



February 8, 2021

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

**Re: Release Characterization and Remediation Work Plan
ConocoPhillips
Britt B Well #24 Flowline Release
Unit Letter L, Section 11, Township 20 South, Range 37 East
Lea County, New Mexico
1RP-1530
Incident ID nPAC0603034879**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a historical release that occurred from a flowline associate with the Britt B Well #24 (API No. 30-025-21223). The release footprint is located in the Public Land Survey System (PLSS) Unit Letter L, Section 11, Township 20 South, Range 37 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.585491°, -103.229862°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Attachment A), the release was discovered on January 12, 2006. According to the C-141, the release occurred as a result of possible internal corrosion on a 2-inch steel flowline from the Britt B Well #24. The release consisted of 38 barrels (bbls) of oil and produced water affecting an area of 3,282 square feet (SF). During immediate response actions, a vacuum truck recovered 20 bbls of free liquid. The initial C-141 report form was submitted to the New Mexico Oil Conservation District (NMOCD) on January 23, 2006. The release was subsequently assigned the Remediation Permit (RP) number 1RP-1530 and the Incident ID nPAC0603034879. The 1RP-1530 release is included in an Agreed Compliance Order-Releases (ACO-R) between COP and the NMOCD signed on May 7 and 9, 2019, respectively.

SITE CHARACTERIZATION

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

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within 800 meters of the release Site. Furthermore, there are no water wells within 1,600 meters (approximately 1 mile) of the Site. However, there are seven (7) water wells within 3,000 meters (approximately 2 miles) of the Site. The average depth to groundwater is 53 feet (ft) below ground surface (bgs). The site characterization data is included in Appendix B.

Tetra Tech

901 West Wall St., Suite 100, Midland, TX 79701

Tel 432.682.4559

Fax 432.682.3946

www.tetrattech.com

REGULATORY FRAMEWORK

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

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

Constituent	Remediation RRAL
Chloride	10,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 mg/kg

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

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

INITIAL ASSESSMENT ACTIVITIES

On January 13, 2006, Environmental Plus, Inc (EPI) on behalf of ConocoPhillips conducted an initial site assessment to photograph and document the extent of the release. Based on the findings of the initial site assessment, the release flow path consisted of approximately 3,280 SF of pasture and an overspray area of 545 SF. No analytical samples were collected during the initial site assessment, and the depth of impact was not determined.

The findings of the initial site assessment and a recommended soil sampling plan were documented in a Delineation Proposal and submitted to the NMOCD on June 26, 2007 (Appendix C). The submitted deliverable provided a release extent and recommended five borings and soil sampling to determine the vertical extent of contamination.

There is no documented evidence that the NMOCD approved the submitted proposal. Tetra Tech conducted a visual Site inspection on behalf of COP in June 2020 to evaluate current Site conditions. Sparse vegetative cover, some soil discoloration, and occasional asphaltic staining was observed inside the footprint during this Site inspection. Photographic documentation of the release area during the June 2020 Site inspection is included in Appendix D.

ADDITIONAL SITE ASSESSMENT

On behalf of COP, Tetra Tech personnel were on Site in October and November 2020 to conduct soil sampling to achieve vertical and horizontal delineation of the release. A total of three (3) borings (BH-1 through BH-3) were installed using an air rotary drilling rig to depths of 30 ft bgs within the release extent to achieve vertical delineation of the release extent. A total of six (6) hand auger borings (AH-4 through AH-9) were advanced along the perimeter of the release to depths of 2 ft bgs to achieve horizontal delineation of the release extent. Soils at the Site consist of brown silty sands from the surface down to 30 ft bgs. Figure 3 depicts the release extent and the 2020 soil boring locations, and GPS coordinates for the boring locations are presented in Table 1.

Soils were field screened for salinity using an ExTech EC400 ExStik to determine sampling intervals. A total of thirty-nine (39) samples were collected from the nine (9) borings (BH-1 through BH-3, and AH-4

through AH-9) and submitted to Pace Analytical National Center for Testing & Innovation (Pace) in Nashville, Tennessee to be analyzed for chlorides via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix E.

SUMMARY OF SAMPLING RESULTS

Results from the October and November 2020 soil sampling events are summarized in Table 2. The analytical results associated with the interior boring locations (BH-1 through BH-3) exceeded the Site reclamation RRAL (0-4 ft bgs) for TPH (100 mg/kg) in the sample intervals collected from the top 3 ft. There were no other analytical results which exceeded the Site RRALs for TPH, chlorides, or BTEX in the interior boring locations. The analytical results associated with the samples collected from the perimeter borings (AH-4 through AH-9) were below the Site RRALs for all analyzed constituents.

REMEDATION WORK PLAN

Based on the analytical results, COP proposes to remove the remaining impacted material as shown in Figure 4. Impacted soils will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum 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.

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 backfilled with clean material to surface grade. The estimated volume of material to be remediated is approximately 1,380 cubic yards.

ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, COP proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 5. Nineteen (19) confirmation floor samples and fifty (50) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses a surface area of approximately 9,300 SF.

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

SITE RECLAMATION AND RESTORATION PLAN

The backfilled areas will be seeded Spring 2021 (or the first favorable growing season) to aid in revegetation. Based on soils at the Site, the New Mexico State Land Office (NMSLO) Sandy (S) 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 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.

Release Characterization and Remediation Work Plan
February 8, 2021

ConocoPhillips

CONCLUSION

ConocoPhillips proposes to begin remediation activities at the Site within 1 year of NMOCD plan approval. The Britt B Well #24 Flowline Release (1RP-1530) is included in an Agreed Compliance Order-Releases (ACO-R) between COP and the NMOCD signed on May 7 and 9, 2019, respectively. COP is dedicated to addressing and closing all historical releases included in the ACO-R, and given the number of releases to be addressed, 1 year is anticipated to be a practicable timeline. 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) 739-7874 or Christian at (512) 338-2861.

Sincerely,

Tetra Tech, Inc.



Samantha K. Abbott, P.G.
Senior Staff Geologist



Christian M. Llull, P.G.
Project Manager

cc:

Mr. Marvin Soriwei, RMR – ConocoPhillips

Mr. Charles Beauvais, GPBU - ConocoPhillips

LIST OF ATTACHMENTS

Figures:

- Figure 1 – Site Location Map
- Figure 2 – Topographic Map
- Figure 3 – Release Extent and Site Assessment
- Figure 4 – Proposed Remediation Extent
- Figure 5 – Alternative Confirmation Sampling Plan

Tables:

- Table 1 – Boring Location Coordinates
- Table 2 – Summary of Analytical Results – Soil Assessment

Appendices:

- Appendix A – C-141 Forms
- Appendix B – Site Characterization Data
- Appendix C – Delineation Proposal (EPI, June 26, 2007)
- Appendix D – Photographic Documentation
- Appendix E – Laboratory Analytical Report
- Appendix F – NMSLO Seed Mixture Details

FIGURES



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-1530\FIGURE 1 SITE LOCATION_1RP-1530.MXD

Source: Esri Street Map, November 2017.



TETRA TECH

www.tetrattech.com

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

CONOCOPHILLIPS

1RP-1530
(32.585491°, -103.229862°)
LEA COUNTY, NEW MEXICO

BRITT B WELL #24 FLOWLINE RELEASE
SITE LOCATION MAP

