak and reportedly encompassed an area of approximately 1,300 square feet (sf) of production pad. Approximately 18 barrels (bbls) of produced water were released, of which no volume of fluid was recovered. The New Mexico Oil Conservation District (NMOCD) received the initial C-141 on November 14, 2019 and subsequently assigned the release the Remediation Permit (RP) number 2RP-5696 and the Incident ID NRM1931856084. The initial C-141 form is included in Appendix A.

SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of high karst potential. Additionally, several streambodies were identified within ½ mile of the Site, but these have been identified as ephemeral drainage channels.

The Site is within a New Mexico oil and gas production area. According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within 800 meters (approximately ½ mile) of the Site. The search radius was expanded and based on available data from one (1) water well

Tetra Tech
901 West Wall St., Suite 100, Midland, TX 79701
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

located within 6,437 meters (approximately 4 miles) of the Site, the average depth to groundwater is 262 ft below ground surface (bgs). The site characterization data is included in Appendix B.

REGULATORY FRAMEWORK

A risk-based evaluation was performed for the Site in accordance with the NMOCD to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil. Based on the site characterization, the RRALs for the Site are as follows:

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

2019 SITE ASSESSMENT ACTIVITIES & SAMPLING RESULTS

On November 5, 2019, ConocoPhillips personnel were onsite to advance four (4) soil borings (SP #1 through SP #4), to a terminal depth of 8 ft bgs each. Soil borings were installed in the release area footprint to assess and define the extent of impacted soils. A total of twenty (20) soil samples were collected from the four borings and submitted to Cardinal Laboratories in Hobbs, NM to be analyzed for chloride via EPA Method SM4500Cl-B. The Site assessment sampling locations are shown in Figure 3.

Analytical results for chloride exceeded the Site RRAL of 600 mg/kg in all sample intervals from SP #1 and SP #2; in the surface sample interval collected from SP #3; and in the surface sample and the 8 ft bgs sample in SP #4. Table 1 summarizes the laboratory analytical results from the 2019 site assessment.

WORK PLAN SUBMITTAL AND REJECTION

Following the 2019 assessment, a Work Plan (Remediation Plan) was prepared by ConocoPhillips and submitted to NMOCD on January 13, 2020. The Remediation Plan reported the results of the initial assessment and provided an outline for the proposed closure actions for the Site.

The Work Plan was rejected via email by Cristina Eads, NMOCD, on February 27, 2020. Ms. Eads stated the plan was denied based on the following:

"• Benzene, BTEX, and TPH were not analyzed. At least one sample must be collected from the point of release and analyzed for Benzene, BTEX, and TPH. If concentrations of the aforementioned constituents are detected in the sample(s), delineation and confirmation samples will need to be collected and analyzed for all constituents listed in Table 1.

• The Remediation pages of the C-141 were not included with the submittal."

Copies of the Remediation Plan and denial email from the NMOCD are included in Appendix C.

ADDITIONAL SITE ASSESSMENT ACTIVITIES AND RESULTS

On behalf of ConocoPhillips, Tetra Tech personnel were onsite on July 21, 2020 to assess current site conditions and take photographs of the impacted area. During the site visit, visibly stained soils were observed in the immediate vicinity of the James A #12 well and within the reported release extent. Photographic documentation from the site visit is included in Appendix D.

On December 16, 2020 Tetra Tech personnel returned to the Site to advance six (6) soil borings to horizontally and vertically delineate the release extent. Two (2) borings (BH-1 and BH-2) were installed within the release extent using an air rotary drill rig to depths of 50 and 40 ft bgs, respectively. Four (4)

hand auger borings (BH-3 through BH-6) were installed outside the perimeter of the release extent to depths of 6 ft bgs. All samples were field screened for salinity using an ExTech EC400 ExStik and for total hydrocarbons using a photoionization detector (PID) to measure volatile organics.

A total of forty (40) samples were collected from the six (6) borings and submitted to Pace Analytical (Pace) to be analyzed for TPH (DRO and ORO) by EPA Method 8015, TPH Low Fraction (GRO) by EPA Method 8015D, BTEX by EPA Method 8260B, and chlorides by EPA Method 300.0. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix E. Sample locations are shown in Figure 4.

Results from the December 2020 soil sampling event are summarized in Table 2. Analytical results associated with vertical boring location BH-1 exceeded the Site RRAL for chloride of 600 mg/kg in the sample depth intervals to 40 ft bgs, and BH-2 exceeded the Site RRAL for chloride of 600 mg/kg in the sample depth intervals 0-5 ft bgs and 19-30 ft bgs. Additionally, analytical results associated with boring location B-3 (located north of the release point) exceeded the Site RRAL for chloride at all intervals tested, 0-1 ft through 6-7 ft bgs. Analytical results associated with boring locations B-3 and B-4 (located north and east of the release point) exceeded the Site RRAL for TPH at intervals 2-3 ft bgs and 0-1 ft bgs, respectively. Boring locations B-5 and B-6 did not exceed the Site RRALs in any of the sampled depths.

ADDITIONAL DELINEATION ACTIVITIES & SAMPLING RESULTS

Based on the results of the December 2020 site assessment activities, delineation of the release was determined incomplete. Additional soil sampling north of BH-3 and east of B-4 was conducted in order to fully characterize the horizontal extent of the release extent.

On March 1, 2021, Tetra Tech personnel returned to the Site to further delineate and sample the release area. A total of two (2) borings (BH-7 and BH-8) were installed using a hand auger to depths of 3 ft bgs. A total of four (4) samples were collected from the two (2) boring locations (BH-7 and BH-8) to the north and east of the well pad, respectively.

Collected samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Pace. The soil samples were analyzed for TPH (DRO and ORO) by EPA Method 8015, TPH Low Fraction (GRO) by EPA Method 8015D, BTEX by EPA Method 8260B, and chlorides by EPA Method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E.

The results the March 2021 sampling event are summarized in Table 2. Analytical results associated with the collected samples were below the established RRALs for TPH, BTEX and chlorides. The Site release extent has been vertically and horizontally delineated.

REMEDIATION WORK PLAN

Based on the analytical results, ConocoPhillips proposes to remove the remaining impacted material as shown in Figure 5. Impacted soils in the areas around sample locations BH-1, BH-2, and BH-3 will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a terminal depth of 4 ft below the surrounding surface or until a representative sample from the walls and bottom of the excavation is below the RRALs. Additionally, the areas around sample location BH-4 and the western edge of the release extent will be excavated to a depth of approximately 1 ft bgs. Any area containing pressurized lines will be hand-dug to a depth of 4 ft or the maximum extent practicable and heavy equipment will come no more than 3 ft from any pressurized lines.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation bottom and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is approximately 1,050 cubic yards.

VARIANCE REQUEST

After characterization of this release, ConocoPhillips proposes to leave soils (with chloride concentrations greater than those specified in 19.15.29 NMAC Table I) located below four (4) ft bgs in place. The contamination is fully delineated, groundwater in this area is below 200 ft bgs, and the release footprint is located in areas immediately under or around pipelines where any further excavation past 4 ft bgs could cause a major facility deconstruction, and/or additional unwanted impact to the environment. Additionally, the Site is located in an area with abundant potash reserves, and so naturally occurring soluble mineral salts such as sylvite (KCl) could lead to natural variations of chloride in the soils of the region. Given the naturally occurring mineral salts in soil concentrations at depth, there is little evidence that the elevated chloride concentrations observed at depth are attributable to the 2RP-5696 release.

Thus, in accordance with 19.15.29.14(A) NMAC, ConocoPhillips requests a variance for the placement of a liner within the excavated area. A 20-mil reinforced poly liner will be installed and properly seated throughout the base of the excavation (at 4 ft below surrounding grade). The liner will provide an engineering control that will serve as a barrier and inhibit the downward migration of residual constituents. The liner will be domed and overlap the release extent as to drain away precipitation to the outskirts.

ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 6. Twenty-two (22) confirmation floor samples and twenty-eight (28) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses a surface area of approximately 12,290 sf.

These confirmation sidewall and floor samples will be representative of no more than approximately 500 sf of excavated area. Confirmation samples will be sent to Pace for analysis of TPH (Method 8015 modified), BTEX (Method 8260B), and chloride (USEPA Method 300.0). Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade. The alternative confirmation sampling plan is shown in Figure 6.

SITE RECLAMATION AND RESTORATION PLAN

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

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

Sincerely,
Tetra Tech, Inc.

Christian M. Llull, P.G.
Project Manager

Greg W. Pope, P.G.
Program Manager

cc:
Mr. Marvin Soriwei, RMR – ConocoPhillips
Mr. Charles Beauvais, GPBU - ConocoPhillips

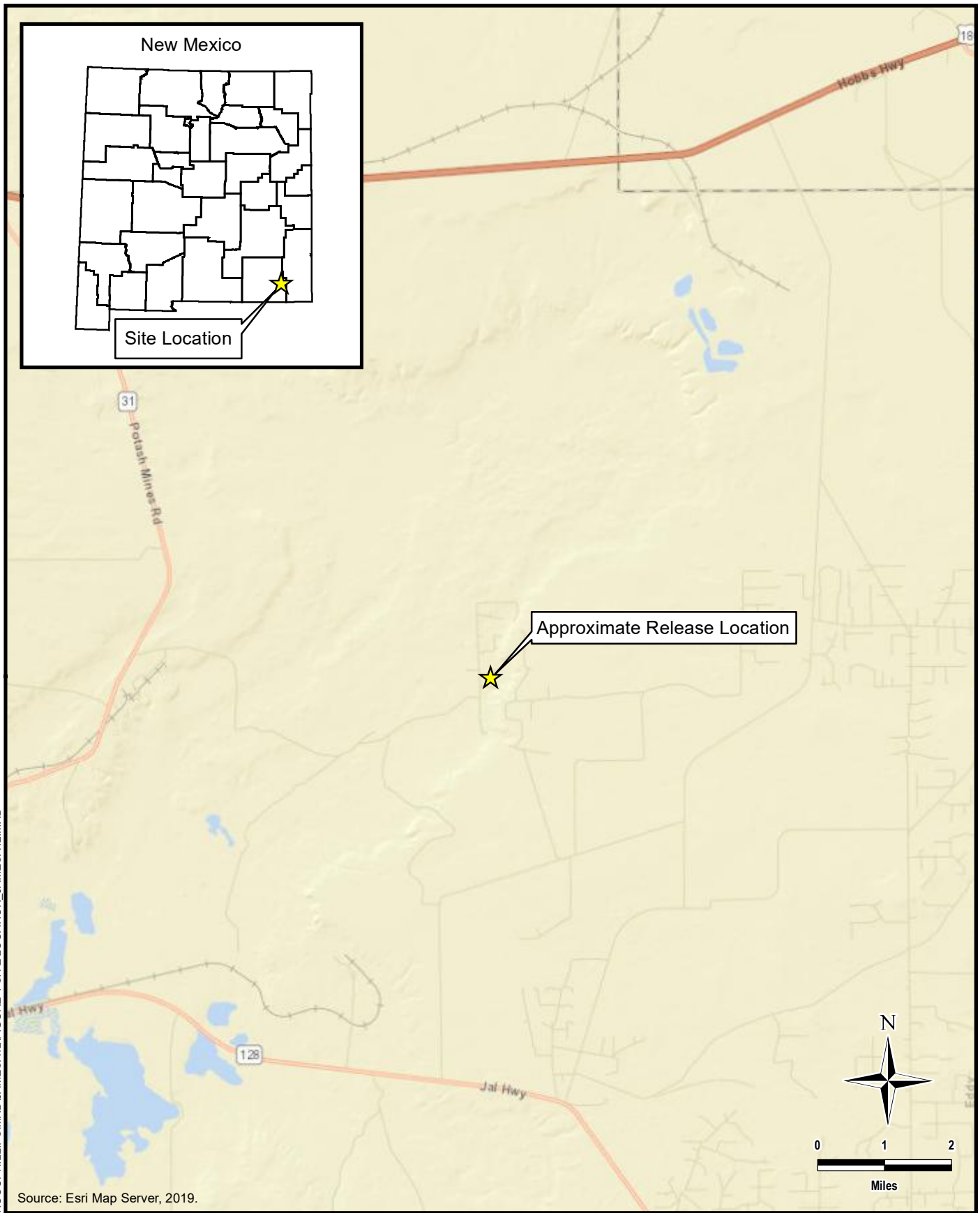
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\JAMESA12\FIGURE 1 SITE LOCATION_JAMESA12.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

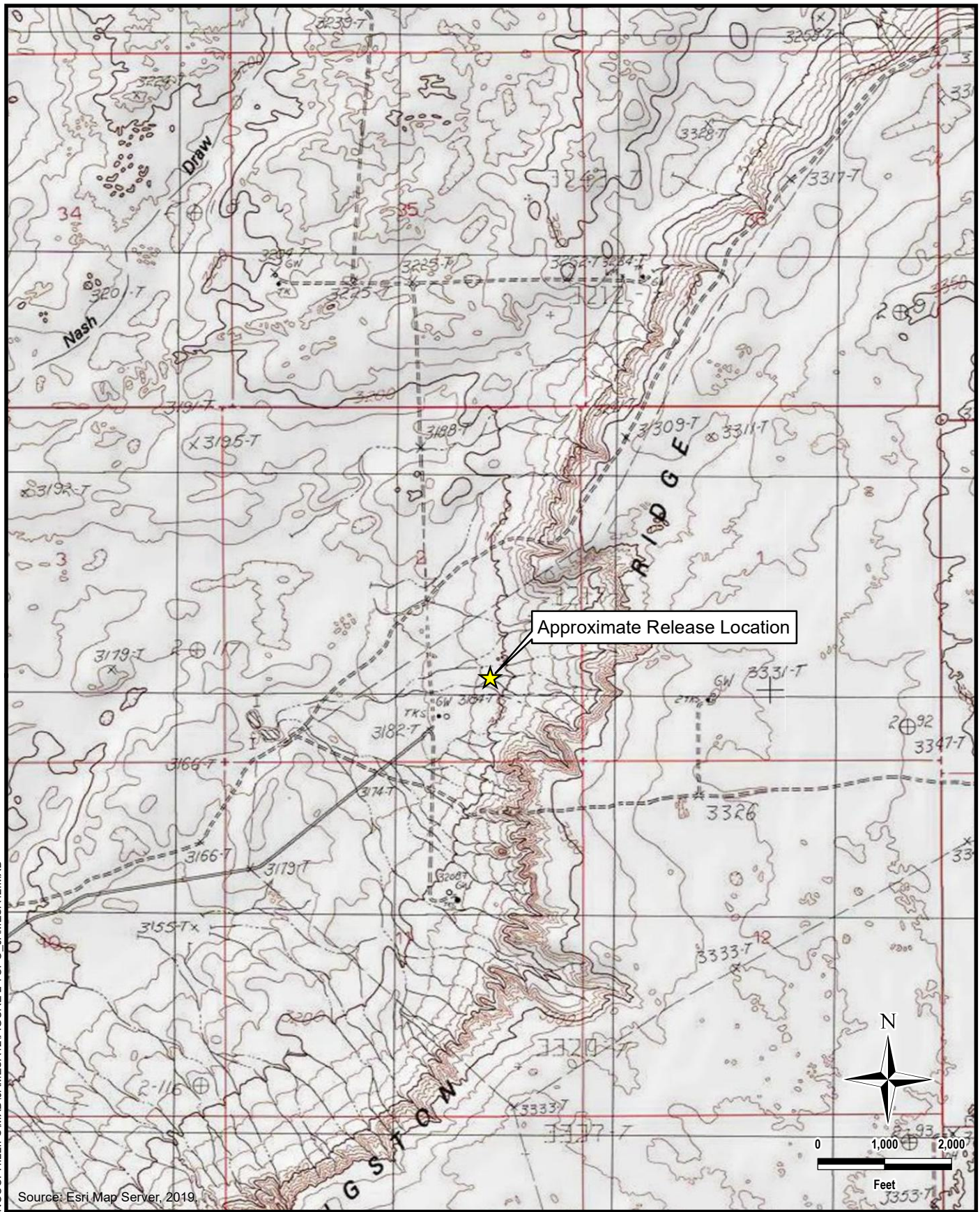
CONOCOPHILLIPS

2RP-5696/NRM1931856084
(32.417242°, -103.847278°)
LEA COUNTY, NEW MEXICO

JAMES A #12 FLOWLINE RELEASE
SITE LOCATION MAP

PROJECT NO.:	212C-MD-02366
DATE:	APRIL 08, 2021
DESIGNED BY:	AAM

Figure No.
1



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www.tetratech.com

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

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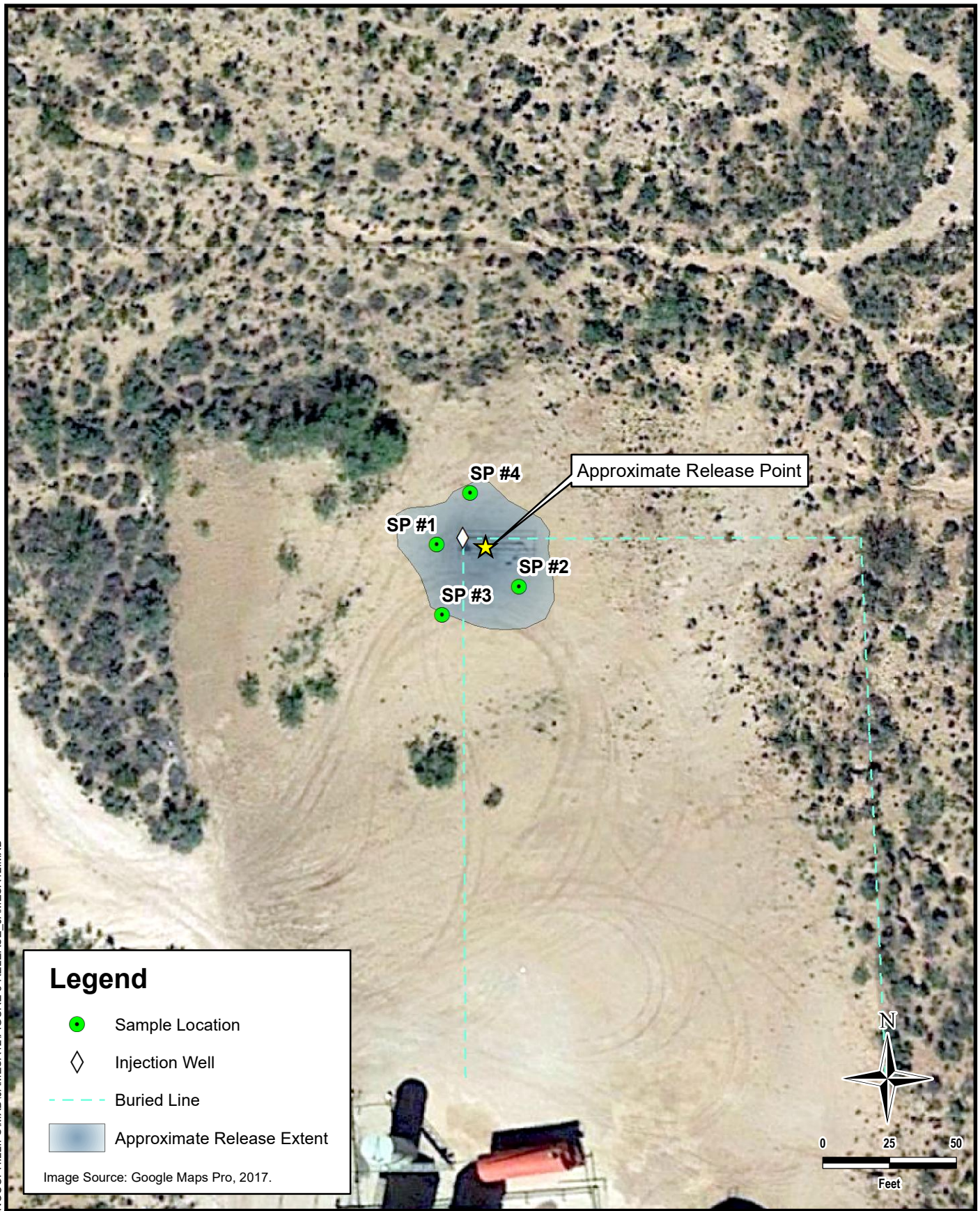
2RP-5696/NRM1931856084
(32.417242°, -103.847278°)
LEA COUNTY, NEW MEXICO

JAMES A #12 FLOWLINE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02366
DATE:	APRIL 08, 2021
DESIGNED BY:	AAM

Figure No.
2



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TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

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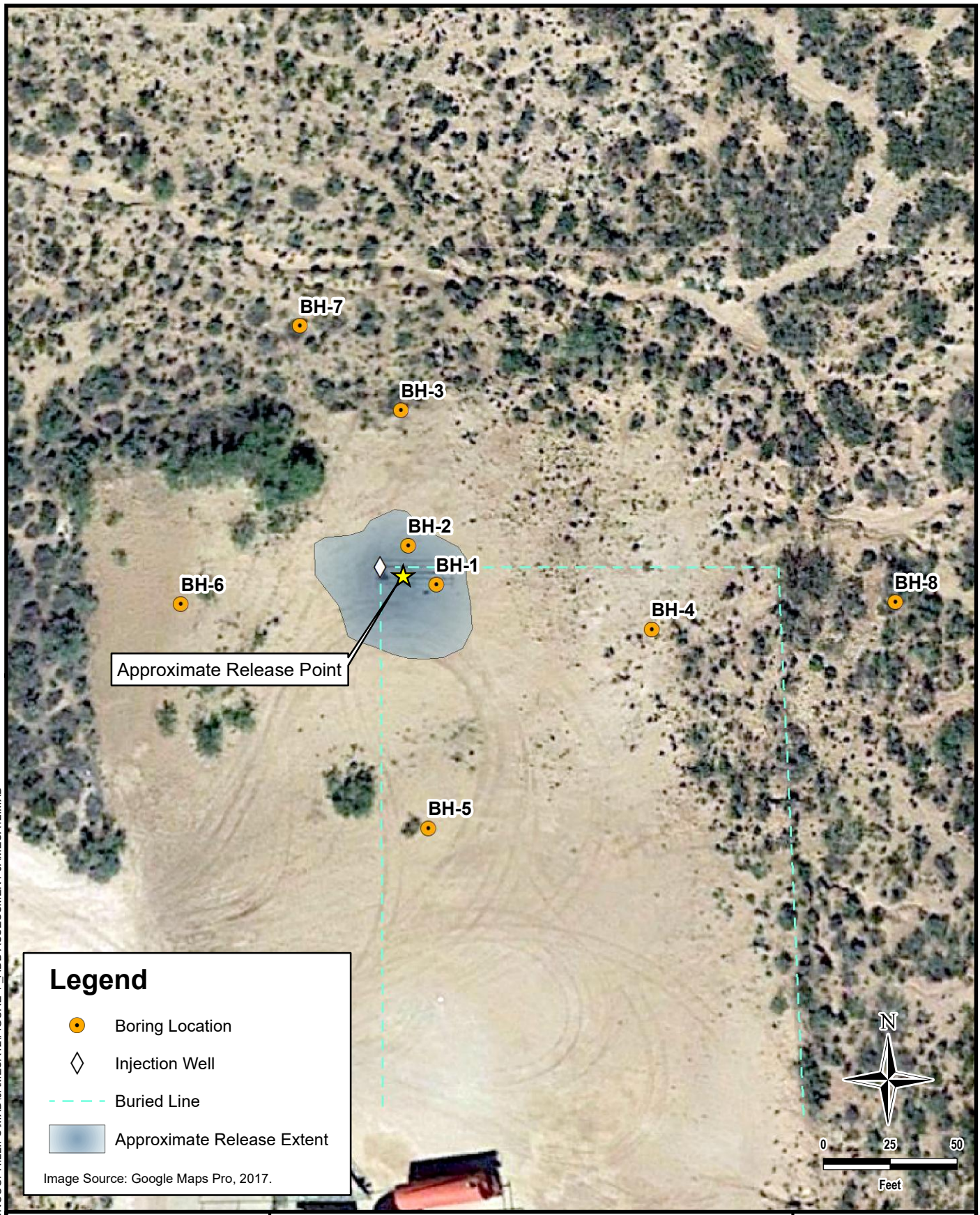
2RP-5696/NRM1931856084
(32.417242°, -103.847278°)
LEA COUNTY, NEW MEXICO

JAMES A #12 FLOWLINE RELEASE
APPROXIMATE RELEASE EXTENT AND INITIAL ASSESSMENT

PROJECT NO.:	212C-MD-02366
DATE:	APRIL 08, 2021
DESIGNED BY:	AAM

Figure No.
3



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www.tetratech.com

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

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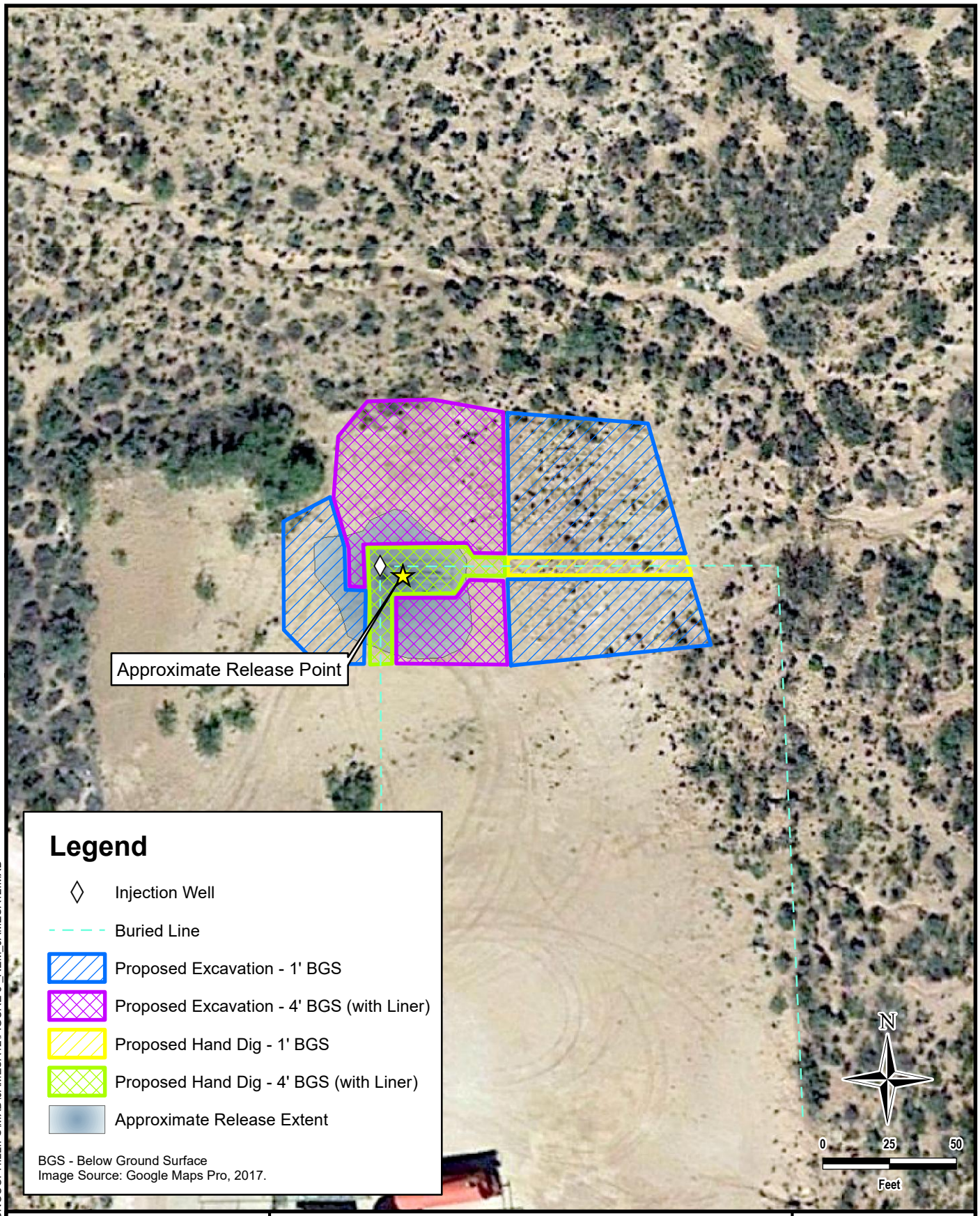
(32.417242°, -103.847278°)
LEA COUNTY, NEW MEXICO

JAMES A #12 FLOWLINE RELEASE
ADDITIONAL SITE ASSESSMENT

PROJECT NO.:	212C-MD-02366
DATE:	APRIL 08, 2021
DESIGNED BY:	AAM

Figure No.
4



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TETRA TECH

www.tetratech.com

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

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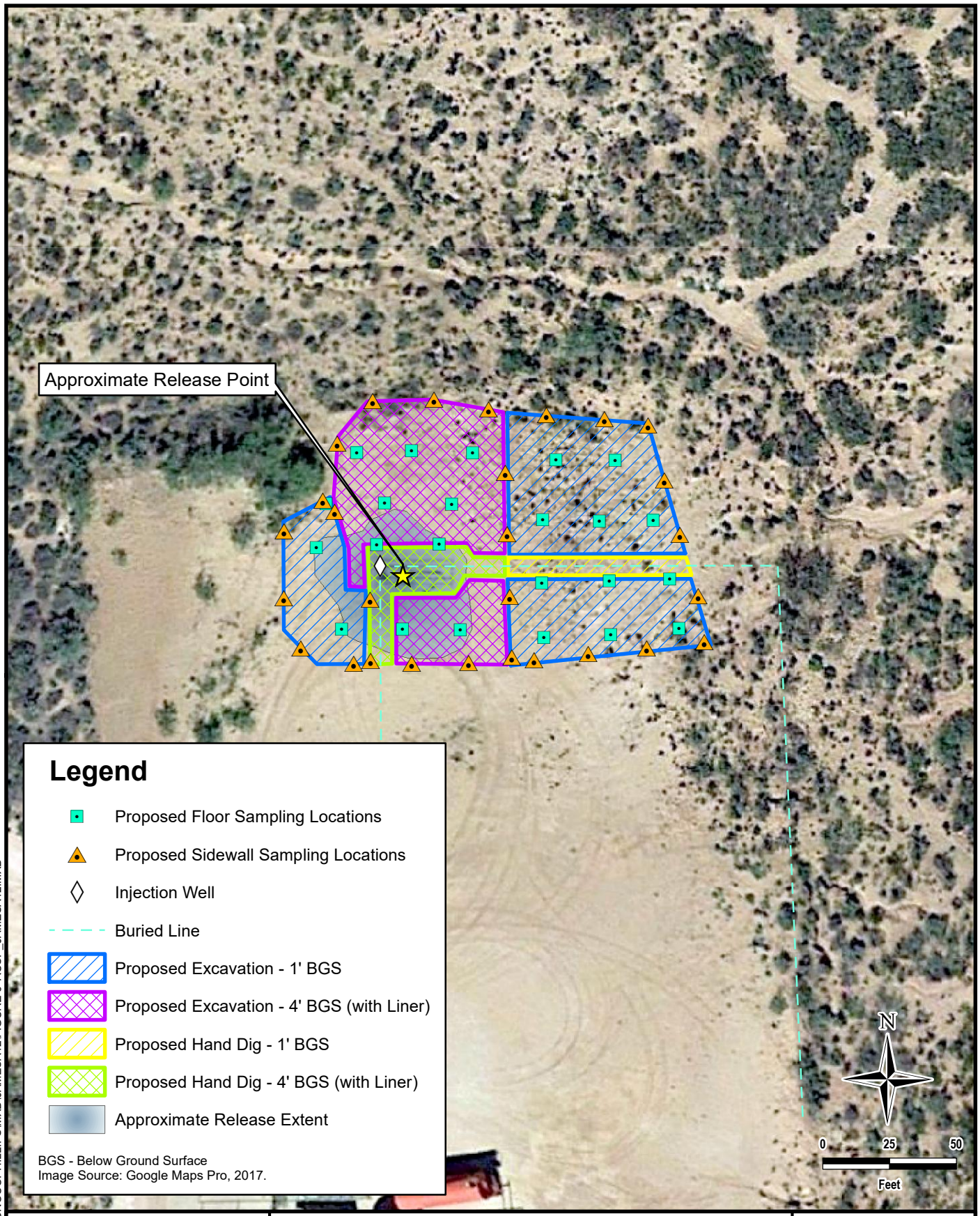
JAMES A #12 FLOWLINE RELEASE
PROPOSED REMEDIATION MAP

PROJECT NO.:	212C-MD-02366
DATE:	APRIL 08, 2021
DESIGNED BY:	AAM

Figure No.
5



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\JAMESA12\FIGURE 6 ACSP_JAMESA12.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

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2RP-5696/NRM1931856084
(32.417242°, -103.847278°)
LEA COUNTY, NEW MEXICO

JAMES A #12 FLOWLINE RELEASE
ALTERNATIVE CONFIRMATION SAMPLING PLAN

PROJECT NO.:	212C-MD-02366
DATE:	APRIL 08, 2021
DESIGNED BY:	AAM

Figure No.
6

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
INITIAL SOIL ASSESSMENT - NRM1931856084
CONOCOPHILLIPS
JAMES A #12 FLOWLINE RELEASE
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Chloride[1]	
		ft. bgs	mg/kg	Q
SP #1	11/5/2019	0.5	***31600***	
SP #1	11/5/2019	2	***1020***	
SP #1	11/5/2019	4	***640***	
SP #1	11/5/2019	6	***1840***	
SP #1	11/5/2019	8	***640***	
SP #2	11/5/2019	0.5	***15000***	
SP #2	11/5/2019	2	***1150***	
SP #2	11/5/2019	4	***1520***	
SP #2	11/5/2019	6	***1600***	
SP #2	11/5/2019	8	***1100***	
SP #3	11/5/2019	SURFACE	***2840***	
SP #3	11/5/2019	2	32	
SP #3	11/5/2019	4	48	
SP #3	11/5/2019	6	16	
SP #3	11/5/2019	8	16	
SP #4	11/5/2019	SURFACE	***2320***	
SP #4	11/5/2019	2	240	
SP #4	11/5/2019	4	64	
SP #4	11/5/2019	6	256	
SP #4	11/5/2019	8	***624***	

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

Bold and italicized values indicate exceedance of proposed RRALs

1 EPA Method SM4500Cl-B

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
ADDITIONAL SOIL ASSESSMENT - NRM1931856084
CONOCOPHILLIPS
JAMES A #12 FLOWLINE RELEASE
EDDY COUNTY, NM

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	
BH-1	12/16/2020	0-1	-	-	***3030***		< 0.00147		< 0.00736		< 0.00368		0.00139	J	0.00139		< 3.68		9.24		24.7		33.9	
		2-3	-	-	***725***		0.000989	J	0.00240	J	< 0.00354		0.00184	J	0.00523		< 3.54		< 4.33		1.10	J	1.10	
		4-5	-	-	***861***		< 0.00187		< 0.00935		< 0.00468		< 0.0122		-		< 4.68		< 4.30		< 4.30		-	
		6-7	-	-	***1100***		< 0.00148		< 0.00739		< 0.00370		0.00156	J	0.00156		< 3.70		< 4.29		< 4.29		-	
		9-10	-	-	***1760***		< 0.00202		< 0.0101		< 0.00506		< 0.0131		-		< 5.06		< 4.27		< 4.27		-	
		14-15	-	-	***2580***		< 0.00129		< 0.00647		< 0.00323		< 0.00841		-		< 3.23		< 4.33		< 4.33		-	
		19-20	981	-	***3590***		< 0.00176		< 0.00880		< 0.00441		< 0.0115		-		< 4.41		< 4.33		< 4.33		-	
		24-25	-	-	***4010***		< 0.00186		< 0.00928		< 0.00464		< 0.0121		-		< 4.64		< 4.50		< 4.50		-	
		29-30	1200	-	***3220***		< 0.00175		0.00227	J	< 0.00437		< 0.0114		0.00227		< 4.37		< 4.56		0.881	J	0.881	
		34-35	-	-	***1900***		< 0.00155		< 0.00774		< 0.00387		< 0.0101		-		< 3.87		< 4.67		< 4.67		-	
		39-40	890	-	***976***		< 0.00209		< 0.0104		< 0.00521		< 0.0135		-		< 5.21		< 4.71		< 4.71		-	
		44-45	-	-	248		< 0.00177		< 0.00886		< 0.00443		< 0.0115		-		< 4.43		< 4.62		< 4.62		-	
		49-50	201	0.8	200		< 0.00156		< 0.00779		< 0.00390		< 0.0101		-		< 3.90		< 4.70		< 4.70		-	
BH-2	12/16/2020	0-1	-	-	***3240***		< 0.00137		< 0.00687		< 0.00344		< 0.00893		-		< 3.44		4.06	J	17.3		21.4	
		2-3	-	-	***843***		< 0.00124		< 0.00618		< 0.00310		< 0.00804		-		< 3.09		< 4.16		< 4.16		-	
		4-5	-	-	***622***		0.000949	J	0.00288	J	< 0.00351		0.00228	J	0.00611		< 3.51		< 4.22		0.416	J	0.416	
		6-7	-	-	315		< 0.00125		0.00815	J	< 0.00313		0.00125	J	0.00940		< 3.13		< 4.29		< 4.29		-	
		9-10	-	-	512		< 0.00158		< 0.00792		< 0.00397		< 0.0103		-		< 3.97		< 4.19		< 4.19		-	
		14-15	-	-	518		< 0.00130		< 0.00648		< 0.00324		< 0.00842		-		< 3.24		< 4.21		0.539	J	0.539	
		19-20	-	720	***798***		< 0.00128		< 0.00642		< 0.00322		< 0.00835		-		< 3.20		< 4.29		0.356	J	0.356	
		24-25	-	-	***4090***		< 0.00143		< 0.00714		< 0.00357		< 0.00928		-		< 3.57		< 4.62		0.690	J	0.690	
		29-30	-	1100	***1470***		< 0.00204		0.00332	J	0.00199	J	0.00326	J	0.00857		< 5.10		< 4.44		0.775	J	0.775	
		34-35	-	-	267		< 0.00134		< 0.00669		< 0.00335		< 0.00871		-		< 3.35		< 4.56		0.388	J	0.388	
		39-40	0.4	140	191		< 0.00183		< 0.00916		< 0.00458		< 0.0119		-		< 4.58		< 4.76		< 4.76		-	
BH-3	12/16/2020	0-1	0.1	201	***1640***		< 0.00114		< 0.00571		< 0.00286		< 0.00742		-		< 2.86		< 4.10		5.58		5.58	
		2-3	0.3	105	***1160***		< 0.00115		< 0.00573		< 0.00286		< 0.00744		-		< 2.86		92.9		224		***317***	
		4-5	0.8	101	***2810***		< 0.00188		< 0.00941		< 0.00471		< 0.0122		-		< 4.71		< 4.38		3.49	J	3.49	
		6-7	-	98.7	***3750***		< 0.00144		< 0.00719		< 0.00360		< 0.00936		-		< 3.60		< 4.37		1.29	J	1.29	
BH-4	12/16/2020	0-1	0.8	216	477		< 0.00111		0.00947		0.00346		0.0152		0.0281		< 2.79		155		530		***685***	
		2-3	0.6	240	148		< 0.00130		0.00494	J	< 0.00325		0.00290	J	0.00784		< 3.26		22.4		66.9		89.3	
		4-5	0.5	180	343		< 0.00157		< 0.00785		< 0.00393		< 0.0102		-		< 3.93		9.25		31.6		40.9	
		6-7	0.9	99.5	537		< 0.00110		< 0.00550		< 0.00275		< 0.00715		-		< 2.75		7.40		28.2		35.6	
BH-5	12/16/2020	0-1	0.9	198	364		0.0236		0.151		0.0236		0.158		0.356		< 19.2		2.25	J	9.78		12.0	
		2-3	0.6	161	33.2		< 0.00106		< 0.00528		< 0.00264		< 0.00687		-		< 2.64		< 4.11		1.88	J	1.88	
		4-5	0.5	102	29.8		< 0.00136		< 0.00680		< 0.00340		< 0.00884		-		< 3.40		< 4.37		2.22	J	2.22	
		6-7	0.3	88.1	10.6	J	< 0.00125		< 0.00627		< 0.00314		< 0.00815		-		< 3.14		< 4.49		1.36	J	1.36	
BH-6	12/16/2020	0-1	0.6	126	291		0.000876	J	< 0.00923		< 0.00462		0.00365	J	0.00453		< 4.62		3.36	J	25.1		28.5	
		2-3	0.5	105	23.2		< 0.00103		< 0.00516		< 0.00258		< 0.00671		-		< 2.58		< 4.06		8.49		8.49	
		4-5	0.2	84.2	32.7		< 0.00147		< 0.00733		< 0.00367		< 0.00953		-		< 3.67		< 4.16		4.41		4.41	
		6-7	0.8	64.3	42.4		< 0.00170		< 0.00850		< 0.00425		< 0.0110		-		1.12	B J	< 4.15		2.29	J	3.41	
BH-7	3/1/2021	0-1	-	-	121		< 0.00108		< 0.00542		< 0.00271		< 0.00704		-		0.0328	B J	14.0		68.0		82.0	
		2-3	-	-	10.8	J	< 0.00110		< 0.00549		< 0.00275		< 0.00714		-		0.122	B	6.04		23.5		29.7	
BH-8	3/1/2021	0-1	-	-	30.6		< 0.00108		< 0.00540		< 0.00270		< 0.00702		-		0.0403	B J	4.42		22.7		27.2	
		2-3	-	-	12.6	J	< 0.00105		< 0.00524		< 0.00262		< 0.00682		-		0.0535	B J	6.76		22.2		29.0	

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics
ORO Oil range organics

Bold and italicized values indicate exceedance of proposed RRALs

Shaded rows indicate intervals proposed for excavation.

1 EPA Method 300.0
2 EPA Method 8260B
3 EPA Method 8015
4 EPA Method 8015D/GRO

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.

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	NRM1931856084
District RP	2RP-5696
Facility ID	fMAP1829545945
Application ID	pRM1931856493

OMSEV-191016-C-1410

Release Notification

Responsible Party

Responsible Party ConocoPhillips Company	OGRID 217817
Contact Name Gustavo Fejervary	Contact Telephone 432/210-7037
Contact email g.fejervary@cop.com	Incident # *(assigned by OCD)*
Contact mailing address	5735 SW 7000 Andrews, TX 79714

Location of Release Source

Latitude 32.4173279 Longitude -103.8466568
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JAMES A 12	Site Type Injection well
Date Release Discovered 10/16/19	API# *(if applicable)* 30-015-26761

Unit Letter	Section	Township	Range	County
P	02	22S	30E	Eddy

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) 18	Volume Recovered (bbls) 0
	Is the concentration of total dissolved solids (TDS) 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 flow line leak. on pad

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM1931856084
District RP	2RP-5696
Facility ID	fMAP1829545945
Application ID	pRM1931856493

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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☑ 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: Gustavo Fejervary
Title: Environmental Coordinator
Signature:
Date: 10/16/19
email: g.fejervary@cop.com
Telephone: 432/210-7037

OCD Only

Received by: Ramona Marcus
Date: 11/14/2019

2RP-5696

L48 Spill Volume Estimate Form

Facility Name & Number:	James A 12
Asset Area:	SENM Hobbs
Release Discovery Date & Time:	10/16/19 11:30AM
Release Type:	Produced Water
Provide any known details about the event:	Flow line leak on injection well

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?	On Pad - 10.5%; Off Pad - 15.12% soil spilled-fluid saturation factor
Has it rained at least a half inch in the last 24 hours?	Yes, On Pad - 8%; Off Pad - 13.57% soil spilled-fluid saturation factor; if No, use factors above.

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	25.0	25.0	12.00	10.50%	111.250	11.681			
Rectangle B	21.0	16.0	6.00	10.50%	29.904	3.140			
Rectangle C	21.0	15.0	6.00	10.50%	28.035	2.944			
Rectangle D					0.000	0.000			
Rectangle E					0.000	0.000			
Rectangle F					0.000	0.000			
Rectangle G					0.000	0.000			
Rectangle H					0.000	0.000			
Rectangle I					0.000	0.000			
Rectangle J					0.000	0.000			
					Total Volume Release:	17.765			

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

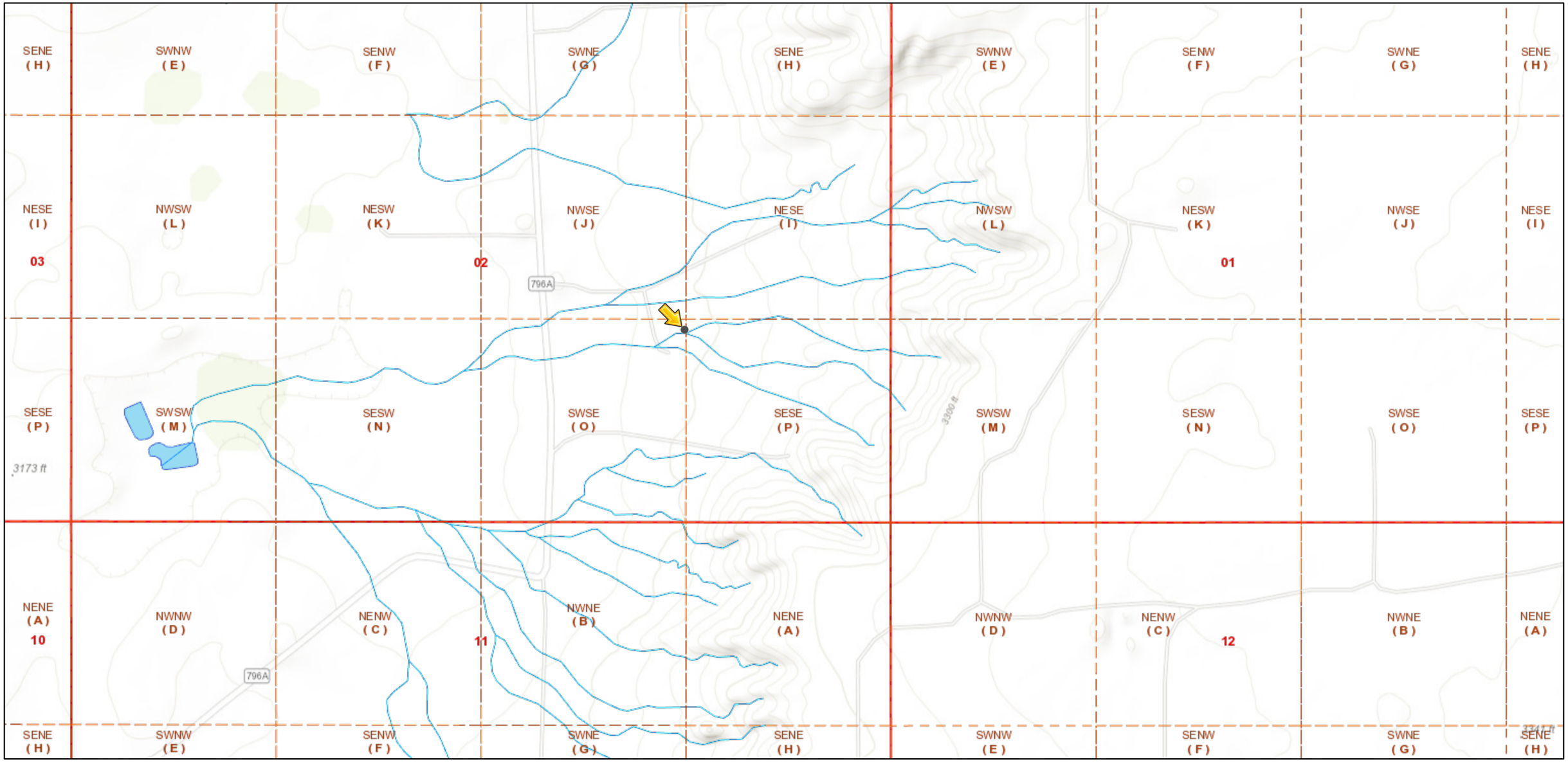
Received by: _____ Date: _____

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

Signature: _____ Date: _____

APPENDIX B
Site Characterization Data

James A #12 (2RP-5696)



3/26/2021, 11:36:13 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

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, 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

JAMES A 12
212C-MD-02366

Legend
- High
- JAMES A 12
- Low
- Medium

Bluestem Rd
360
243
W Carlsbad Hwy
176
JAMES A 12
31
N Loop Rd
W Pierce St
657
524
Carlsbad
285
E Wood Ave
216
706
128
Potash Mines Rd
740
Pecos Hwy
National Parks Hwy
Oak Rd
Loving
Jal Hwy
N
10 mi
Google Earth
© 2020 Google

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 608387 **Northing (Y):** 3587277 **Radius:** 800

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

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03234 EXPLORE	CUB	ED	1	2	3	35	21S	30E	607695	3589207*	2050	410		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 608387 **Northing (Y):** 3587277 **Radius:** 2400

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

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

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03234 EXPLORE	CUB	ED	1	2	3	35	21S	30E	607695	3589207*	2050	410		
C 03003	CUB	ED	3	1	3	31	21S	31E	610511	3588970*	2716	650		
C 02749	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	640		
C 02750	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	741		
C 02751	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	637		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 608387 **Northing (Y):** 3587277 **Radius:** 3200

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

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

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

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

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

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03234 EXPLORE	CUB	ED	1	2	3	35	21S	30E	607695	3589207*	2050	410		
C 03003	CUB	ED	3	1	3	31	21S	31E	610511	3588970*	2716	650		
C 02749	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	640		
C 02750	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	741		
C 02751	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	637		
C 03002	CUB	ED	4	2	4	06	22S	31E	611933	3587375*	3547	668		
C 02723	CUB	ED	2	2	3	15	22S	30E	606282	3584363*	3594	651		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 608387 **Northing (Y):** 3587277 **Radius:** 4000

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

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

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03234 EXPLORE	CUB	ED	1	2	3	35	21S	30E	607695	3589207*	2050	410		
C 03003	CUB	ED	3	1	3	31	21S	31E	610511	3588970*	2716	650		
C 02749	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	640		
C 02750	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	741		
C 02751	CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	637		
C 03002	CUB	ED	4	2	4	06	22S	31E	611933	3587375*	3547	668		
C 02723	CUB	ED	2	2	3	15	22S	30E	606282	3584363*	3594	651		
C 02950 EXPL	CUB	ED	4	2	4	23	22S	30E	608740	3582576*	4714	845		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 608387 **Northing (Y):** 3587277 **Radius:** 4800

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

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

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

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

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

POD Number		POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03234 EXPLORE		CUB	ED	1	2	3	35	21S	30E	607695	3589207*	2050	410		
C 03003		CUB	ED	3	1	3	31	21S	31E	610511	3588970*	2716	650		
C 02749		CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	640		
C 02750		CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	741		
C 02751		CUB	ED	1	1	1	18	22S	31E	610556	3585146*	3040	637		
C 03002		CUB	ED	4	2	4	06	22S	31E	611933	3587375*	3547	668		
C 02723		CUB	ED	2	2	3	15	22S	30E	606282	3584363*	3594	651		
C 02950 EXPL		CUB	ED	4	2	4	23	22S	30E	608740	3582576*	4714	845		
C 02637		CUB	ED	1	3	3	24	22S	30E	608950	3582377*	4932	759		
C 03773 POD1	C	CUB	ED	4	2	2	32	21S	30E	604039	3589799	5026	55		
C 03774 POD1	C	CUB	ED	2	4	2	32	21S	30E	604039	3589799	5026	32		
C 02748		CUB	ED	1	2	3	17	22S	31E	612576	3584364*	5102	3856		
C 03772 POD1	C	CUB	ED	2	4	2	32	21S	30E	603859	3589714	5142	30		
C 03772 POD2	C	CUB	ED	4	2	2	32	21S	30E	603850	3589707	5147	30		
C 03772 POD3	C	CUB	ED	4	2	2	32	21S	30E	603840	3589699	5151	30		
C 03772 POD5	C	CUB	ED	4	2	2	32	21S	30E	603823	3589681	5158	30		
C 03772 POD6	C	CUB	ED	4	2	2	32	21S	30E	603814	3589666	5159	30		
C 03772 POD8	C	CUB	ED	4	2	2	32	21S	30E	603797	3589636	5161	30		
C 03772 POD7	C	CUB	ED	4	2	2	32	21S	30E	603805	3589655	5162	30		
C 03772 POD4	C	CUB	ED	4	2	2	32	21S	30E	603824	3589692	5162	30		
C 03112 EXPLORE		CUB	ED	3	1	1	09	22S	31E	613753	3586590*	5409	3567		
C 03015		CUB	ED	1	4	3	22	22S	30E	606099	3582353*	5429	1316	262	1054
C 02683		CUB	ED	3	1	1	20	22S	31E	612184	3583356*	5458	840		
C 02682		CUB	ED	4	4	4	08	22S	31E	613566	3585379*	5515	4400		

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

Average Depth to Water: **262 feet**

Minimum Depth: **262 feet**

Maximum Depth: **262 feet**

Record Count: 24

UTMNAD83 Radius Search (in meters):

Easting (X): 608387 **Northing (Y):** 3587277 **Radius:** 5600

APPENDIX C
Remediation Plan & NMOCD Denial Email (2020)

From:	Eads, Cristina, EMNRD
To:	"Fejervary Morena, Gustavo A"
Cc:	Robert EMNRD Hamlet (Robert.Hamlet@state.nm.us); Victoria EMNRD Venegas (Victoria.Venegas@state.nm.us); Mike EMNRD Bratcher (mike.bratcher@state.nm.us)
Subject:	Remediation Plan Denial - James A 12 nRM193185684
Date:	Thursday, February 27, 2020 3:41:00 PM
Attachments:	(C-141 Remediation Plan Denied) - James A 12, nRM193185684.pdf

Gustavo,
The OCD has denied the submitted Remediation Plan C-141 for incident nRM193185684 (1RP-5696) for the following reasons:

- Benzene, BTEX, and TPH were not analyzed. At least one sample must be collected from the point of release and analyzed for Benzene, BTEX, and TPH. If concentrations of the aforementioned constituents are detected in the sample(s), delineation and confirmation samples will need to be collected and analyzed for all constituents listed in Table 1.
- The Remediation pages of the C-141 were not included with the submittal.

The Denied C-141 can be found in the online image database under the incident #. Please review and make the required corrections prior to resubmitting through the fee portal.

Please let me know if you have any questions.

Thanks,

Cristina Eads
Environmental Bureau
EMNRD – Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3084
email: Cristina.Eads@state.nm.us

January 13, 2020

Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First St.
Artesia, NM 88210

Remediation Plan Denied -
02/27/2020, Cristina Eads

emnrd-ocd-district2spills@state.nm.us
Re: Release Characterization Work Plan
ConocoPhillips
James A-12 Injection Well
Unit P, Section 2, Township 22 South, Range 30 East
Eddy County, New Mexico
2RP-5696

Dear Mr. Bratcher:
ConocoPhillips conducted the **James A-12** (Unit P, Section 22, Township 22 South, Range 30 East), in Eddy County, New Mexico (Site). The release site coordinates are 32.4173279, -103.8466568

History

As reported to the State of New Mexico via C-141 Initial Report, the release occurred on October 16, 2019, due to flowline leak, about 18 barrels of produced water were released and nothing was recovered.

Site Characterization

Even that the spill occurred on pad and did not created additional disturbance, 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. However, the site is in a high karst potential area. According to the New Mexico Office of the State Engineer (NMOSE) the groundwater is at 262 feet below ground surface. Assessments are attached.

Initial Site Assessment

ConocoPhillips delineated and sampled the release area on November 05, 2019. Four samples points were completed at surface, 6", 2', 4', 6' and 8' from surface to evaluate the vertical contamination caused by the release. all samples were analyzed for chloride contamination Copies are attached.

Sampling Results

The results of samples taken are summarized below on the table and map attached.

Corrective Action Plan

Based on the obtained results, ConocoPhillips requests your approval to remove contaminated soil as proposed below.

SP 1 area: We propose to remove contaminated soil down to 9' below ground level
SP 2 area: We proposed to remove contaminated soil down to 9' below ground level.
SP 3 area: We propose to remove contaminated soil down to 2' below ground level.
SP 4 area: We proposed to remove contaminated soil down to 2' below ground level.

Bottom and sidewall sampling will be conducted and submitted to NMOCD for verification of remedial activities and analyzed for chlorides.
About 18,000 cubic feet of contaminated soil will be removed and replaced with clean caliche

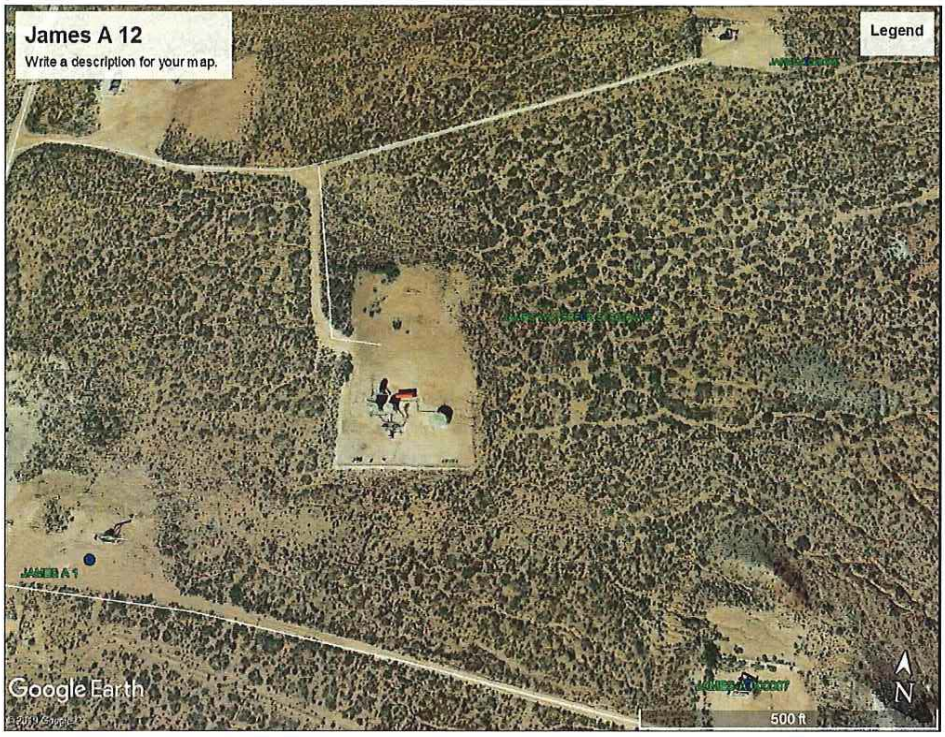
Conclusion

ConocoPhillips proposes to complete remediation within 90 days of this submittal. Once completed, we will submit closure report, accordingly.

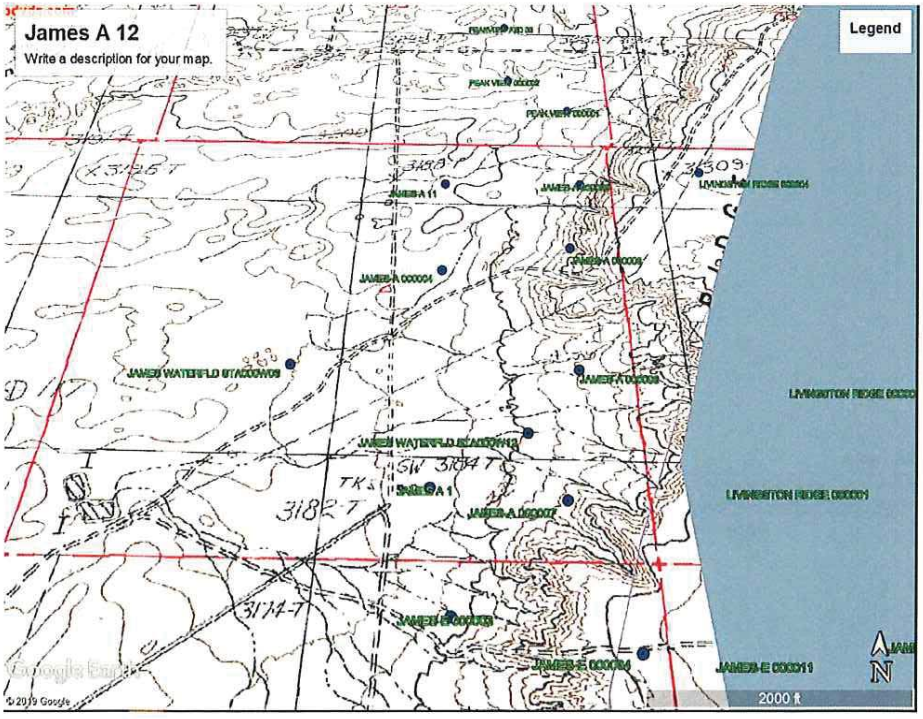
Regards,

Gustavo Fejervary.
Environmental Coordinator
432-210-7037

Overview Maps.



Topographic Map



Groundwater determination

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) (R=POD has been replaced, O=orphaned, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
C 03015	CUB	ED	1	4	3	22	22S	30E	606099	3582353*	1316	262	1054

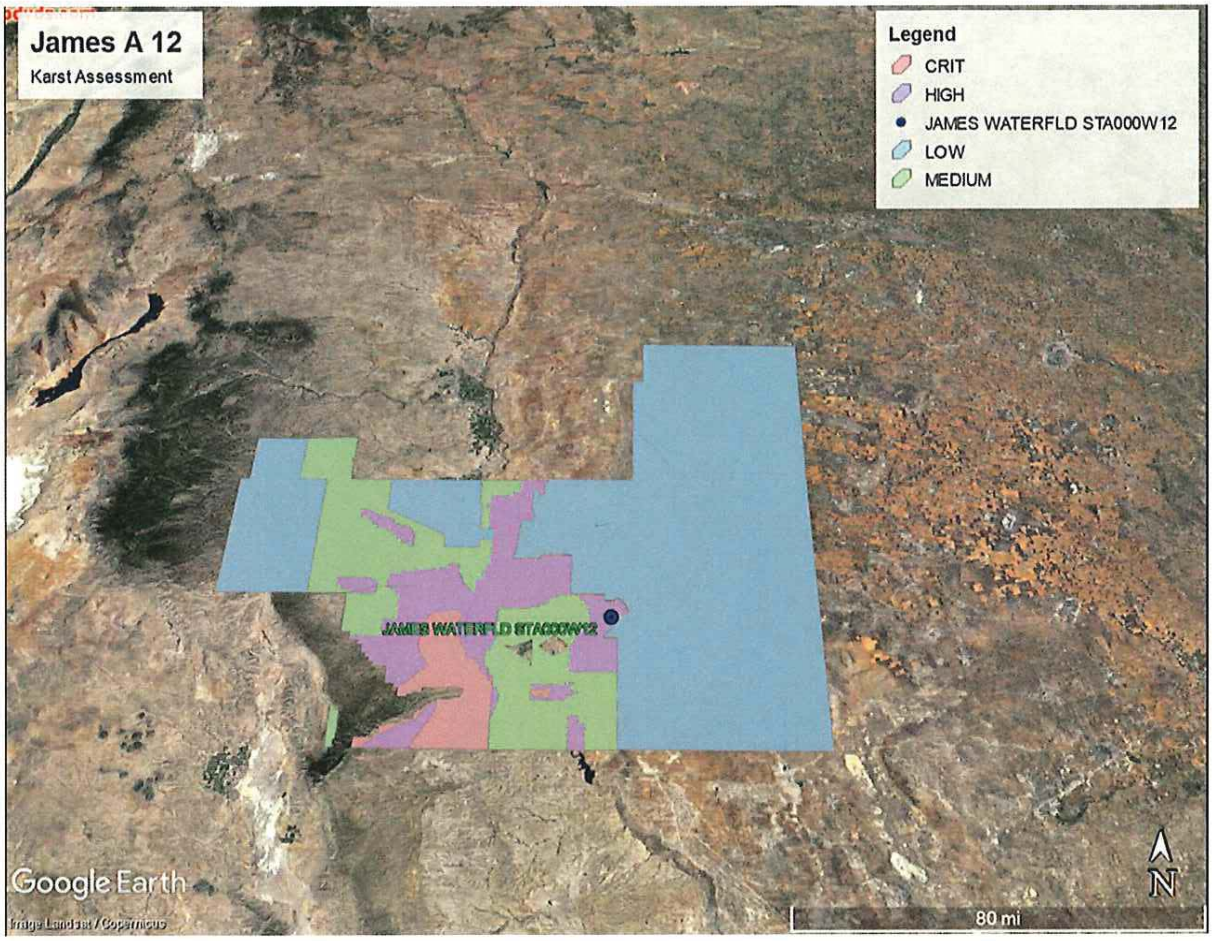
Average Depth to Water: 262 feet
Minimum Depth: 262 feet
Maximum Depth: 262 feet

Record Count: 1

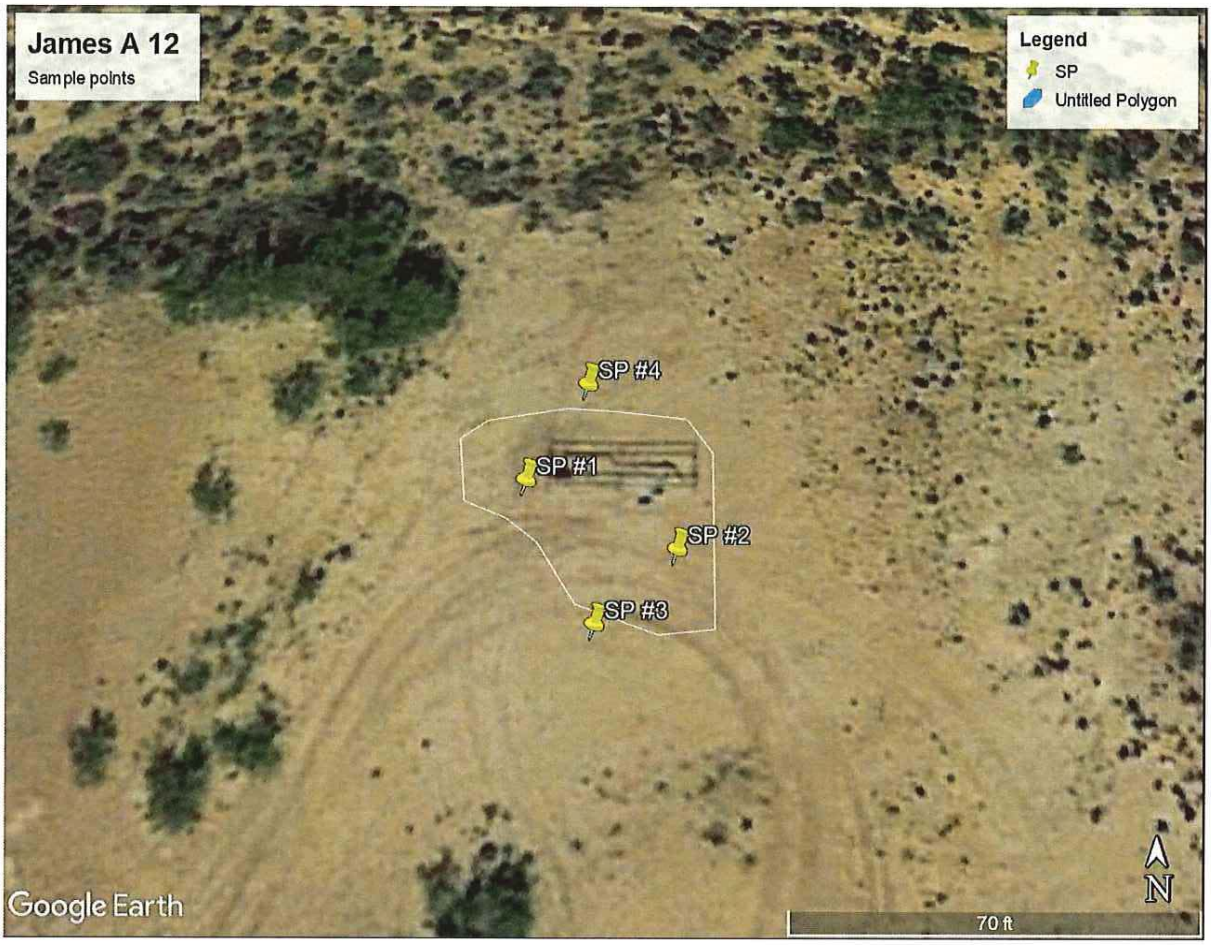
PLSS Search:
Section(s): 22 Township: 22S Range: 30E

*UTM location was derived from PLSS - see Help

Karst Assessment (High Potential)



Spill Area and Sample Points.

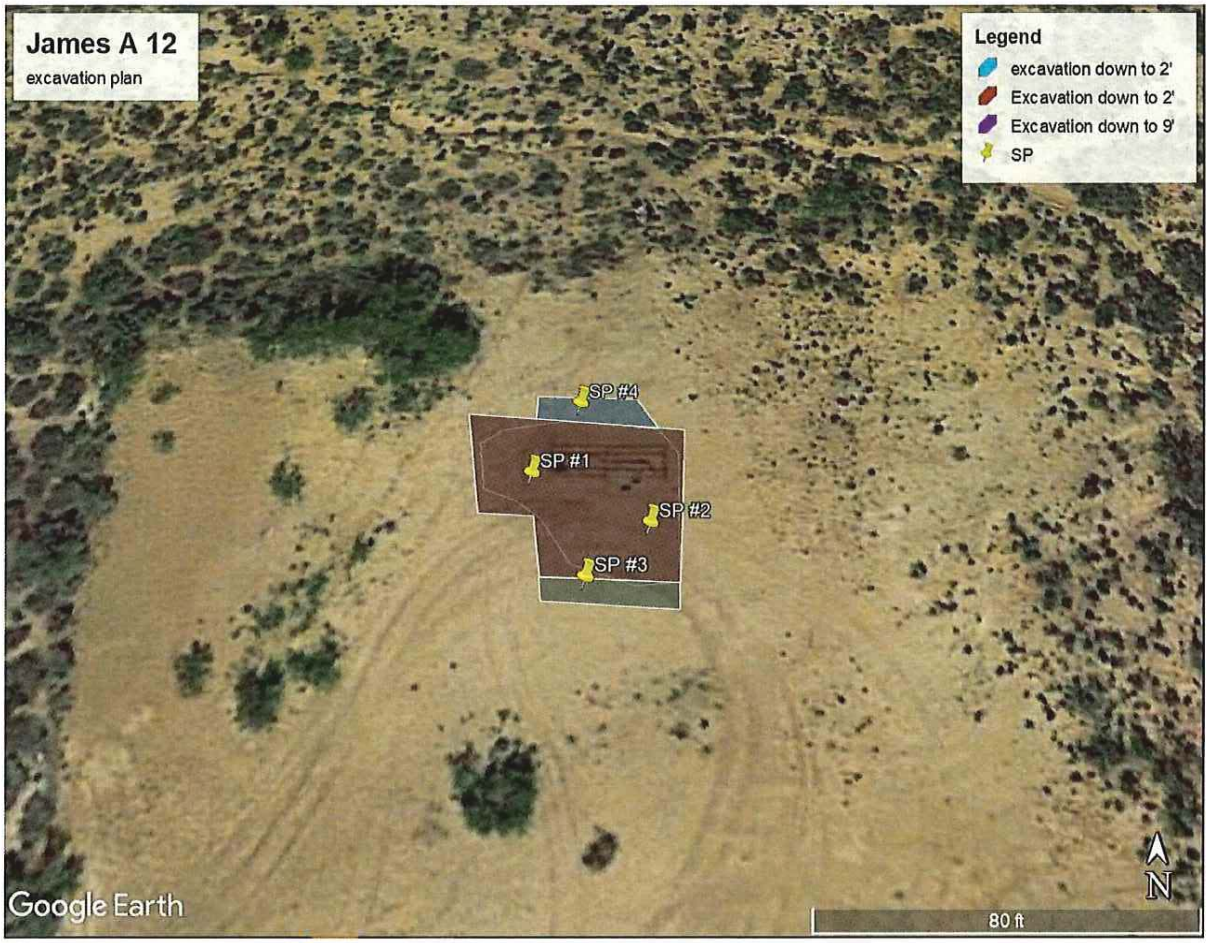


SAMPLE ID	SAMPLE DATE	SAMPLE INTERVAL	Chloride		To be remediated
		ft	mg/kg	Q	
SP #1	11/5/2019	6"	31600		YES
SP #1	11/5/2019	2'	1020		YES
SP #1	11/5/2019	4'	640		YES
SP #1	11/5/2019	6'	1840		YES
SP #1	11/5/2019	8'	640		YES
SP #2	11/5/2019	6"	15000		YES
SP #2	11/5/2019	2'	1150		YES
SP #2	11/5/2019	4'	1520		YES
SP #2	11/5/2019	6'	1600		YES
SP #2	11/5/2019	8'	1100		YES
SP #3	11/5/2019	Surface	2840		YES
SP #3	11/5/2019	2'	32		
SP #3	11/5/2019	4'	48		
SP #3	11/5/2019	6'	16		
SP #3	11/5/2019	8'	16		
SP #4	11/5/2019	Surface	2320		YES
SP #4	11/5/2019	2'	240		
SP #4	11/5/2019	4'	64		
SP #4	11/5/2019	6'	656		
SP #4	11/5/2019	8'	624		

Notes and Definitions

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-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.
RPD Relative Percent Difference
ND Analyte NOT DETECTED at or above the reporting limit

Excavation Plan.



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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party ConocoPhillips Company	OGRID 217817
Contact Name Gustavo Fejervary	Contact Telephone 432/210-7037
Contact email g.fejervary@cop.com	Incident # (assigned by OCD)
Contact mailing address	5735 SW 7000 Andrews, TX 79714

Location of Release Source

Latitude 32.4173279 Longitude -103.8466568
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JAMES A 12	Site Type Injection well
Date Release Discovered 10/16/19	API# (if applicable) 30-015-26761

Unit Letter	Section	Township	Range	County
P	02	22S	30E	Eddy

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) 18	Volume Recovered (bbls) 0
	Is the concentration of total dissolved solids (TDS) 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 flow line leak. on pad

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☑ 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: Gustavo Fejervary
Title: Environmental Coordinator
Signature:
Date: 10/16/19
email: g.fejervary@cop.com
Telephone: 432/210-7037

OCD Only

Received by:
Date:

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5696
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	262 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☑ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nRM1931856084
District RP	2RP-5696
Facility ID	
Application ID	

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

Printed Name: Gustavo Fejervary Title: Environmental Coordinator

Signature: Date: 01/14/20

email: g.fejervary@cop.com Telephone: 432/210-7037

OCD Only

Received by: Cristina Eads Date: 02/27/2020

CARDINAL Laboratories

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

November 08, 2019

JUSTIN WRIGHT

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: JAMES A #12

Enclosed are the results of analyses for samples received by the laboratory on 11/06/19 13:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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:	11/06/2019	Sampling Date:	11/05/2019
Reported:	11/08/2019	Sampling Type:	Soil
Project Name:	JAMES A #12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC - EDDY CO NM		

Sample ID: SP #1 - 6" (H903792-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**31600**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #1 - 2' (H903792-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1020**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #1 - 4' (H903792-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #1 - 6' (H903792-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1840**	16.0	11/07/2019	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/06/2019	Sampling Date:	11/05/2019
Reported:	11/08/2019	Sampling Type:	Soil
Project Name:	JAMES A #12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC - EDDY CO NM		

Sample ID: SP #1 - 8' (H903792-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #2 - 6" (H903792-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**15000**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #2 - 2' (H903792-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1150**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #2 - 4' (H903792-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1520**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #2 - 6' (H903792-09)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1600**	16.0	11/07/2019	ND	400	100	400	3.92	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/06/2019	Sampling Date:	11/05/2019
Reported:	11/08/2019	Sampling Type:	Soil
Project Name:	JAMES A #12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC - EDDY CO NM		

Sample ID: SP #2 - 8' (H903792-10)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #3 - SURFACE (H903792-11)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2840**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #3 - 2' (H903792-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	11/07/2019	ND	400	100	400	3.92	

Sample ID: SP #3 - 4' (H903792-13)

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	11/08/2019	ND	400	100	400	7.69	

Sample ID: SP #3 - 6' (H903792-14)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	11/08/2019	ND	400	100	400	7.69	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/06/2019	Sampling Date:	11/05/2019
Reported:	11/08/2019	Sampling Type:	Soil
Project Name:	JAMES A #12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC - EDDY CO NM		

Sample ID: SP #3 - 8' (H903792-15)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	11/08/2019	ND	400	100	400	7.69	

Sample ID: SP #4 - SURFACE (H903792-16)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2320**	16.0	11/08/2019	ND	400	100	400	7.69	

Sample ID: SP #4 - 2' (H903792-17)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	11/08/2019	ND	400	100	400	7.69	

Sample ID: SP #4 - 4' (H903792-18)

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	11/08/2019	ND	400	100	400	7.69	

Sample ID: SP #4 - 6' (H903792-19)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	11/08/2019	ND	400	100	400	7.69	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/06/2019	Sampling Date:	11/05/2019
Reported:	11/08/2019	Sampling Type:	Soil
Project Name:	JAMES A #12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COPC - EDDY CO NM		

Sample ID: SP #4 - 8' (H903792-20)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**624**	16.0	11/08/2019	ND	400	100	400	7.69	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	ConocoPhillips
Project Manager:	Justin Wright
Address:	
City:	Hobbs St NM Zip: #
Phone #:	575-631-9092 Fax #:
Project #:	Project Owner: COPC
Project Name:	James A 12
Project Location:	Eddy County, NM
Sampler Name:	Justin Wright

BILL TO

P.O. #:	
Company:	ConocoPhillips
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
H903792															
1	SP#1-6"	G				*					*		11-5		✓
2	SP#1-2'	G				*					*		11-5		✓
3	SP#1-4'	G				*					*		11-5		✓
4	SP#1-6'	G				*					*		11-5		✓
5	SP#1-8'	G				*					*		11-5		✓
6	SP#2-6"	G				*					*		11-5		✓
7	SP#2-2'	G				*					*		11-5		✓
8	SP#2-4'	G				*					*		11-5		✓
9	SP#2-6'	G				*					*		11-5		✓
10	SP#2-8'	G				*					*		11-5		✓

Relinquished By:	Date: 11-6-19 Time: 1:45 pm	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:
Delivered By: (Circle One)	Observed Temp. °C -1.6	Sample Condition: Cool ☑ Yes ☐ No, Intact ☑ Yes ☐ No	CHECKED BY: (Initials) TO
Sampler - UPS - Bus - Other:	Corrected Temp. °C -1.2		Turnaround Time: Standard ☑ Rush ☐
			Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No, Intact ☐ Yes ☐ No, Observed Temp. °C
			Thermometer ID #97 Correction Factor +0.4 °C, Corrected Temp. °C

FORM-006 R 3.0

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	ConocoPhillips	BILL TO	
Project Manager:	Justin Wright	P.O. #:	
Address:		Company:	ConocoPhillips
City:	Hobbs	St NM Zip: #	Attn:
Phone #:	575-631-9092	Fax #:	Address:
Project #:		Project Owner: COPC	City:
Project Name:	James A #12		State: Zip:
Project Location:	Eddy County, NM		Phone #:
Sampler Name:	Justin Wright		Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides
H903792															✓
11	SP#3-Surface	G				*					*		11-5		✓
12	SP#3-2'	G				*					*		11-5		✓
13	SP#3-4'	G				*					*		11-5		✓
14	SP#3-6'	G				*					*		11-5		✓
15	SP#3-8'	G				*					*		11-5		✓
16	SP#4-surface	G				*					*		11-5		✓
17	SP#4-2'	G				*					*		11-5		✓
18	SP#4-4'	G				*					*		11-5		✓
19	SP#4-6'	G				*					*		11-5		✓
20	SP#4-8'	G				*					*		11-5		✓

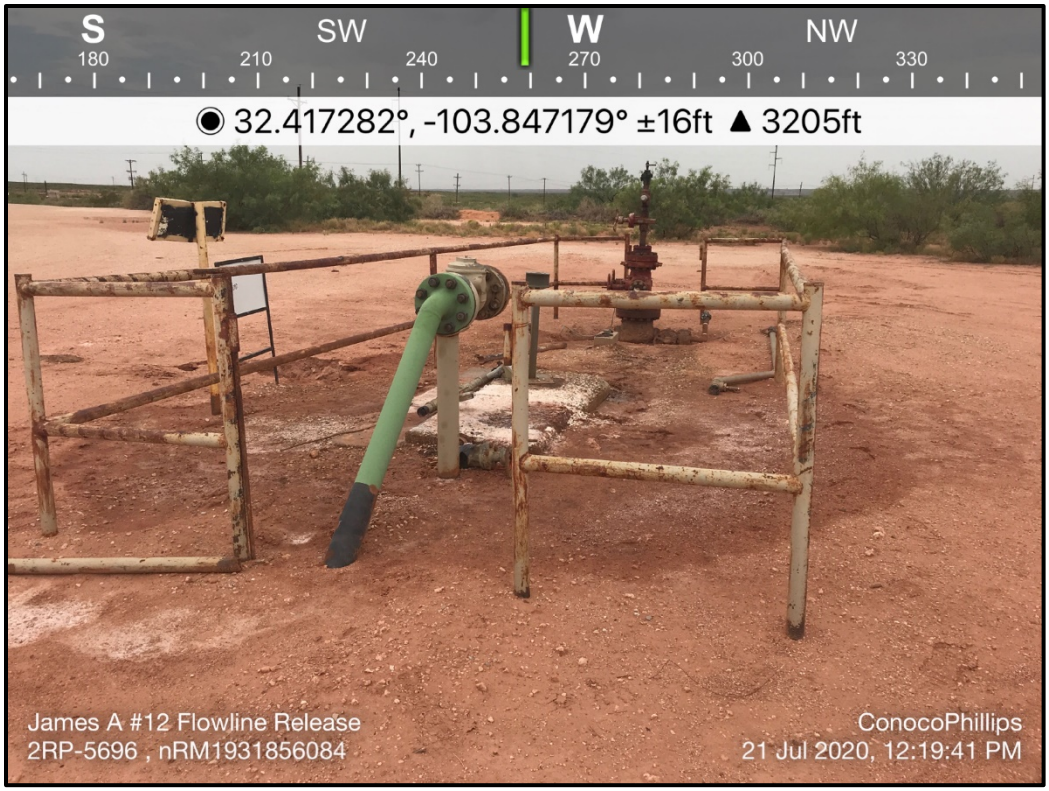
Relinquished By:	Date: 11-6-19 Time: 1:45 pm	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: REMARKS:

Delivered By: (Circle One)	Observed Temp. °C -1.6	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C -1.2	☑ Yes ☑ Yes ☐ No ☐ No	TC	Thermometer ID #97 Correction Factor +0.4 °C	☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

FORM-006 R 3.0

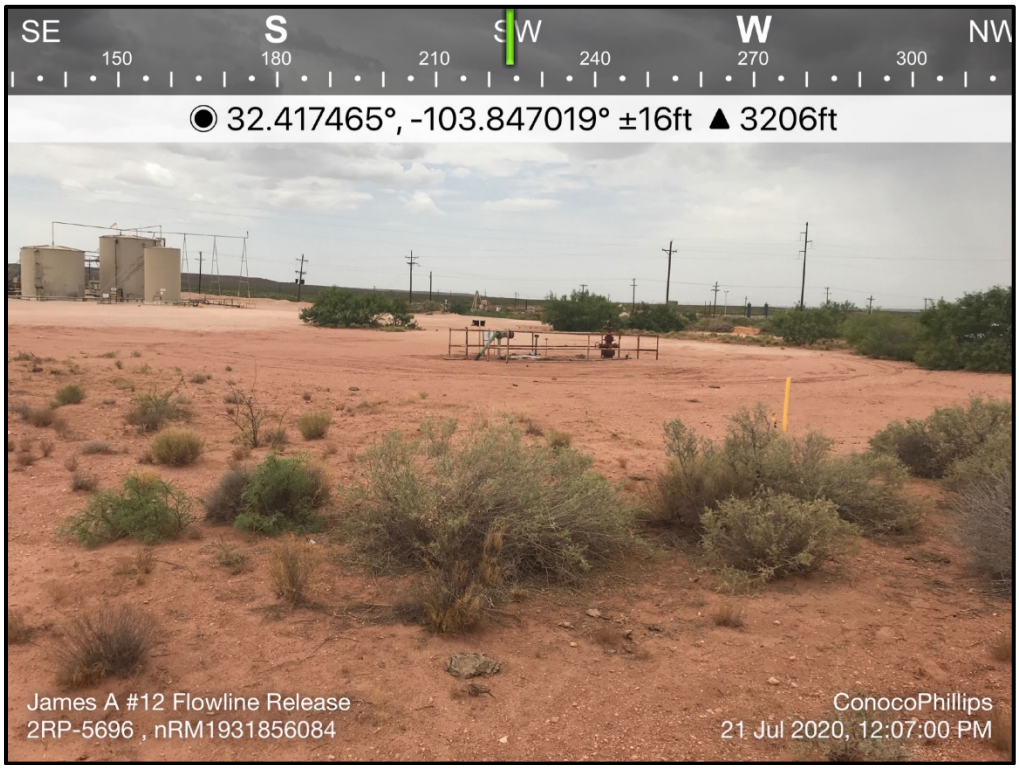
† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

APPENDIX D
Photographic Documentation



TETRA TECH, INC. PROJECT NO. 212C-MD-02366	DESCRIPTION	View west. 2RP-5696 release footprint.	1
	SITE NAME	James A #12 Flowline Release	7/21/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02366	DESCRIPTION	View south. 2RP-5696 release area.	2
	SITE NAME	James A #12 Flowline Release	7/21/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02366	DESCRIPTION	View SW. 2RP-5696 release area.	3
	SITE NAME	James A #12 Flowline Release	7/21/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02366	DESCRIPTION	View north. 2RP-5696 release area.	4
	SITE NAME	James A #12 Flowline Release	7/21/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02366	DESCRIPTION	View SE. Soil/caliche pile on production pad.	5
	SITE NAME	James A #12 Flowline Release	7/21/2020

APPENDIX E
Laboratory Analytical Data

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 04, 2021

ConocoPhillips - Tetra Tech

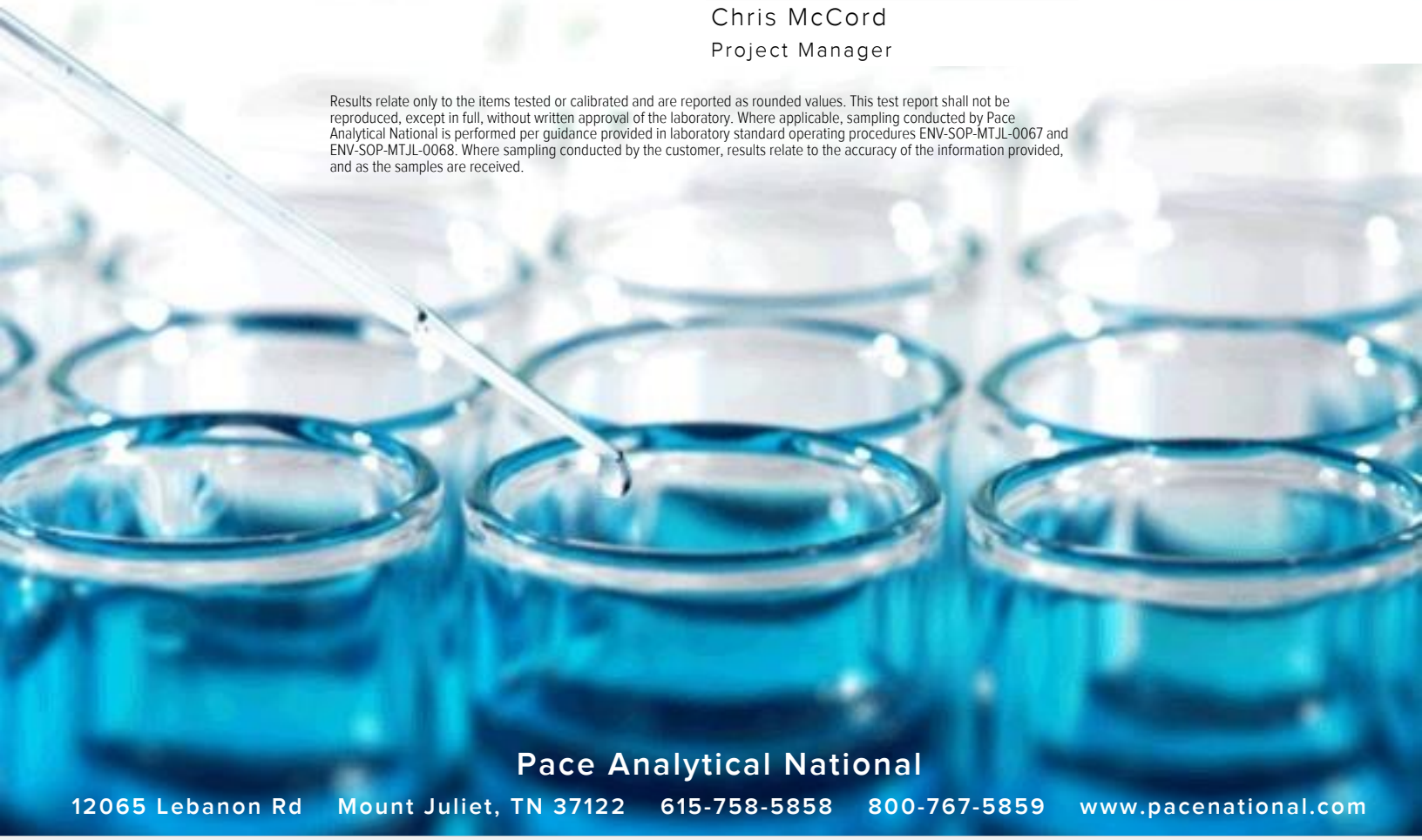
Sample Delivery Group:	L1299139
Samples Received:	12/19/2020
Project Number:	212C-MD-02366
Description:	James A #12 Injection Line Release AoC 7143

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.



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

BH-1 (0-1') L1299139-01 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 10:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598922	1	12/31/20 00:20	12/31/20 00:29	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	10	12/30/20 01:05	12/30/20 03:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	33.8	12/23/20 21:15	12/30/20 01:37	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.35	12/23/20 21:15	12/24/20 20:59	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 22:15	TJD	Mt. Juliet, TN

BH-1 (2-3') L1299139-02 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 10:10 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598922	1	12/31/20 00:20	12/31/20 00:29	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 03:27	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	30.8	12/23/20 21:15	12/30/20 01:57	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.23	12/23/20 21:15	12/24/20 21:18	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/31/20 01:18	TJD	Mt. Juliet, TN

BH-1 (4-5') L1299139-03 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 10:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598922	1	12/31/20 00:20	12/31/20 00:29	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 03:37	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	41.8	12/23/20 21:15	12/30/20 02:18	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.67	12/23/20 21:15	12/24/20 21:37	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 20:43	TJD	Mt. Juliet, TN

BH-1 (6-7') L1299139-04 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 10:30 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	5	12/30/20 01:05	12/30/20 03:46	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	32.8	12/23/20 21:15	12/30/20 02:39	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.31	12/23/20 21:15	12/24/20 21:56	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 20:56	TJD	Mt. Juliet, TN

BH-1 (9-10') L1299139-05 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 10:40 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	5	12/30/20 01:05	12/30/20 03:56	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	45.8	12/23/20 21:15	12/30/20 03:00	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.83	12/23/20 21:15	12/24/20 22:14	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 21:09	TJD	Mt. Juliet, TN

BH-1 (14-15') L1299139-06 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 10:50 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	10	12/30/20 01:05	12/30/20 04:05	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	28	12/23/20 21:15	12/30/20 03:20	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.12	12/23/20 21:15	12/24/20 22:34	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 21:22	TJD	Mt. Juliet, TN

BH-1 (19-20') L1299139-07 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 11:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	10	12/30/20 01:05	12/30/20 04:15	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	38.8	12/23/20 21:15	12/30/20 03:41	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.55	12/23/20 21:15	12/24/20 22:53	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 21:35	TJD	Mt. Juliet, TN

BH-1 (24-25') L1299139-08 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 11:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	10	12/30/20 01:05	12/30/20 04:47	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	38.5	12/23/20 21:15	12/30/20 04:02	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.54	12/23/20 21:15	12/24/20 23:11	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 20:17	TJD	Mt. Juliet, TN

BH-1 (29-30') L1299139-09 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 11:40 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	10	12/30/20 01:05	12/30/20 05:25	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	35.3	12/23/20 21:15	12/30/20 04:22	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.41	12/23/20 21:15	12/24/20 23:31	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598769	1	12/29/20 23:13	12/30/20 20:30	TJD	Mt. Juliet, TN

BH-1 (34-35') L1299139-10 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 12:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	5	12/30/20 01:05	12/30/20 05:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	29.5	12/23/20 21:15	12/30/20 04:43	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.18	12/23/20 21:15	12/24/20 23:50	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 03:18	JN	Mt. Juliet, TN

BH-1 (39-40') L1299139-11 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 12:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	5	12/30/20 01:05	12/30/20 05:44	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	40.5	12/23/20 21:15	12/30/20 05:04	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.62	12/23/20 21:15	12/25/20 00:09	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 03:30	JN	Mt. Juliet, TN

BH-1 (44-45') L1299139-12 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 12:40 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 05:53	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	35	12/23/20 21:15	12/30/20 05:24	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.4	12/23/20 21:15	12/25/20 00:28	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 03:43	JN	Mt. Juliet, TN

BH-1 (49-50') L1299139-13 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 13:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598923	1	12/30/20 13:57	12/30/20 14:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 06:03	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	29.5	12/23/20 21:15	12/30/20 05:45	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.18	12/23/20 21:15	12/25/20 00:47	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 03:05	JN	Mt. Juliet, TN

BH-2 (0-1') L1299139-14 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 13:10 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598924	1	12/30/20 13:18	12/30/20 13:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	10	12/30/20 01:05	12/30/20 06:12	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	32	12/23/20 21:15	12/30/20 06:06	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.28	12/23/20 21:15	12/25/20 01:06	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 04:21	JN	Mt. Juliet, TN

BH-2 (2-3') L1299139-15 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 13:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598924	1	12/30/20 13:18	12/30/20 13:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	5	12/30/20 01:05	12/30/20 06:41	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	28.7	12/23/20 21:15	12/30/20 06:26	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.15	12/23/20 21:15	12/25/20 01:25	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 01:49	JN	Mt. Juliet, TN

BH-2 (4-5') L1299139-16 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 13:30 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598924	1	12/30/20 13:18	12/30/20 13:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 06:50	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	32	12/23/20 21:15	12/30/20 06:47	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597130	1.28	12/23/20 21:15	12/25/20 01:44	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 02:02	JN	Mt. Juliet, TN

BH-2 (6-7') L1299139-17 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 13:40 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598924	1	12/30/20 13:18	12/30/20 13:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 07:00	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	27.5	12/23/20 21:15	12/30/20 07:08	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.1	12/23/20 21:15	12/24/20 12:18	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 02:14	JN	Mt. Juliet, TN

BH-2 (9-10') L1299139-18 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 13:50 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598924	1	12/30/20 13:18	12/30/20 13:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 07:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598607	36.8	12/23/20 21:15	12/30/20 07:28	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.47	12/23/20 21:15	12/24/20 12:37	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 01:11	JN	Mt. Juliet, TN

BH-2 (14-15') L1299139-19 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 14:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598924	1	12/30/20 13:18	12/30/20 13:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 07:19	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	29.5	12/23/20 21:15	12/30/20 00:05	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.18	12/23/20 21:15	12/24/20 12:55	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 02:27	JN	Mt. Juliet, TN

BH-2 (19-20') L1299139-20 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 14:10 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598924	1	12/30/20 13:18	12/30/20 13:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598695	1	12/30/20 01:05	12/30/20 07:28	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	28.2	12/23/20 21:15	12/30/20 00:27	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.13	12/23/20 21:15	12/24/20 13:14	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598770	1	12/29/20 23:07	12/31/20 02:40	JN	Mt. Juliet, TN

BH-2 (24-25') L1299139-21 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 14:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	10	12/30/20 01:45	12/30/20 08:26	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	27.5	12/16/20 14:20	12/30/20 00:50	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.1	12/16/20 14:20	12/24/20 13:33	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 21:05	JN	Mt. Juliet, TN

BH-2 (29-30') L1299139-22 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 14:40 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	5	12/30/20 01:45	12/30/20 08:45	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	43.5	12/16/20 14:40	12/30/20 01:12	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.74	12/16/20 14:40	12/24/20 14:38	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 21:18	JN	Mt. Juliet, TN

BH-2 (34-35') L1299139-23 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 15:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 08:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	26.3	12/16/20 15:00	12/30/20 01:34	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.05	12/16/20 15:00	12/24/20 14:56	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 21:32	JN	Mt. Juliet, TN

BH-2 (39-40') L1299139-24 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 15:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 09:04	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	34.5	12/16/20 15:20	12/30/20 01:57	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.38	12/16/20 15:20	12/24/20 15:15	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 21:45	JN	Mt. Juliet, TN

BH-3 (0-1') L1299139-25 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 16:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	5	12/30/20 01:45	12/30/20 09:13	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	27.3	12/16/20 16:00	12/30/20 02:19	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.09	12/16/20 16:00	12/24/20 15:34	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/30/20 00:11	JN	Mt. Juliet, TN

BH-3 (2-3') L1299139-26 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 16:10 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	5	12/30/20 01:45	12/30/20 09:23	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	25.5	12/16/20 16:10	12/30/20 02:42	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.02	12/16/20 16:10	12/24/20 15:53	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	5	12/28/20 23:26	12/30/20 01:31	JN	Mt. Juliet, TN

BH-3 (4-5') L1299139-27 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 16:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	10	12/30/20 01:45	12/30/20 09:32	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	40.8	12/16/20 16:20	12/30/20 04:44	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.63	12/16/20 16:20	12/24/20 16:12	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 21:58	JN	Mt. Juliet, TN

BH-3 (6-7') L1299139-28 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 16:30 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598205	1	12/29/20 12:52	12/29/20 12:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	10	12/30/20 01:45	12/30/20 10:01	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	30.8	12/16/20 16:30	12/30/20 05:07	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.23	12/16/20 16:30	12/24/20 16:31	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 22:12	JN	Mt. Juliet, TN

BH-4 (0-1') L1299139-29 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 16:40 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 10:10	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	26.8	12/16/20 16:40	12/30/20 05:29	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.07	12/16/20 16:40	12/24/20 16:49	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	10	12/28/20 23:26	12/30/20 01:44	JN	Mt. Juliet, TN

BH-4 (2-3') L1299139-30 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 16:50 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 10:20	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	29.8	12/16/20 16:50	12/30/20 05:51	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.19	12/16/20 16:50	12/24/20 17:08	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	5	12/28/20 23:26	12/30/20 01:17	JN	Mt. Juliet, TN

BH-4 (4-5') L1299139-31 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 17:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 10:48	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	37.3	12/16/20 17:00	12/30/20 06:13	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1.49	12/16/20 17:00	12/24/20 17:27	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/30/20 01:04	JN	Mt. Juliet, TN

BH-4 (6-7') L1299139-32 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 17:10 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 10:58	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	25	12/16/20 17:10	12/30/20 06:36	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597132	1	12/16/20 17:10	12/24/20 17:45	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/30/20 00:51	JN	Mt. Juliet, TN

BH-5 (0-1") L1299139-33 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 17:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 11:07	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	180	12/16/20 17:20	12/30/20 06:58	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	7.19	12/16/20 17:20	12/26/20 11:31	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/30/20 00:24	JN	Mt. Juliet, TN

BH-5 (2-3') L1299139-34 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 17:30 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 11:17	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	25	12/16/20 17:30	12/30/20 07:21	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	1	12/16/20 17:30	12/26/20 11:50	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 22:25	JN	Mt. Juliet, TN

BH-5 (4-5') L1299139-35 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 17:40 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 11:26	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	29	12/16/20 17:40	12/30/20 07:43	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	1.16	12/16/20 17:40	12/26/20 12:09	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 22:38	JN	Mt. Juliet, TN

BH-5 (6-7') L1299139-36 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 17:50 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 11:58	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	25	12/16/20 17:50	12/30/20 08:05	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	1	12/16/20 17:50	12/26/20 12:28	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 23:18	JN	Mt. Juliet, TN

BH-6 (0-1') L1299139-37 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 18:00 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 12:07	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	44.8	12/16/20 18:00	12/30/20 08:27	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	1.79	12/16/20 18:00	12/26/20 12:47	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/30/20 00:38	JN	Mt. Juliet, TN

BH-6 (2-3') L1299139-38 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 18:10 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598206	1	12/29/20 14:18	12/29/20 14:26	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 12:16	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598684	25	12/16/20 18:10	12/30/20 08:50	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	1	12/16/20 18:10	12/26/20 13:06	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 23:31	JN	Mt. Juliet, TN

BH-6 (4-5') L1299139-39 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 18:20 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598207	1	12/29/20 14:04	12/29/20 14:14	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 12:26	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598691	34.3	12/16/20 18:20	12/30/20 07:08	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	1.37	12/16/20 18:20	12/26/20 13:25	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 23:44	JN	Mt. Juliet, TN

BH-6 (6-7') L1299139-40 Solid

Collected by: Joe Tyler | Collected date/time: 12/16/20 18:30 | Received date/time: 12/19/20 10:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1598207	1	12/29/20 14:04	12/29/20 14:14	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1598696	1	12/30/20 01:45	12/30/20 12:35	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1598691	40	12/16/20 18:30	12/30/20 07:31	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1597581	1.6	12/16/20 18:30	12/26/20 13:44	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1598123	1	12/28/20 23:26	12/29/20 23:58	JN	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	95.1		1	12/31/2020 00:29	WG1598922

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	3030		96.7	210	10	12/30/2020 03:08	WG1598695

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		0.799	3.68	33.8	12/30/2020 01:37	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*77.0-120*		*12/30/2020 01:37*	WG1598607

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		0.000687	0.00147	1.35	12/24/2020 20:59	WG1597130
Toluene	U		0.00192	0.00736	1.35	12/24/2020 20:59	WG1597130
Ethylbenzene	U		0.00108	0.00368	1.35	12/24/2020 20:59	WG1597130
Total Xylenes	0.00139	J	0.00130	0.00956	1.35	12/24/2020 20:59	WG1597130
(S) Toluene-d8	*95.4*			*75.0-131*		*12/24/2020 20:59*	WG1597130
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*		*12/24/2020 20:59*	WG1597130
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*12/24/2020 20:59*	WG1597130

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	9.24		1.69	4.21	1	12/30/2020 22:15	WG1598769
C28-C40 Oil Range	24.7		0.288	4.21	1	12/30/2020 22:15	WG1598769
(S) o-Terphenyl	*98.8*			*18.0-148*		*12/30/2020 22:15*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.4		1	12/31/2020 00:29	WG1598922

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	725		9.96	21.6	1	12/30/2020 03:27	WG1598695

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		0.768	3.54	30.8	12/30/2020 01:57	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*77.0-120*		*12/30/2020 01:57*	WG1598607

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	0.000989	J	0.000660	0.00141	1.23	12/24/2020 21:18	WG1597130
Toluene	0.00240	J	0.00184	0.00707	1.23	12/24/2020 21:18	WG1597130
Ethylbenzene	U		0.00104	0.00354	1.23	12/24/2020 21:18	WG1597130
Total Xylenes	0.00184	J	0.00124	0.00919	1.23	12/24/2020 21:18	WG1597130
(S) Toluene-d8	*95.7*			*75.0-131*		*12/24/2020 21:18*	WG1597130
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*12/24/2020 21:18*	WG1597130
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*12/24/2020 21:18*	WG1597130

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		1.74	4.33	1	12/31/2020 01:18	WG1598769
C28-C40 Oil Range	1.10	J	0.297	4.33	1	12/31/2020 01:18	WG1598769
(S) o-Terphenyl	*98.2*			*18.0-148*		*12/31/2020 01:18*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.0		1	12/31/2020 00:29	WG1598922

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	861		9.89	21.5	1	12/30/2020 03:37	WG1598695

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		1.02	4.68	41.8	12/30/2020 02:18	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.3*			*77.0-120*		*12/30/2020 02:18*	WG1598607

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		0.000873	0.00187	1.67	12/24/2020 21:37	WG1597130
Toluene	U		0.00243	0.00935	1.67	12/24/2020 21:37	WG1597130
Ethylbenzene	U		0.00138	0.00468	1.67	12/24/2020 21:37	WG1597130
Total Xylenes	U		0.00165	0.0122	1.67	12/24/2020 21:37	WG1597130
(S) Toluene-d8	*96.4*			*75.0-131*		*12/24/2020 21:37*	WG1597130
(S) 4-Bromofluorobenzene	*95.7*			*67.0-138*		*12/24/2020 21:37*	WG1597130
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*12/24/2020 21:37*	WG1597130

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		1.73	4.30	1	12/30/2020 20:43	WG1598769
C28-C40 Oil Range	U		0.295	4.30	1	12/30/2020 20:43	WG1598769
(S) o-Terphenyl	*108*			*18.0-148*		*12/30/2020 20:43*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	12/30/2020 14:08	WG1598923

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	1100		49.3	107	5	12/30/2020 03:46	WG1598695

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		0.803	3.70	32.8	12/30/2020 02:39	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*		*12/30/2020 02:39*	WG1598607

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		0.000690	0.00148	1.31	12/24/2020 21:56	WG1597130
Toluene	U		0.00192	0.00739	1.31	12/24/2020 21:56	WG1597130
Ethylbenzene	U		0.00109	0.00370	1.31	12/24/2020 21:56	WG1597130
Total Xylenes	0.00156	J	0.00130	0.00961	1.31	12/24/2020 21:56	WG1597130
(S) Toluene-d8	*96.6*			*75.0-131*		*12/24/2020 21:56*	WG1597130
(S) 4-Bromofluorobenzene	*96.4*			*67.0-138*		*12/24/2020 21:56*	WG1597130
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*12/24/2020 21:56*	WG1597130

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		1.73	4.29	1	12/30/2020 20:56	WG1598769
C28-C40 Oil Range	U		0.294	4.29	1	12/30/2020 20:56	WG1598769
(S) o-Terphenyl	*114*			*18.0-148*		*12/30/2020 20:56*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.7		1	12/30/2020 14:08	WG1598923

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	1760		49.1	107	5	12/30/2020 03:56	WG1598695

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		1.10	5.06	45.8	12/30/2020 03:00	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*77.0-120*		*12/30/2020 03:00*	WG1598607

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		0.000944	0.00202	1.83	12/24/2020 22:14	WG1597130
Toluene	U		0.00263	0.0101	1.83	12/24/2020 22:14	WG1597130
Ethylbenzene	U		0.00149	0.00506	1.83	12/24/2020 22:14	WG1597130
Total Xylenes	U		0.00178	0.0131	1.83	12/24/2020 22:14	WG1597130
(S) Toluene-d8	*97.2*			*75.0-131*		*12/24/2020 22:14*	WG1597130
(S) 4-Bromofluorobenzene	*99.5*			*67.0-138*		*12/24/2020 22:14*	WG1597130
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*12/24/2020 22:14*	WG1597130

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	4.27	1	12/30/2020 21:09	WG1598769
C28-C40 Oil Range	U		0.293	4.27	1	12/30/2020 21:09	WG1598769
(S) o-Terphenyl	*104*			*18.0-148*		*12/30/2020 21:09*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.4		1	12/30/2020 14:08	WG1598923

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	2580		99.5	216	10	12/30/2020 04:05	WG1598695

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		0.702	3.23	28	12/30/2020 03:20	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.3*			*77.0-120*		*12/30/2020 03:20*	WG1598607

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		0.000604	0.00129	1.12	12/24/2020 22:34	WG1597130
Toluene	U		0.00169	0.00647	1.12	12/24/2020 22:34	WG1597130
Ethylbenzene	U		0.000953	0.00323	1.12	12/24/2020 22:34	WG1597130
Total Xylenes	U		0.00114	0.00841	1.12	12/24/2020 22:34	WG1597130
(S) Toluene-d8	*97.6*			*75.0-131*		*12/24/2020 22:34*	WG1597130
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*12/24/2020 22:34*	WG1597130
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/24/2020 22:34*	WG1597130

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		1.74	4.33	1	12/30/2020 21:22	WG1598769
C28-C40 Oil Range	U		0.296	4.33	1	12/30/2020 21:22	WG1598769
(S) o-Terphenyl	*104*			*18.0-148*		*12/30/2020 21:22*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.4		1	12/30/2020 14:08	WG1598923

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	3590		99.6	216	10	12/30/2020 04:15	WG1598695

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		0.956	4.41	38.8	12/30/2020 03:41	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*77.0-120*		*12/30/2020 03:41*	WG1598607

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		0.000822	0.00176	1.55	12/24/2020 22:53	WG1597130
Toluene	U		0.00228	0.00880	1.55	12/24/2020 22:53	WG1597130
Ethylbenzene	U		0.00129	0.00441	1.55	12/24/2020 22:53	WG1597130
Total Xylenes	U		0.00154	0.0115	1.55	12/24/2020 22:53	WG1597130
(S) Toluene-d8	*97.0*			*75.0-131*		*12/24/2020 22:53*	WG1597130
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*12/24/2020 22:53*	WG1597130
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/24/2020 22:53*	WG1597130

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		1.74	4.33	1	12/30/2020 21:35	WG1598769
C28-C40 Oil Range	U		0.297	4.33	1	12/30/2020 21:35	WG1598769
(S) o-Terphenyl	*96.1*			*18.0-148*		*12/30/2020 21:35*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.9		1	12/30/2020 14:08	WG1598923

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	4010		103	225	10	12/30/2020 04:47	WG1598695

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		1.01	4.64	38.5	12/30/2020 04:02	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*		*12/30/2020 04:02*	WG1598607

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		0.000867	0.00186	1.54	12/24/2020 23:11	WG1597130
Toluene	U		0.00241	0.00928	1.54	12/24/2020 23:11	WG1597130
Ethylbenzene	U		0.00136	0.00464	1.54	12/24/2020 23:11	WG1597130
Total Xylenes	U		0.00164	0.0121	1.54	12/24/2020 23:11	WG1597130
(S) Toluene-d8	*96.1*			*75.0-131*		*12/24/2020 23:11*	WG1597130
(S) 4-Bromofluorobenzene	*95.8*			*67.0-138*		*12/24/2020 23:11*	WG1597130
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*		*12/24/2020 23:11*	WG1597130

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		1.81	4.50	1	12/30/2020 20:17	WG1598769
C28-C40 Oil Range	U		0.308	4.50	1	12/30/2020 20:17	WG1598769
(S) o-Terphenyl	*89.2*			*18.0-148*		*12/30/2020 20:17*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	12/30/2020 14:08	WG1598923

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	3220		105	228	10	12/30/2020 05:25	WG1598695

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		0.949	4.37	35.3	12/30/2020 04:22	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*77.0-120*		*12/30/2020 04:22*	WG1598607

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		0.000815	0.00175	1.41	12/24/2020 23:31	WG1597130
Toluene	0.00227	J	0.00227	0.00874	1.41	12/24/2020 23:31	WG1597130
Ethylbenzene	U		0.00129	0.00437	1.41	12/24/2020 23:31	WG1597130
Total Xylenes	U		0.00154	0.0114	1.41	12/24/2020 23:31	WG1597130
(S) Toluene-d8	*97.4*			*75.0-131*		*12/24/2020 23:31*	WG1597130
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*12/24/2020 23:31*	WG1597130
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*12/24/2020 23:31*	WG1597130

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		1.84	4.56	1	12/30/2020 20:30	WG1598769
C28-C40 Oil Range	0.881	J	0.312	4.56	1	12/30/2020 20:30	WG1598769
(S) o-Terphenyl	*111*			*18.0-148*		*12/30/2020 20:30*	WG1598769

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.6		1	12/30/2020 14:08	WG1598923

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	1900		53.8	117	5	12/30/2020 05:34	WG1598695

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		0.840	3.87	29.5	12/30/2020 04:43	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*77.0-120*		*12/30/2020 04:43*	WG1598607

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		0.000723	0.00155	1.18	12/24/2020 23:50	WG1597130
Toluene	U		0.00201	0.00774	1.18	12/24/2020 23:50	WG1597130
Ethylbenzene	U		0.00114	0.00387	1.18	12/24/2020 23:50	WG1597130
Total Xylenes	U		0.00136	0.0101	1.18	12/24/2020 23:50	WG1597130
(S) Toluene-d8	*97.7*			*75.0-131*		*12/24/2020 23:50*	WG1597130
(S) 4-Bromofluorobenzene	*96.0*			*67.0-138*		*12/24/2020 23:50*	WG1597130
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/24/2020 23:50*	WG1597130

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		1.88	4.67	1	12/31/2020 03:18	WG1598770
C28-C40 Oil Range	U		0.320	4.67	1	12/31/2020 03:18	WG1598770
(S) o-Terphenyl	*53.4*			*18.0-148*		*12/31/2020 03:18*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	12/30/2020 14:08	WG1598923

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	976		54.2	118	5	12/30/2020 05:44	WG1598695

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		1.13	5.21	40.5	12/30/2020 05:04	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.9*			*77.0-120*		*12/30/2020 05:04*	WG1598607

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		0.000974	0.00209	1.62	12/25/2020 00:09	WG1597130
Toluene	U		0.00272	0.0104	1.62	12/25/2020 00:09	WG1597130
Ethylbenzene	U		0.00153	0.00521	1.62	12/25/2020 00:09	WG1597130
Total Xylenes	U		0.00184	0.0135	1.62	12/25/2020 00:09	WG1597130
(S) Toluene-d8	*95.8*			*75.0-131*		*12/25/2020 00:09*	WG1597130
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*12/25/2020 00:09*	WG1597130
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*12/25/2020 00:09*	WG1597130

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		1.90	4.71	1	12/31/2020 03:30	WG1598770
C28-C40 Oil Range	U		0.323	4.71	1	12/31/2020 03:30	WG1598770
(S) o-Terphenyl	*59.0*			*18.0-148*		*12/31/2020 03:30*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.6		1	12/30/2020 14:08	WG1598923

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	248		10.6	23.1	1	12/30/2020 05:53	WG1598695

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		0.962	4.43	35	12/30/2020 05:24	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*77.0-120*		*12/30/2020 05:24*	WG1598607

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		0.000828	0.00177	1.4	12/25/2020 00:28	WG1597130
Toluene	U		0.00230	0.00886	1.4	12/25/2020 00:28	WG1597130
Ethylbenzene	U		0.00130	0.00443	1.4	12/25/2020 00:28	WG1597130
Total Xylenes	U		0.00156	0.0115	1.4	12/25/2020 00:28	WG1597130
(S) Toluene-d8	*97.4*			*75.0-131*		*12/25/2020 00:28*	WG1597130
(S) 4-Bromofluorobenzene	*97.9*			*67.0-138*		*12/25/2020 00:28*	WG1597130
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*12/25/2020 00:28*	WG1597130

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		1.86	4.62	1	12/31/2020 03:43	WG1598770
C28-C40 Oil Range	U		0.317	4.62	1	12/31/2020 03:43	WG1598770
(S) o-Terphenyl	*60.2*			*18.0-148*		*12/31/2020 03:43*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.2		1	12/30/2020 14:08	WG1598923

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	200		10.8	23.5	1	12/30/2020 06:03	WG1598695

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		0.845	3.90	29.5	12/30/2020 05:45	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*77.0-120*		*12/30/2020 05:45*	WG1598607

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		0.000728	0.00156	1.18	12/25/2020 00:47	WG1597130
Toluene	U		0.00202	0.00779	1.18	12/25/2020 00:47	WG1597130
Ethylbenzene	U		0.00115	0.00390	1.18	12/25/2020 00:47	WG1597130
Total Xylenes	U		0.00137	0.0101	1.18	12/25/2020 00:47	WG1597130
(S) Toluene-d8	*98.9*			*75.0-131*		*12/25/2020 00:47*	WG1597130
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*12/25/2020 00:47*	WG1597130
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*12/25/2020 00:47*	WG1597130

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		1.89	4.70	1	12/31/2020 03:05	WG1598770
C28-C40 Oil Range	U		0.322	4.70	1	12/31/2020 03:05	WG1598770
(S) o-Terphenyl	*63.2*			*18.0-148*		*12/31/2020 03:05*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	12/30/2020 13:50	WG1598924

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	3240		95.8	208	10	12/30/2020 06:12	WG1598695

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		0.745	3.44	32	12/30/2020 06:06	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*94.7*			*77.0-120*		*12/30/2020 06:06*	WG1598607

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		0.000642	0.00137	1.28	12/25/2020 01:06	WG1597130
Toluene	U		0.00178	0.00687	1.28	12/25/2020 01:06	WG1597130
Ethylbenzene	U		0.00101	0.00344	1.28	12/25/2020 01:06	WG1597130
Total Xylenes	U		0.00121	0.00893	1.28	12/25/2020 01:06	WG1597130
(S) Toluene-d8	*96.0*			*75.0-131*		*12/25/2020 01:06*	WG1597130
(S) 4-Bromofluorobenzene	*99.1*			*67.0-138*		*12/25/2020 01:06*	WG1597130
(S) 1,2-Dichloroethane-d4	*99.1*			*70.0-130*		*12/25/2020 01:06*	WG1597130

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	4.06	J	1.68	4.17	1	12/31/2020 04:21	WG1598770
C28-C40 Oil Range	17.3		0.285	4.17	1	12/31/2020 04:21	WG1598770
(S) o-Terphenyl	*44.1*			*18.0-148*		*12/31/2020 04:21*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	12/30/2020 13:50	WG1598924

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	843		47.8	104	5	12/30/2020 06:41	WG1598695

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		0.670	3.09	28.7	12/30/2020 06:26	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*77.0-120*		*12/30/2020 06:26*	WG1598607

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		0.000577	0.00124	1.15	12/25/2020 01:25	WG1597130
Toluene	U		0.00160	0.00618	1.15	12/25/2020 01:25	WG1597130
Ethylbenzene	U		0.000912	0.00310	1.15	12/25/2020 01:25	WG1597130
Total Xylenes	U		0.00109	0.00804	1.15	12/25/2020 01:25	WG1597130
(S) Toluene-d8	*97.4*			*75.0-131*		*12/25/2020 01:25*	WG1597130
(S) 4-Bromofluorobenzene	*95.3*			*67.0-138*		*12/25/2020 01:25*	WG1597130
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*12/25/2020 01:25*	WG1597130

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	4.16	1	12/31/2020 01:49	WG1598770
C28-C40 Oil Range	U		0.285	4.16	1	12/31/2020 01:49	WG1598770
(S) o-Terphenyl	*64.8*			*18.0-148*		*12/31/2020 01:49*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.8		1	12/30/2020 13:50	WG1598924

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	622		9.71	21.1	1	12/30/2020 06:50	WG1598695

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		0.762	3.51	32	12/30/2020 06:47	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*77.0-120*		*12/30/2020 06:47*	WG1598607

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	0.000949	J	0.000657	0.00141	1.28	12/25/2020 01:44	WG1597130
Toluene	0.00288	J	0.00182	0.00703	1.28	12/25/2020 01:44	WG1597130
Ethylbenzene	U		0.00104	0.00351	1.28	12/25/2020 01:44	WG1597130
Total Xylenes	0.00228	J	0.00124	0.00914	1.28	12/25/2020 01:44	WG1597130
(S) Toluene-d8	*96.1*			*75.0-131*		*12/25/2020 01:44*	WG1597130
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*12/25/2020 01:44*	WG1597130
(S) 1,2-Dichloroethane-d4	*99.5*			*70.0-130*		*12/25/2020 01:44*	WG1597130

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	12/31/2020 02:02	WG1598770
C28-C40 Oil Range	0.416	J	0.289	4.22	1	12/31/2020 02:02	WG1598770
(S) o-Terphenyl	*66.2*			*18.0-148*		*12/31/2020 02:02*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.2		1	12/30/2020 13:50	WG1598924

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	315		9.87	21.5	1	12/30/2020 07:00	WG1598695

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		0.680	3.13	27.5	12/30/2020 07:08	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*77.0-120*		*12/30/2020 07:08*	WG1598607

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		0.000586	0.00125	1.1	12/24/2020 12:18	WG1597132
Toluene	0.00185	J	0.00163	0.00627	1.1	12/24/2020 12:18	WG1597132
Ethylbenzene	U		0.000924	0.00313	1.1	12/24/2020 12:18	WG1597132
Total Xylenes	0.00125	J	0.00110	0.00815	1.1	12/24/2020 12:18	WG1597132
(S) Toluene-d8	*103*			*75.0-131*		*12/24/2020 12:18*	WG1597132
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*		*12/24/2020 12:18*	WG1597132
(S) 1,2-Dichloroethane-d4	*91.4*			*70.0-130*		*12/24/2020 12:18*	WG1597132

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		1.73	4.29	1	12/31/2020 02:14	WG1598770
C28-C40 Oil Range	U		0.294	4.29	1	12/31/2020 02:14	WG1598770
(S) o-Terphenyl	*68.4*			*18.0-148*		*12/31/2020 02:14*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	12/30/2020 13:50	WG1598924

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	512		9.63	20.9	1	12/30/2020 07:09	WG1598695

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		0.861	3.97	36.8	12/30/2020 07:28	WG1598607
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*		*12/30/2020 07:28*	WG1598607

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		0.000739	0.00158	1.47	12/24/2020 12:37	WG1597132
Toluene	U		0.00206	0.00792	1.47	12/24/2020 12:37	WG1597132
Ethylbenzene	U		0.00116	0.00397	1.47	12/24/2020 12:37	WG1597132
Total Xylenes	U		0.00139	0.0103	1.47	12/24/2020 12:37	WG1597132
(S) Toluene-d8	*102*			*75.0-131*		*12/24/2020 12:37*	WG1597132
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*		*12/24/2020 12:37*	WG1597132
(S) 1,2-Dichloroethane-d4	*93.6*			*70.0-130*		*12/24/2020 12:37*	WG1597132

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	4.19	1	12/31/2020 01:11	WG1598770
C28-C40 Oil Range	U		0.287	4.19	1	12/31/2020 01:11	WG1598770
(S) o-Terphenyl	*65.6*			*18.0-148*		*12/31/2020 01:11*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.0		1	12/30/2020 13:50	WG1598924

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	518		9.69	21.1	1	12/30/2020 07:19	WG1598695

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		0.703	3.24	29.5	12/30/2020 00:05	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 00:05*	WG1598684

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		0.000605	0.00130	1.18	12/24/2020 12:55	WG1597132
Toluene	U		0.00168	0.00648	1.18	12/24/2020 12:55	WG1597132
Ethylbenzene	U		0.000955	0.00324	1.18	12/24/2020 12:55	WG1597132
Total Xylenes	U		0.00114	0.00842	1.18	12/24/2020 12:55	WG1597132
(S) Toluene-d8	*116*			*75.0-131*		*12/24/2020 12:55*	WG1597132
(S) 4-Bromofluorobenzene	*82.5*			*67.0-138*		*12/24/2020 12:55*	WG1597132
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*12/24/2020 12:55*	WG1597132

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	4.21	1	12/31/2020 02:27	WG1598770
C28-C40 Oil Range	0.539	J	0.289	4.21	1	12/31/2020 02:27	WG1598770
(S) o-Terphenyl	*66.5*			*18.0-148*		*12/31/2020 02:27*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	12/30/2020 13:50	WG1598924

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	798		9.87	21.4	1	12/30/2020 07:28	WG1598695

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		0.696	3.20	28.2	12/30/2020 00:27	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 00:27*	WG1598684

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		0.000600	0.00128	1.13	12/24/2020 13:14	WG1597132
Toluene	U		0.00167	0.00642	1.13	12/24/2020 13:14	WG1597132
Ethylbenzene	U		0.000947	0.00322	1.13	12/24/2020 13:14	WG1597132
Total Xylenes	U		0.00113	0.00835	1.13	12/24/2020 13:14	WG1597132
(S) Toluene-d8	*103*			*75.0-131*		*12/24/2020 13:14*	WG1597132
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*12/24/2020 13:14*	WG1597132
(S) 1,2-Dichloroethane-d4	*91.9*			*70.0-130*		*12/24/2020 13:14*	WG1597132

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		1.73	4.29	1	12/31/2020 02:40	WG1598770
C28-C40 Oil Range	0.356	J	0.294	4.29	1	12/31/2020 02:40	WG1598770
(S) o-Terphenyl	*73.7*			*18.0-148*		*12/31/2020 02:40*	WG1598770

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.5		1	12/29/2020 12:52	WG1598205

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	4090		106	231	10	12/30/2020 08:26	WG1598696

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		0.775	3.57	27.5	12/30/2020 00:50	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 00:50*	WG1598684

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		0.000667	0.00143	1.1	12/24/2020 13:33	WG1597132
Toluene	U		0.00186	0.00714	1.1	12/24/2020 13:33	WG1597132
Ethylbenzene	U		0.00105	0.00357	1.1	12/24/2020 13:33	WG1597132
Total Xylenes	U		0.00126	0.00928	1.1	12/24/2020 13:33	WG1597132
(S) Toluene-d8	*99.4*			*75.0-131*		*12/24/2020 13:33*	WG1597132
(S) 4-Bromofluorobenzene	*94.4*			*67.0-138*		*12/24/2020 13:33*	WG1597132
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*		*12/24/2020 13:33*	WG1597132

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		1.86	4.62	1	12/29/2020 21:05	WG1598123
C28-C40 Oil Range	0.690	J	0.317	4.62	1	12/29/2020 21:05	WG1598123
(S) o-Terphenyl	*52.2*			*18.0-148*		*12/29/2020 21:05*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.1		1	12/29/2020 12:52	WG1598205

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	1470		51.0	111	5	12/30/2020 08:45	WG1598696

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		1.11	5.10	43.5	12/30/2020 01:12	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 01:12*	WG1598684

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		0.000953	0.00204	1.74	12/24/2020 14:38	WG1597132
Toluene	0.00332	J	0.00265	0.0102	1.74	12/24/2020 14:38	WG1597132
Ethylbenzene	0.00199	J	0.00150	0.00510	1.74	12/24/2020 14:38	WG1597132
Total Xylenes	0.00326	J	0.00179	0.0132	1.74	12/24/2020 14:38	WG1597132
(S) Toluene-d8	*107*			*75.0-131*		*12/24/2020 14:38*	WG1597132
(S) 4-Bromofluorobenzene	*74.3*			*67.0-138*		*12/24/2020 14:38*	WG1597132
(S) 1,2-Dichloroethane-d4	*88.9*			*70.0-130*		*12/24/2020 14:38*	WG1597132

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		1.79	4.44	1	12/29/2020 21:18	WG1598123
C28-C40 Oil Range	0.775	J	0.304	4.44	1	12/29/2020 21:18	WG1598123
(S) o-Terphenyl	*73.5*			*18.0-148*		*12/29/2020 21:18*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	12/29/2020 12:52	WG1598205

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	267		10.5	22.8	1	12/30/2020 08:54	WG1598696

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		0.728	3.35	26.3	12/30/2020 01:34	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 01:34*	WG1598684

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		0.000625	0.00134	1.05	12/24/2020 14:56	WG1597132
Toluene	U		0.00173	0.00669	1.05	12/24/2020 14:56	WG1597132
Ethylbenzene	U		0.000987	0.00335	1.05	12/24/2020 14:56	WG1597132
Total Xylenes	U		0.00118	0.00871	1.05	12/24/2020 14:56	WG1597132
(S) Toluene-d8	*139*	J1		*75.0-131*		*12/24/2020 14:56*	WG1597132
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*12/24/2020 14:56*	WG1597132
(S) 1,2-Dichloroethane-d4	*87.3*			*70.0-130*		*12/24/2020 14:56*	WG1597132

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		1.84	4.56	1	12/29/2020 21:32	WG1598123
C28-C40 Oil Range	0.388	J	0.313	4.56	1	12/29/2020 21:32	WG1598123
(S) o-Terphenyl	*80.5*			*18.0-148*		*12/29/2020 21:32*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.1		1	12/29/2020 12:52	WG1598205

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	191		10.9	23.8	1	12/30/2020 09:04	WG1598696

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		0.994	4.58	34.5	12/30/2020 01:57	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 01:57*	WG1598684

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		0.000855	0.00183	1.38	12/24/2020 15:15	WG1597132
Toluene	U		0.00238	0.00916	1.38	12/24/2020 15:15	WG1597132
Ethylbenzene	U		0.00135	0.00458	1.38	12/24/2020 15:15	WG1597132
Total Xylenes	U		0.00161	0.0119	1.38	12/24/2020 15:15	WG1597132
(S) Toluene-d8	*113*			*75.0-131*		*12/24/2020 15:15*	WG1597132
(S) 4-Bromofluorobenzene	*72.1*			*67.0-138*		*12/24/2020 15:15*	WG1597132
(S) 1,2-Dichloroethane-d4	*89.2*			*70.0-130*		*12/24/2020 15:15*	WG1597132

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		1.92	4.76	1	12/29/2020 21:45	WG1598123
C28-C40 Oil Range	U		0.326	4.76	1	12/29/2020 21:45	WG1598123
(S) o-Terphenyl	*79.2*			*18.0-148*		*12/29/2020 21:45*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.5		1	12/29/2020 12:52	WG1598205

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	1640		47.2	103	5	12/30/2020 09:13	WG1598696

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		0.621	2.86	27.3	12/30/2020 02:19	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 02:19*	WG1598684

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		0.000534	0.00114	1.09	12/24/2020 15:34	WG1597132
Toluene	U		0.00149	0.00571	1.09	12/24/2020 15:34	WG1597132
Ethylbenzene	U		0.000842	0.00286	1.09	12/24/2020 15:34	WG1597132
Total Xylenes	U		0.00101	0.00742	1.09	12/24/2020 15:34	WG1597132
(S) Toluene-d8	*106*			*75.0-131*		*12/24/2020 15:34*	WG1597132
(S) 4-Bromofluorobenzene	*90.4*			*67.0-138*		*12/24/2020 15:34*	WG1597132
(S) 1,2-Dichloroethane-d4	*88.7*			*70.0-130*		*12/24/2020 15:34*	WG1597132

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		1.65	4.10	1	12/30/2020 00:11	WG1598123
C28-C40 Oil Range	5.58		0.281	4.10	1	12/30/2020 00:11	WG1598123
(S) o-Terphenyl	*76.3*			*18.0-148*		*12/30/2020 00:11*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.2		1	12/29/2020 12:52	WG1598205

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	1160		48.8	106	5	12/30/2020 09:23	WG1598696

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		0.621	2.86	25.5	12/30/2020 02:42	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 02:42*	WG1598684

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		0.000534	0.00115	1.02	12/24/2020 15:53	WG1597132
Toluene	U		0.00149	0.00573	1.02	12/24/2020 15:53	WG1597132
Ethylbenzene	U		0.000844	0.00286	1.02	12/24/2020 15:53	WG1597132
Total Xylenes	U		0.00101	0.00744	1.02	12/24/2020 15:53	WG1597132
(S) Toluene-d8	*105*			*75.0-131*		*12/24/2020 15:53*	WG1597132
(S) 4-Bromofluorobenzene	*91.8*			*67.0-138*		*12/24/2020 15:53*	WG1597132
(S) 1,2-Dichloroethane-d4	*85.6*			*70.0-130*		*12/24/2020 15:53*	WG1597132

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	92.9		8.55	21.2	5	12/30/2020 01:31	WG1598123
C28-C40 Oil Range	224		1.45	21.2	5	12/30/2020 01:31	WG1598123
(S) o-Terphenyl	*74.2*			*18.0-148*		*12/30/2020 01:31*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.2		1	12/29/2020 12:52	WG1598205

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	2810		101	219	10	12/30/2020 09:32	WG1598696

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		1.02	4.71	40.8	12/30/2020 04:44	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 04:44*	WG1598684

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		0.000879	0.00188	1.63	12/24/2020 16:12	WG1597132
Toluene	U		0.00245	0.00941	1.63	12/24/2020 16:12	WG1597132
Ethylbenzene	U		0.00139	0.00471	1.63	12/24/2020 16:12	WG1597132
Total Xylenes	U		0.00165	0.0122	1.63	12/24/2020 16:12	WG1597132
(S) Toluene-d8	*107*			*75.0-131*		*12/24/2020 16:12*	WG1597132
(S) 4-Bromofluorobenzene	*93.2*			*67.0-138*		*12/24/2020 16:12*	WG1597132
(S) 1,2-Dichloroethane-d4	*85.0*			*70.0-130*		*12/24/2020 16:12*	WG1597132

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		1.76	4.38	1	12/29/2020 21:58	WG1598123
C28-C40 Oil Range	3.49	J	0.300	4.38	1	12/29/2020 21:58	WG1598123
(S) o-Terphenyl	*70.9*			*18.0-148*		*12/29/2020 21:58*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	12/29/2020 12:52	WG1598205

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	3750		101	219	10	12/30/2020 10:01	WG1598696

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		0.781	3.60	30.8	12/30/2020 05:07	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*77.0-120*		*12/30/2020 05:07*	WG1598684

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		0.000671	0.00144	1.23	12/24/2020 16:31	WG1597132
Toluene	U		0.00187	0.00719	1.23	12/24/2020 16:31	WG1597132
Ethylbenzene	U		0.00106	0.00360	1.23	12/24/2020 16:31	WG1597132
Total Xylenes	U		0.00126	0.00936	1.23	12/24/2020 16:31	WG1597132
(S) Toluene-d8	*88.8*			*75.0-131*		*12/24/2020 16:31*	WG1597132
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*		*12/24/2020 16:31*	WG1597132
(S) 1,2-Dichloroethane-d4	*84.7*			*70.0-130*		*12/24/2020 16:31*	WG1597132

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		1.76	4.37	1	12/29/2020 22:12	WG1598123
C28-C40 Oil Range	1.29	J	0.300	4.37	1	12/29/2020 22:12	WG1598123
(S) o-Terphenyl	*74.8*			*18.0-148*		*12/29/2020 22:12*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.9		1	12/29/2020 14:26	WG1598206

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	477		9.40	20.4	1	12/30/2020 10:10	WG1598696

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		0.606	2.79	26.8	12/30/2020 05:29	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*		*12/30/2020 05:29*	WG1598684

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		0.000521	0.00111	1.07	12/24/2020 16:49	WG1597132
Toluene	0.00947		0.00145	0.00557	1.07	12/24/2020 16:49	WG1597132
Ethylbenzene	0.00346		0.000821	0.00279	1.07	12/24/2020 16:49	WG1597132
Total Xylenes	0.0152		0.000981	0.00725	1.07	12/24/2020 16:49	WG1597132
(S) Toluene-d8	*100*			*75.0-131*		*12/24/2020 16:49*	WG1597132
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*12/24/2020 16:49*	WG1597132
(S) 1,2-Dichloroethane-d4	*86.3*			*70.0-130*		*12/24/2020 16:49*	WG1597132

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	155		16.4	40.8	10	12/30/2020 01:44	WG1598123
C28-C40 Oil Range	530		2.80	40.8	10	12/30/2020 01:44	WG1598123
(S) o-Terphenyl	*90.0*			*18.0-148*		*12/30/2020 01:44*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	12/29/2020 14:26	WG1598206

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	148		9.66	21.0	1	12/30/2020 10:20	WG1598696

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		0.707	3.26	29.8	12/30/2020 05:51	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 05:51*	WG1598684

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		0.000608	0.00130	1.19	12/24/2020 17:08	WG1597132
Toluene	0.00494	J	0.00169	0.00650	1.19	12/24/2020 17:08	WG1597132
Ethylbenzene	U		0.000958	0.00325	1.19	12/24/2020 17:08	WG1597132
Total Xylenes	0.00290	J	0.00115	0.00846	1.19	12/24/2020 17:08	WG1597132
(S) Toluene-d8	*121*			*75.0-131*		*12/24/2020 17:08*	WG1597132
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*12/24/2020 17:08*	WG1597132
(S) 1,2-Dichloroethane-d4	*83.0*			*70.0-130*		*12/24/2020 17:08*	WG1597132

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	22.4		8.45	21.0	5	12/30/2020 01:17	WG1598123
C28-C40 Oil Range	66.9		1.44	21.0	5	12/30/2020 01:17	WG1598123
(S) o-Terphenyl	*77.9*			*18.0-148*		*12/30/2020 01:17*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.9		1	12/29/2020 14:26	WG1598206

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	343		9.49	20.6	1	12/30/2020 10:48	WG1598696

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		0.852	3.93	37.3	12/30/2020 06:13	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 06:13*	WG1598684

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		0.000733	0.00157	1.49	12/24/2020 17:27	WG1597132
Toluene	U		0.00204	0.00785	1.49	12/24/2020 17:27	WG1597132
Ethylbenzene	U		0.00116	0.00393	1.49	12/24/2020 17:27	WG1597132
Total Xylenes	U		0.00138	0.0102	1.49	12/24/2020 17:27	WG1597132
(S) Toluene-d8	*103*			*75.0-131*		*12/24/2020 17:27*	WG1597132
(S) 4-Bromofluorobenzene	*93.5*			*67.0-138*		*12/24/2020 17:27*	WG1597132
(S) 1,2-Dichloroethane-d4	*84.3*			*70.0-130*		*12/24/2020 17:27*	WG1597132

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	9.25		1.66	4.13	1	12/30/2020 01:04	WG1598123
C28-C40 Oil Range	31.6		0.283	4.13	1	12/30/2020 01:04	WG1598123
(S) o-Terphenyl	*75.7*			*18.0-148*		*12/30/2020 01:04*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	12/29/2020 14:26	WG1598206

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	537		9.66	21.0	1	12/30/2020 10:58	WG1598696

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		0.597	2.75	25	12/30/2020 06:36	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 06:36*	WG1598684

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000514	0.00110	1	12/24/2020 17:45	WG1597132
Toluene	U		0.00143	0.00550	1	12/24/2020 17:45	WG1597132
Ethylbenzene	U		0.000810	0.00275	1	12/24/2020 17:45	WG1597132
Total Xylenes	U		0.000968	0.00715	1	12/24/2020 17:45	WG1597132
(S) Toluene-d8	*107*			*75.0-131*		*12/24/2020 17:45*	WG1597132
(S) 4-Bromofluorobenzene	*96.0*			*67.0-138*		*12/24/2020 17:45*	WG1597132
(S) 1,2-Dichloroethane-d4	*84.2*			*70.0-130*		*12/24/2020 17:45*	WG1597132

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	7.40		1.69	4.20	1	12/30/2020 00:51	WG1598123
C28-C40 Oil Range	28.2		0.288	4.20	1	12/30/2020 00:51	WG1598123
(S) o-Terphenyl	*84.3*			*18.0-148*		*12/30/2020 00:51*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	12/29/2020 14:26	WG1598206

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	364		9.74	21.2	1	12/30/2020 11:07	WG1598696

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		4.17	19.2	180	12/30/2020 06:58	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 06:58*	WG1598684

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	0.0236		0.00358	0.00767	7.19	12/26/2020 11:31	WG1597581
Toluene	0.151		0.00997	0.0384	7.19	12/26/2020 11:31	WG1597581
Ethylbenzene	0.0236		0.00565	0.0192	7.19	12/26/2020 11:31	WG1597581
Total Xylenes	0.158		0.00675	0.0498	7.19	12/26/2020 11:31	WG1597581
(S) Toluene-d8	*103*			*75.0-131*		*12/26/2020 11:31*	WG1597581
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*12/26/2020 11:31*	WG1597581
(S) 1,2-Dichloroethane-d4	*90.9*			*70.0-130*		*12/26/2020 11:31*	WG1597581

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	2.25	J	1.70	4.23	1	12/30/2020 00:24	WG1598123
C28-C40 Oil Range	9.78		0.290	4.23	1	12/30/2020 00:24	WG1598123
(S) o-Terphenyl	*84.9*			*18.0-148*		*12/30/2020 00:24*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.3		1	12/29/2020 14:26	WG1598206

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	33.2		9.46	20.6	1	12/30/2020 11:17	WG1598696

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		0.574	2.64	25	12/30/2020 07:21	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 07:21*	WG1598684

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		0.000494	0.00106	1	12/26/2020 11:50	WG1597581
Toluene	U		0.00137	0.00528	1	12/26/2020 11:50	WG1597581
Ethylbenzene	U		0.000779	0.00264	1	12/26/2020 11:50	WG1597581
Total Xylenes	U		0.000930	0.00687	1	12/26/2020 11:50	WG1597581
(S) Toluene-d8	*102*			*75.0-131*		*12/26/2020 11:50*	WG1597581
(S) 4-Bromofluorobenzene	*96.1*			*67.0-138*		*12/26/2020 11:50*	WG1597581
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/26/2020 11:50*	WG1597581

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	4.11	1	12/29/2020 22:25	WG1598123
C28-C40 Oil Range	1.88	J	0.282	4.11	1	12/29/2020 22:25	WG1598123
(S) o-Terphenyl	*73.0*			*18.0-148*		*12/29/2020 22:25*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	12/29/2020 14:26	WG1598206

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	29.8		10.1	21.9	1	12/30/2020 11:26	WG1598696

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		0.738	3.40	29	12/30/2020 07:43	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*12/30/2020 07:43*	WG1598684

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		0.000636	0.00136	1.16	12/26/2020 12:09	WG1597581
Toluene	U		0.00177	0.00680	1.16	12/26/2020 12:09	WG1597581
Ethylbenzene	U		0.00100	0.00340	1.16	12/26/2020 12:09	WG1597581
Total Xylenes	U		0.00120	0.00884	1.16	12/26/2020 12:09	WG1597581
(S) Toluene-d8	*103*			*75.0-131*		*12/26/2020 12:09*	WG1597581
(S) 4-Bromofluorobenzene	*95.0*			*67.0-138*		*12/26/2020 12:09*	WG1597581
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/26/2020 12:09*	WG1597581

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		1.76	4.37	1	12/29/2020 22:38	WG1598123
C28-C40 Oil Range	2.22	J	0.299	4.37	1	12/29/2020 22:38	WG1598123
(S) o-Terphenyl	*73.2*			*18.0-148*		*12/29/2020 22:38*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	12/29/2020 14:26	WG1598206

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	10.6	J	10.3	22.5	1	12/30/2020 11:58	WG1598696

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		0.681	3.14	25	12/30/2020 08:05	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 08:05*	WG1598684

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		0.000586	0.00125	1	12/26/2020 12:28	WG1597581
Toluene	U		0.00163	0.00627	1	12/26/2020 12:28	WG1597581
Ethylbenzene	U		0.000924	0.00314	1	12/26/2020 12:28	WG1597581
Total Xylenes	U		0.00110	0.00815	1	12/26/2020 12:28	WG1597581
(S) Toluene-d8	*103*			*75.0-131*		*12/26/2020 12:28*	WG1597581
(S) 4-Bromofluorobenzene	*93.4*			*67.0-138*		*12/26/2020 12:28*	WG1597581
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*12/26/2020 12:28*	WG1597581

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		1.81	4.49	1	12/29/2020 23:18	WG1598123
C28-C40 Oil Range	1.36	J	0.308	4.49	1	12/29/2020 23:18	WG1598123
(S) o-Terphenyl	*78.9*			*18.0-148*		*12/29/2020 23:18*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.1		1	12/29/2020 14:26	WG1598206

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	291		9.38	20.4	1	12/30/2020 12:07	WG1598696

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		1.00	4.62	44.8	12/30/2020 08:27	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*12/30/2020 08:27*	WG1598684

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	0.000876	J	0.000862	0.00185	1.79	12/26/2020 12:47	WG1597581
Toluene	U		0.00240	0.00923	1.79	12/26/2020 12:47	WG1597581
Ethylbenzene	U		0.00136	0.00462	1.79	12/26/2020 12:47	WG1597581
Total Xylenes	0.00365	J	0.00163	0.0120	1.79	12/26/2020 12:47	WG1597581
(S) Toluene-d8	*102*			*75.0-131*		*12/26/2020 12:47*	WG1597581
(S) 4-Bromofluorobenzene	*92.9*			*67.0-138*		*12/26/2020 12:47*	WG1597581
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*12/26/2020 12:47*	WG1597581

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	3.36	J	1.64	4.08	1	12/30/2020 00:38	WG1598123
C28-C40 Oil Range	25.1		0.279	4.08	1	12/30/2020 00:38	WG1598123
(S) o-Terphenyl	*80.9*			*18.0-148*		*12/30/2020 00:38*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.5		1	12/29/2020 14:26	WG1598206

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	23.2		9.34	20.3	1	12/30/2020 12:16	WG1598696

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		0.560	2.58	25	12/30/2020 08:50	WG1598684
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*12/30/2020 08:50*	WG1598684

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000482	0.00103	1	12/26/2020 13:06	WG1597581
Toluene	U		0.00134	0.00516	1	12/26/2020 13:06	WG1597581
Ethylbenzene	U		0.000760	0.00258	1	12/26/2020 13:06	WG1597581
Total Xylenes	U		0.000908	0.00671	1	12/26/2020 13:06	WG1597581
(S) Toluene-d8	*105*			*75.0-131*		*12/26/2020 13:06*	WG1597581
(S) 4-Bromofluorobenzene	*95.2*			*67.0-138*		*12/26/2020 13:06*	WG1597581
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*12/26/2020 13:06*	WG1597581

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		1.63	4.06	1	12/29/2020 23:31	WG1598123
C28-C40 Oil Range	8.49		0.278	4.06	1	12/29/2020 23:31	WG1598123
(S) o-Terphenyl	*84.1*			*18.0-148*		*12/29/2020 23:31*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	12/29/2020 14:14	WG1598207

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	32.7		9.58	20.8	1	12/30/2020 12:26	WG1598696

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		0.796	3.67	34.3	12/30/2020 07:08	WG1598691
(S) a,a,a-Trifluorotoluene(FID)	*97.7*			*77.0-120*		*12/30/2020 07:08*	WG1598691

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		0.000685	0.00147	1.37	12/26/2020 13:25	WG1597581
Toluene	U		0.00191	0.00733	1.37	12/26/2020 13:25	WG1597581
Ethylbenzene	U		0.00108	0.00367	1.37	12/26/2020 13:25	WG1597581
Total Xylenes	U		0.00130	0.00953	1.37	12/26/2020 13:25	WG1597581
(S) Toluene-d8	*106*			*75.0-131*		*12/26/2020 13:25*	WG1597581
(S) 4-Bromofluorobenzene	*97.8*			*67.0-138*		*12/26/2020 13:25*	WG1597581
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*12/26/2020 13:25*	WG1597581

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	12/29/2020 23:44	WG1598123
C28-C40 Oil Range	4.41		0.285	4.16	1	12/29/2020 23:44	WG1598123
(S) o-Terphenyl	*74.8*			*18.0-148*		*12/29/2020 23:44*	WG1598123

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.3		1	12/29/2020 14:14	WG1598207

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	42.4		9.55	20.8	1	12/30/2020 12:35	WG1598696

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	1.12	B J	0.922	4.25	40	12/30/2020 07:31	WG1598691
(S) a,a,a-Trifluorotoluene(FID)	*98.1*			*77.0-120*		*12/30/2020 07:31*	WG1598691

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		0.000793	0.00170	1.6	12/26/2020 13:44	WG1597581
Toluene	U		0.00221	0.00850	1.6	12/26/2020 13:44	WG1597581
Ethylbenzene	U		0.00125	0.00425	1.6	12/26/2020 13:44	WG1597581
Total Xylenes	U		0.00150	0.0110	1.6	12/26/2020 13:44	WG1597581
(S) Toluene-d8	*103*			*75.0-131*		*12/26/2020 13:44*	WG1597581
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*		*12/26/2020 13:44*	WG1597581
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*12/26/2020 13:44*	WG1597581

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	12/29/2020 23:58	WG1598123
C28-C40 Oil Range	2.29	J	0.284	4.15	1	12/29/2020 23:58	WG1598123
(S) o-Terphenyl	*80.8*			*18.0-148*		*12/29/2020 23:58*	WG1598123

Method Blank (MB)

(MB) R3608325-1 12/29/20 12:52

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

L1299139-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-24 12/29/20 12:52 • (DUP) R3608325-3 12/29/20 12:52

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.1	84.5	1	0.483		10

Laboratory Control Sample (LCS)

(LCS) R3608325-2 12/29/20 12:52

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.1	100	85.0-115	

Method Blank (MB)

(MB) R3608283-1 12/29/20 14:26

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

L1299139-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-36 12/29/20 14:26 • (DUP) R3608283-3 12/29/20 14:26

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.0	89.8	1	0.853		10

Laboratory Control Sample (LCS)

(LCS) R3608283-2 12/29/20 14:26

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) R3608282-1 12/29/20 14:14

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

Laboratory Control Sample (LCS)

(LCS) R3608282-2 12/29/20 14:14

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) R3608629-1 12/31/20 00:29

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

L1299139-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-02 12/31/20 00:29 • (DUP) R3608629-3 12/31/20 00:29

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.4	93.1	1	0.769		10

Laboratory Control Sample (LCS)

(LCS) R3608629-2 12/31/20 00:29

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) R3608597-1 12/30/20 14:08

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

L1299139-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-13 12/30/20 14:08 • (DUP) R3608597-3 12/30/20 14:08

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	85.2	84.8	1	0.461		10

Laboratory Control Sample (LCS)

(LCS) R3608597-2 12/30/20 14:08

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) R3608595-1 12/30/20 13:50

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

L1299181-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1299181-01 12/30/20 13:50 • (DUP) R3608595-3 12/30/20 13:50

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	80.3	81.0	1	0.875		10

Laboratory Control Sample (LCS)

(LCS) R3608595-2 12/30/20 13:50

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) R3608353-1 12/30/20 02:40

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

L1299139-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-01 12/30/20 03:08 • (DUP) R3608353-3 12/30/20 03:18

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3030	3020	10	0.579		20

L1299139-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-20 12/30/20 07:28 • (DUP) R3608353-6 12/30/20 07:38

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	798	774	1	3.09		20

Laboratory Control Sample (LCS)

(LCS) R3608353-2 12/30/20 02:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	207	104	90.0-110	

L1299139-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-09 12/30/20 04:56 • (MS) R3608353-4 12/30/20 05:06 • (MSD) R3608353-5 12/30/20 05:15

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 %
Chloride	570	3150	3790	3770	113	109	1	80.0-120	E	E	0.574	20

Method Blank (MB)

(MB) R3608354-1 12/30/20 08:07

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

L1299139-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-21 12/30/20 08:26 • (DUP) R3608354-3 12/30/20 08:35

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	4090	4080	10	0.433		20

L1299139-40 Original Sample (OS) • Duplicate (DUP)

(OS) L1299139-40 12/30/20 12:35 • (DUP) R3608354-6 12/30/20 12:45

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	42.4	42.7	1	0.836		20

Laboratory Control Sample (LCS)

(LCS) R3608354-2 12/30/20 08:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	207	104	90.0-110	

L1299139-30 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-30 12/30/20 10:20 • (MS) R3608354-4 12/30/20 10:29 • (MSD) R3608354-5 12/30/20 10:39

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	525	148	689	691	103	103	1	80.0-120			0.279	20

Method Blank (MB)

(MB) R3609166-2 12/29/20 23:53

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)	*96.8*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3609166-1 12/29/20 23:12

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)			*101*	*77.0-120*	

L1299139-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-01 12/30/20 01:37 • (MS) R3609166-3 12/30/20 07:49 • (MSD) R3609166-4 12/30/20 08:10

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	203	U	208	203	103	100	33.8	10.0-151			2.65	28
(S) a,a,a-Trifluorotoluene(FID)					*111*	*111*		*77.0-120*				

Method Blank (MB)

(MB) R3608462-3 12/29/20 19:56

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)	*101*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3608462-2 12/29/20 19:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.79	87.1	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*104*	*77.0-120*	

L1299139-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-29 12/30/20 05:29 • (MS) R3608462-4 12/30/20 09:12 • (MSD) R3608462-5 12/30/20 09:34

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 %
TPH (GC/FID) Low Fraction	153	U	73.8	71.6	48.2	46.8	26.8	10.0-151			3.01	28
(S) a,a,a-Trifluorotoluene(FID)					*103*	*103*		*77.0-120*				

Method Blank (MB)

(MB) R3608716-2 12/30/20 00:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0915	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.0*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3608716-1 12/29/20 22:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.12	111	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*77.0-120*	

L1299158-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299158-21 12/30/20 15:14 • (MS) R3608716-3 12/30/20 17:11 • (MSD) R3608716-4 12/30/20 17:34

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 %
TPH (GC/FID) Low Fraction	175	1.12	155	149	87.7	84.3	25	10.0-151			3.99	28
(S) a,a,a-Trifluorotoluene(FID)					*106*	*106*		*77.0-120*				

Method Blank (MB)

(MB) R3608500-2 12/24/20 19:23

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	*98.3*			*75.0-131*
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3608500-1 12/24/20 18:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.129	103	70.0-123	
Ethylbenzene	0.125	0.115	92.0	74.0-126	
Toluene	0.125	0.112	89.6	75.0-121	
Xylenes, Total	0.375	0.336	89.6	72.0-127	
(S) Toluene-d8			*93.1*	*75.0-131*	
(S) 4-Bromofluorobenzene			*106*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*106*	*70.0-130*	

L1299139-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-15 12/25/20 01:25 • (MS) R3608500-3 12/25/20 02:03 • (MSD) R3608500-4 12/25/20 02:22

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	0.155	U	0.0892	0.0837	57.6	54.1	1.15	10.0-149			6.34	37
Ethylbenzene	0.155	U	0.0742	0.0696	47.9	44.9	1.15	10.0-160			6.43	38
Toluene	0.155	U	0.0763	0.0730	49.3	47.2	1.15	10.0-156			4.46	38
Xylenes, Total	0.463	U	0.223	0.217	48.0	46.9	1.15	10.0-160			2.44	38
(S) Toluene-d8					*94.2*	*94.4*		*75.0-131*				
(S) 4-Bromofluorobenzene					*99.7*	*99.2*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*103*	*101*		*70.0-130*				

Method Blank (MB)

(MB) R3608414-2 12/24/20 11:59

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	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*95.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*91.9*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3608414-1 12/24/20 11:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.134	107	70.0-123	
Ethylbenzene	0.125	0.138	110	74.0-126	
Toluene	0.125	0.132	106	75.0-121	
Xylenes, Total	0.375	0.399	106	72.0-127	
(S) Toluene-d8			*99.9*	*75.0-131*	
(S) 4-Bromofluorobenzene			*92.9*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*100*	*70.0-130*	

Method Blank (MB)

(MB) R3608349-2 12/26/20 09:24

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	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*80.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3608349-1 12/26/20 08:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.133	106	70.0-123	
Ethylbenzene	0.125	0.132	106	74.0-126	
Toluene	0.125	0.130	104	75.0-121	
Xylenes, Total	0.375	0.406	108	72.0-127	
(S) Toluene-d8			*99.3*	*75.0-131*	
(S) 4-Bromofluorobenzene			*102*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*107*	*70.0-130*	

L1299198-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299198-05 12/26/20 16:52 • (MS) R3608349-3 12/26/20 17:11 • (MSD) R3608349-4 12/26/20 17:30

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	0.196	U	0.161	0.152	82.1	77.3	1	10.0-149			6.02	37
Ethylbenzene	0.196	U	0.157	0.156	79.9	79.3	1	10.0-160			0.715	38
Toluene	0.196	0.00293	0.167	0.161	83.9	80.6	1	10.0-156			3.88	38
Xylenes, Total	0.587	0.00144	0.489	0.469	83.2	79.6	1	10.0-160			4.33	38
(S) Toluene-d8					*104*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*94.1*	*96.9*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*102*	*97.8*		*70.0-130*				

Method Blank (MB)

(MB) R3608171-1 12/29/20 20:39

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	*79.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3608171-2 12/29/20 20:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	41.1	82.2	50.0-150	
(S) o-Terphenyl			*102*	*18.0-148*	

L1299139-35 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-35 12/29/20 22:38 • (MS) R3608171-3 12/29/20 22:51 • (MSD) R3608171-4 12/29/20 23:05

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	54.6	U	43.4	43.5	79.4	79.6	1	50.0-150			0.252	20
(S) o-Terphenyl					*90.5*	*93.2*		*18.0-148*				

Method Blank (MB)

(MB) R3608527-1 12/30/20 18:37

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	*106*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3608527-2 12/30/20 19:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	46.0	92.0	50.0-150	
(S) o-Terphenyl			*105*	*18.0-148*	

L1299139-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-01 12/30/20 22:15 • (MS) R3608527-3 12/30/20 22:28 • (MSD) R3608527-4 12/30/20 22:41

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 %
C10-C28 Diesel Range	52.6	9.24	55.6	55.3	88.2	87.6	1	50.0-150			0.569	20
(S) o-Terphenyl					*88.0*	*88.7*		*18.0-148*				

Method Blank (MB)

(MB) R3608552-1 12/31/20 00:45

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	*61.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3608552-4 12/31/20 06:04

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			*78.1*	*18.0-148*	

L1299139-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1299139-18 12/31/20 01:11 • (MS) R3608552-2 12/31/20 01:23 • (MSD) R3608552-3 12/31/20 01:36

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	52.3	U	34.8	38.2	66.6	73.0	1	50.0-150			9.17	20
(S) o-Terphenyl					*79.9*	*68.8*		*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.
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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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	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	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-20-18
Maine	TN00003	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	998093910
Montana	CERT0086	Wyoming	A2LA

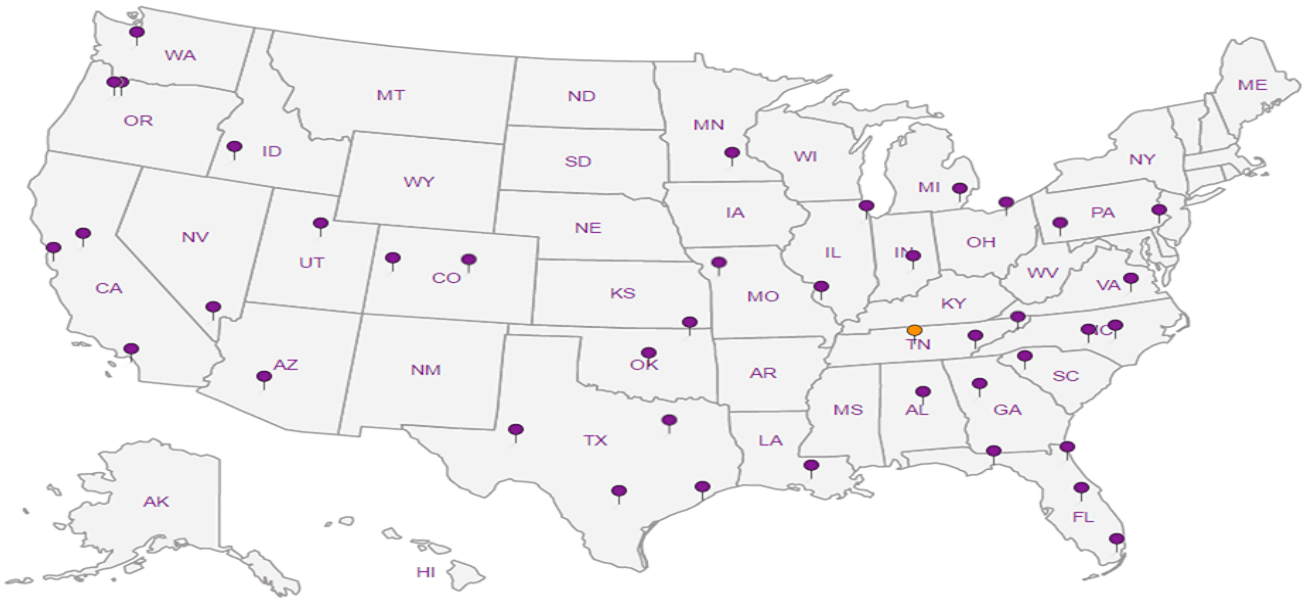
Third Party Federal Accreditations

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

D059

Tetra Tech, Inc.

Sample Receipt Checklist
COC Seal Present/Intact: __Y__N
COC Signed/Accurate: __Y__N
Bottles arrive intact: __Y__N
Correct bottles used: __Y__N
Sufficient volume sent: __Y__N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: __Y__N
Pres.Correct/Check: __Y__N

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	James A #12 Injection Line Release, AoC 7143	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02366
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 # 1299139 (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2020)	TIME	MATRIX: WATER	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
01	BH-1 (0'-1')	12/16/20	1000		X			X		1	N	X		X												X						
02	BH-1 (2'-3')	12/16/20	1010		X			X		1	N	X		X												X						
03	BH-1 (4'-5')	12/16/20	1020		X			X		1	N	X		X												X						
04	BH-1 (6'-7')	12/16/20	1030		X			X		1	N	X		X												X						
05	BH-1 (9'-10')	12/16/20	1040		X			X		1	N	X		X												X						
06	BH-1 (14'-15')	12/16/20	1050		X			X		1	N	X		X												X						
07	BH-1 (19'-20')	12/16/20	1100		X			X		1	N	X		X												X						
08	BH-1 (24'-25')	12/16/20	1120		X			X		1	N	X		X												X						
9	BH-1 (29'-30')	12/16/20	1140		X			X		1	N	X		X												X						
10	BH-1 (34'-35')	12/16/20	1200		X			X		1	N	X		X												X						

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Joe Tyler [signature]	12.18.20	13:00	[signature]	12.18.20	13:00
[signature]	12.18.20	16:30	SWA	12.18.20	16:30
			[signature]	12/19	1045

LAB USE ONLY

Sample Temperature

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

, 5to=5

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:	James A #12 Injection Line Release, AoC 7143	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02366
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 (YEAR: 2020)	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
1299139																																	
11	BH-1 (39'-40')	12/16/20	1220		X				X			1	N	X		X											X						
12	BH-1 (44'-45')	12/16/20	1240		X				X			1	N	X		X											X						
13	BH-1 (49'-50')	12/16/20	1300		X				X			1	N	X		X											X						
14	BH-2 (0'-1')	12/16/20	1310		X				X			1	N	X		X											X						
15	BH-2 (2'-3')	12/16/20	1320		X				X			1	N	X		X											X						
16	BH-2 (4'-5')	12/16/20	1330		X				X			1	N	X		X											X						
17	BH-2 (6'-7')	12/16/20	1340		X				X			1	N	X		X											X						
18	BH-2 (9'-10')	12/16/20	1350		X				X			1	N	X		X											X						
19	BH-2 (14'-15')	12/16/20	1400		X				X			1	N	X		X											X						
20	BH-2 (19'-20')	12/16/20	1410		X				X			1	N	X		X											X						

	Date:	Time:		Date:	Time:
Relinquished by:	12.18.20	13:00	Received by:	12.18.20	13:00
Relinquished by:	12.18.20	1630	Received by:	12.18.20	1630
Relinquished by:			Received by:	12/15	10

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LAB USE ONLY
Sample Temperature

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

.5+0=.5 mm A2

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	James A #12 Injection Line Release, AoC 7143	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02366
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 # 1299139 (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2020)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	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
21	BH-2 (24'-25')	12/16/20	1420		X				X			1	N	X		X												X						
22	BH-2 (29'-30')	12/16/20	1440		X				X			1	N	X		X												X						
23	BH-2 (34'-35')	12/16/20	1500		X				X			1	N	X		X												X						
24	BH-2 (39'-40')	12/16/20	1520		X				X			1	N	X		X												X						
25	BH-3 (0'-1')	12/16/20	1600		X				X			1	N	X		X												X						
26	BH-3 (2'-3')	12/16/20	1610		X				X			1	N	X		X												X						
27	BH-3 (4'-5')	12/16/20	1620		X				X			1	N	X		X												X						
28	BH-3 (6'-7')	12/16/20	1630		X				X			1	N	X		X												X						
29	BH-4 (0'-1')	12/16/20	1640		X				X			1	N	X		X												X						
30	BH-4 (2'-3')	12/16/20	1650		X				X			1	N	X		X												X						

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	12.18.20	13:00	[signature]	12.18.20	13:00
[signature]	12.18.20	16:30	SWA	12.18.20	1630
			[signature]	12/18	1042

LAB USE ONLY

Sample Temperature

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: ____________

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-5±0=5 WY RZ

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	James A #12 Injection Line Release, AoC 7143	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02366
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: 2020 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
1299179																																	
31	BH-4 (4'-5')	12/16/20	1700		X				X			1	N	X		X											X						
32	BH-4 (6'-7')	12/16/20	1710		X				X			1	N	X		X											X						
33	BH-5 (0'-1')	12/16/20	1720		X				X			1	N	X		X											X						
34	BH-5 (2'-3')	12/16/20	1730		X				X			1	N	X		X											X						
35	BH-5 (4'-5')	12/16/20	1740		X				X			1	N	X		X											X						
36	BH-5 (6'-7')	12/16/20	1750		X				X			1	N	X		X											X						
37	BH-6 (0'-1')	12/16/20	1800		X				X			1	N	X		X											X						
38	BH-6 (2'-3')	12/16/20	1810		X				X			1	N	X		X											X						
39	BH-6 (4'-5')	12/16/20	1820		X				X			1	N	X		X											X						
40	BH-6 (6'-7')	12/16/20	1830		X				X			1	N	X		X											X						

Relinquished by: Joe Tyler	Date: 12.18.20	Time: 13:00	Received by:	Date: 12.18.20	Time: 13:00
Relinquished by:	Date: 12.18.20	Time: 1630	Received by: SCOA	Date: 12.18.20	Time: 1630
Relinquished by:	Date:	Time:	Received by:	Date: 12/18	Time: 1018

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

.5+0=.5

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

March 10, 2021

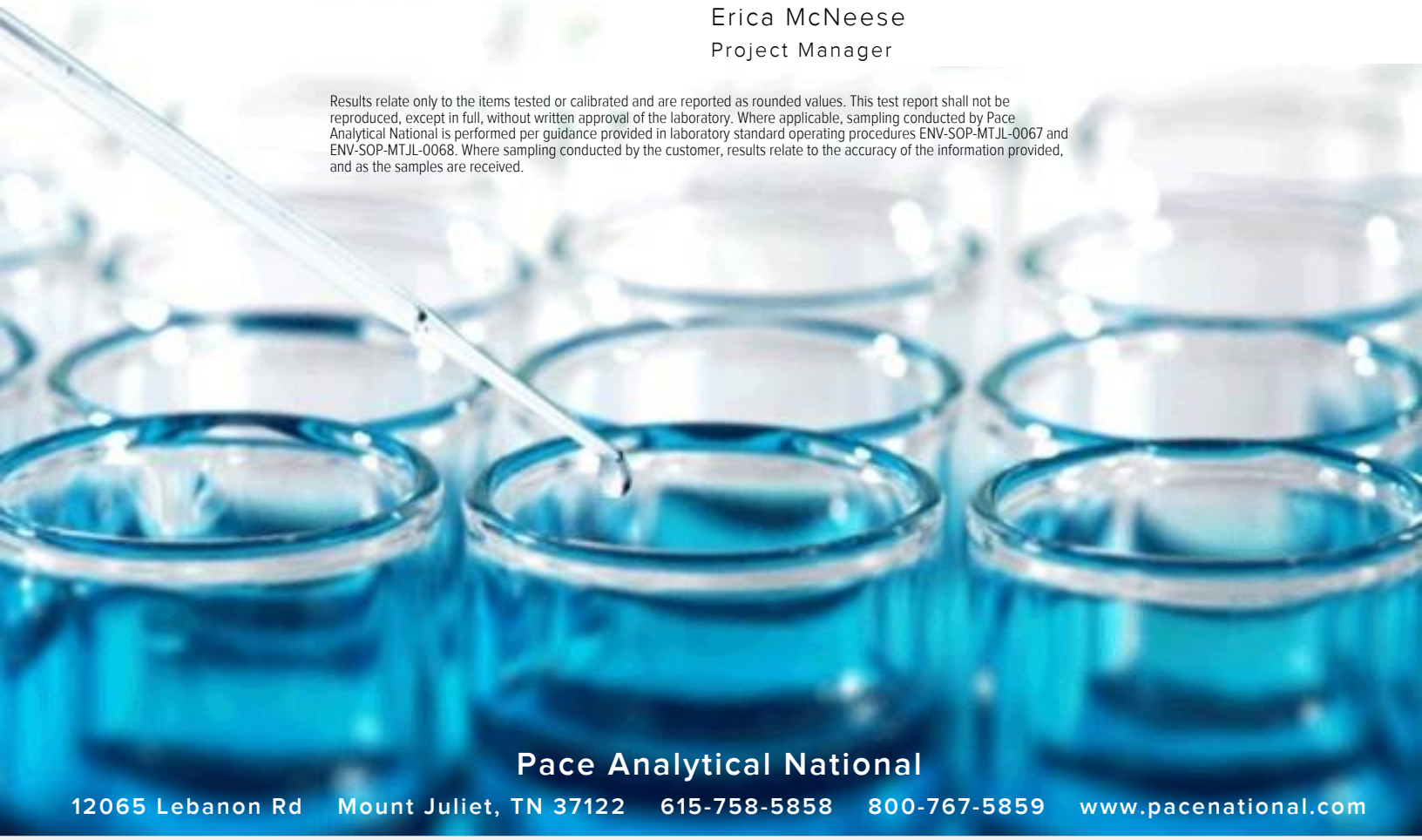
ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1322293
Samples Received:	03/03/2021
Project Number:	212C-MD-02366
Description:	James A #12 Flowline

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

Entire Report Reviewed By: Erica McNeese

Erica McNeese
Project Manager



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

TABLE OF CONTENTS

BH 7 (0'-1') L1322293-01 Solid

Collected by: Adrian Garcia | Collected date/time: 03/01/21 08:00 | Received date/time: 03/03/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1630042	1	03/06/21 15:53	03/06/21 16:02	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1629492	1	03/04/21 13:56	03/04/21 16:46	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1630945	1	03/03/21 19:58	03/08/21 07:47	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1629391	1	03/03/21 19:58	03/04/21 14:28	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1630389	1	03/06/21 07:33	03/06/21 21:11	JN	Mt. Juliet, TN

BH 7 (2'-3') L1322293-02 Solid

Collected by: Adrian Garcia | Collected date/time: 03/01/21 08:30 | Received date/time: 03/03/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1630042	1	03/06/21 15:53	03/06/21 16:02	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1629492	1	03/04/21 13:56	03/04/21 16:56	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1630945	1	03/03/21 19:58	03/08/21 08:10	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1629391	1	03/03/21 19:58	03/04/21 14:47	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1630389	1	03/06/21 07:33	03/07/21 21:29	JN	Mt. Juliet, TN

BH 8 (0-1') L1322293-03 Solid

Collected by: Adrian Garcia | Collected date/time: 03/01/21 09:00 | Received date/time: 03/03/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1630042	1	03/06/21 15:53	03/06/21 16:02	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1629492	1	03/04/21 13:56	03/04/21 17:05	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1630945	1	03/03/21 19:58	03/08/21 08:33	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1629391	1	03/03/21 19:58	03/04/21 15:06	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1630389	1	03/06/21 07:33	03/06/21 21:37	JN	Mt. Juliet, TN

BH 8 (2-3') L1322293-04 Solid

Collected by: Adrian Garcia | Collected date/time: 03/01/21 09:30 | Received date/time: 03/03/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1630043	1	03/06/21 15:08	03/06/21 15:51	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1629492	1	03/04/21 13:56	03/04/21 17:34	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1630945	1	03/03/21 19:58	03/08/21 10:45	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1629391	1	03/03/21 19:58	03/04/21 15:25	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1630389	1	03/06/21 07:33	03/06/21 21:50	JN	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	96.0		1	03/06/2021 16:02	WG1630042

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	121		9.58	20.8	1	03/04/2021 16:46	WG1629492

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	0.0328	B J	0.0226	0.104	1	03/08/2021 07:47	WG1630945
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*		*03/08/2021 07:47*	WG1630945

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	03/04/2021 14:28	WG1629391
Toluene	U		0.00141	0.00542	1	03/04/2021 14:28	WG1629391
Ethylbenzene	U		0.000798	0.00271	1	03/04/2021 14:28	WG1629391
Total Xylenes	U		0.000953	0.00704	1	03/04/2021 14:28	WG1629391
(S) Toluene-d8	*97.8*			*75.0-131*		*03/04/2021 14:28*	WG1629391
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*03/04/2021 14:28*	WG1629391
(S) 1,2-Dichloroethane-d4	*91.8*			*70.0-130*		*03/04/2021 14:28*	WG1629391

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	14.0		1.68	4.17	1	03/06/2021 21:11	WG1630389
C28-C40 Oil Range	68.0		0.285	4.17	1	03/06/2021 21:11	WG1630389
(S) o-Terphenyl	*58.0*			*18.0-148*		*03/06/2021 21:11*	WG1630389

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	03/06/2021 16:02	WG1630042

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	10.8	J	9.65	21.0	1	03/04/2021 16:56	WG1629492

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	0.122	B	0.0228	0.105	1	03/08/2021 08:10	WG1630945
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*77.0-120*		*03/08/2021 08:10*	WG1630945

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		0.000513	0.00110	1	03/04/2021 14:47	WG1629391
Toluene	U		0.00143	0.00549	1	03/04/2021 14:47	WG1629391
Ethylbenzene	U		0.000810	0.00275	1	03/04/2021 14:47	WG1629391
Total Xylenes	U		0.000967	0.00714	1	03/04/2021 14:47	WG1629391
(S) Toluene-d8	*96.9*			*75.0-131*		*03/04/2021 14:47*	WG1629391
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*03/04/2021 14:47*	WG1629391
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*03/04/2021 14:47*	WG1629391

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	6.04		1.69	4.20	1	03/07/2021 21:29	WG1630389
C28-C40 Oil Range	23.5		0.287	4.20	1	03/07/2021 21:29	WG1630389
(S) o-Terphenyl	*56.2*			*18.0-148*		*03/07/2021 21:29*	WG1630389

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	03/06/2021 16:02	WG1630042

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	30.6		9.57	20.8	1	03/04/2021 17:05	WG1629492

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	0.0403	B J	0.0226	0.104	1	03/08/2021 08:33	WG1630945
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*77.0-120*		*03/08/2021 08:33*	WG1630945

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	03/04/2021 15:06	WG1629391
Toluene	U		0.00140	0.00540	1	03/04/2021 15:06	WG1629391
Ethylbenzene	U		0.000796	0.00270	1	03/04/2021 15:06	WG1629391
Total Xylenes	U		0.000951	0.00702	1	03/04/2021 15:06	WG1629391
(S) Toluene-d8	*96.9*			*75.0-131*		*03/04/2021 15:06*	WG1629391
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*03/04/2021 15:06*	WG1629391
(S) 1,2-Dichloroethane-d4	*98.1*			*70.0-130*		*03/04/2021 15:06*	WG1629391

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	4.42		1.67	4.16	1	03/06/2021 21:37	WG1630389
C28-C40 Oil Range	22.7		0.285	4.16	1	03/06/2021 21:37	WG1630389
(S) o-Terphenyl	*72.7*			*18.0-148*		*03/06/2021 21:37*	WG1630389

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.6		1	03/06/2021 15:51	WG1630043

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	12.6	J	9.42	20.5	1	03/04/2021 17:34	WG1629492

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	0.0535	B J	0.0222	0.102	1	03/08/2021 10:45	WG1630945
(S) a,a,a-Trifluorotoluene(FID)	*94.8*			*77.0-120*		*03/08/2021 10:45*	WG1630945

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	03/04/2021 15:25	WG1629391
Toluene	U		0.00136	0.00524	1	03/04/2021 15:25	WG1629391
Ethylbenzene	U		0.000773	0.00262	1	03/04/2021 15:25	WG1629391
Total Xylenes	U		0.000923	0.00682	1	03/04/2021 15:25	WG1629391
(S) Toluene-d8	*94.6*			*75.0-131*		*03/04/2021 15:25*	WG1629391
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*03/04/2021 15:25*	WG1629391
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*03/04/2021 15:25*	WG1629391

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	6.76		1.65	4.10	1	03/06/2021 21:50	WG1630389
C28-C40 Oil Range	22.2		0.281	4.10	1	03/06/2021 21:50	WG1630389
(S) o-Terphenyl	*63.8*			*18.0-148*		*03/06/2021 21:50*	WG1630389

Method Blank (MB)

(MB) R3628411-1 03/06/21 16:02

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

L1322287-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1322287-10 03/06/21 16:02 • (DUP) R3628411-3 03/06/21 16:02

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.4	83.5	1	1.13		10

Laboratory Control Sample (LCS)

(LCS) R3628411-2 03/06/21 16:02

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) R3628409-1 03/06/21 15:51

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

L1322305-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1322305-01 03/06/21 15:51 • (DUP) R3628409-3 03/06/21 15:51

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	85.1	84.6	1	0.544		10

Laboratory Control Sample (LCS)

(LCS) R3628409-2 03/06/21 15:51

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) R3627648-1 03/04/21 15:00

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

L1320769-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1320769-10 03/04/21 16:27 • (DUP) R3627648-3 03/04/21 16:37

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

L1322696-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1322696-02 03/04/21 18:12 • (DUP) R3627648-6 03/04/21 18:21

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	38.6	45.3	1	16.0		20

Laboratory Control Sample (LCS)

(LCS) R3627648-2 03/04/21 15:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	195	97.6	90.0-110	

L1322696-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1322696-01 03/04/21 17:43 • (MS) R3627648-4 03/04/21 17:53 • (MSD) R3627648-5 03/04/21 18:02

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	553	47.8	635	647	106	108	1	80.0-120			1.91	20

Method Blank (MB)

(MB) R3628709-2 03/08/21 02:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0509	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.2*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3628709-1 03/08/21 01:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.82	87.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*77.0-120*	

Method Blank (MB)

(MB) R3627417-2 03/04/21 11:00

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	*97.2*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3627417-1 03/04/21 10:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.130	104	70.0-123	
Ethylbenzene	0.125	0.108	86.4	74.0-126	
Toluene	0.125	0.110	88.0	75.0-121	
Xylenes, Total	0.375	0.309	82.4	72.0-127	
(S) Toluene-d8			*94.1*	*75.0-131*	
(S) 4-Bromofluorobenzene			*99.3*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*107*	*70.0-130*	

L1321750-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1321750-01 03/04/21 18:34 • (MS) R3627417-3 03/04/21 18:53 • (MSD) R3627417-4 03/04/21 19:12

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	5.27	56.4	87.2	82.2	584	490	40	10.0-149	V	V	5.85	37
Ethylbenzene	5.27	0.887	3.74	3.86	54.2	56.4	40	10.0-160			3.05	38
Toluene	5.27	274	290	282	300	140	40	10.0-156	E V	E	2.95	38
Xylenes, Total	15.8	U	10.4	10.8	65.5	68.0	40	10.0-160			3.80	38
(S) Toluene-d8					*89.3*	*89.6*		*75.0-131*				
(S) 4-Bromofluorobenzene					*103*	*103*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*103*	*101*		*70.0-130*				

Method Blank (MB)

(MB) R3628074-1 03/06/21 18:22

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	*75.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3628074-2 03/06/21 18:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.4	80.8	50.0-150	
(S) o-Terphenyl			*79.3*	*18.0-148*	

L1320341-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1320341-19 03/06/21 18:48 • (MS) R3628074-3 03/06/21 19:02 • (MSD) R3628074-4 03/06/21 19:14

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	49.4	6.30	38.0	39.7	64.2	67.9	1	50.0-150			4.38	20
(S) o-Terphenyl					*76.9*	*73.5*		*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.
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.
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.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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.

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

1322293

Analysis Request of Chain of Custody Record

Page : 1 of 1

Tetra Tech, Inc.

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

H113

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	James A #12 Flowline	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02366
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Adrian Garcia
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
-C1	BH 7 (0'-1')	03/01/21	800		X				X		1	N	X		X												X					
C2	(2'-3')	03/01/21	830		X				X		1	N	X		X												X					
03	BH 8 (0-1')	03/01/21	900		X				X		1	N	X		X												X					
04	(2-3')	03/01/21	930		X				X		1	N	X		X												X					

Relinquished by:	Date: 3/2/21	Time: 11:00	Received by:	Date: 3-2-21	Time: 11:00
Relinquished by:	Date: 3-2-21	Time: 14:30	Received by:	Date: 3-2-21	Time: 14:30
Relinquished by:	Date:	Time:	Received by:	Date: 3-3-21	Time: 800

LAB USE ONLY

Sample Temperature

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		

ORIGINAL COPY

All Cont <500 cpm MPA3 3-3-21

4 Total

APPENDIX E
NMSLO Seed Mixture

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Eddy Area, New Mexico

JAMES A #012

March 29, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

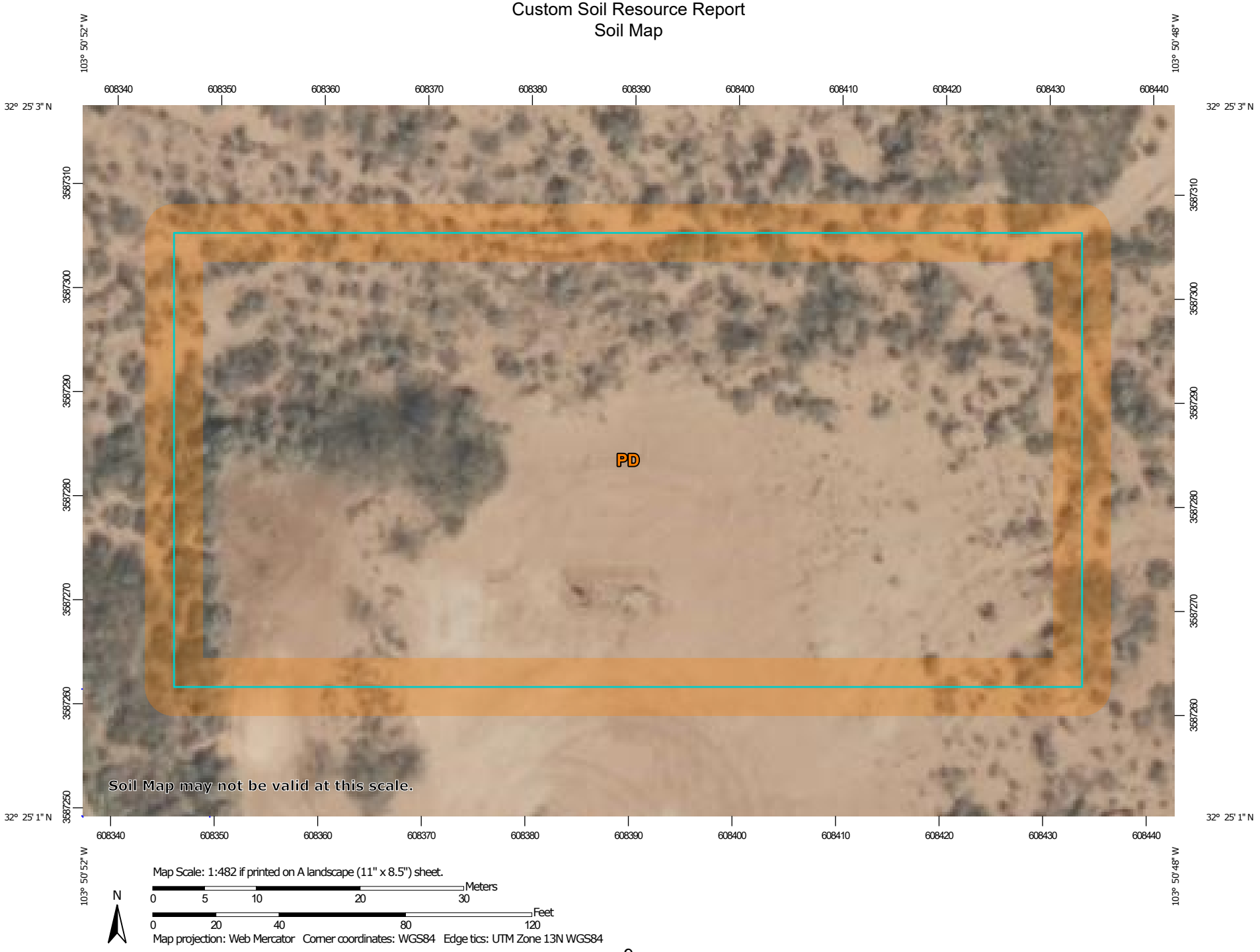
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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

Soil Map

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

Custom Soil Resource Report
Soil Map



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: Eddy Area, New Mexico
Survey Area Data: Version 16, 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
PD	Pajarito-Dune land complex, 0 to 3 percent slopes	0.9	100.0%
Totals for Area of Interest		**0.9**	**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.

Eddy Area, New Mexico

PD—Pajarito-Dune land complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w55
Elevation: 3,000 to 5,000 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Pajarito and similar soils: 46 percent
Dune land: 45 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pajarito

Setting

Landform: Dunes, interdunes, plains
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 36 inches: fine sandy loam
H3 - 36 to 72 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Description of Dune Land

Setting

Landform: Dune fields
Landform position (two-dimensional): Footslope, shoulder, backslope
Landform position (three-dimensional): Talf
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy loam

Interpretive groups

Land capability classification (irrigated): None specified
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: No

Largo

Percent of map unit: 4 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

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NMSLO Seed Mix Sandy Loam (SL)

SANDY LOAM (SL) SITES SEED MIXTURE:

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

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

- VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.
- Double above seed rates for broadcast or hydroseeding.
- If Parry penstemon is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow or Nelson globemallow.
- If a species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: Robert Hamlet Date: _____

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 26475

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 26475
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. The variance request for the alternative confirmation sampling plan including twenty-two (22) confirmation floor samples and twenty-eight (28) confirmation sidewall samples is approved. All contaminated soil must be reclaimed/remediated and removed down to 4 feet below surface or until it meets strictest closure criteria. The variance for the liner located four (4) ft below ground surface is approved with removal of all contaminated soil down to that depth. If equipment/high pressure pipelines hinder excavation, use a hydrovac to “safely” remove contaminated soil. Place liner at 4 feet below surface and backfill with clean material.	8/17/2021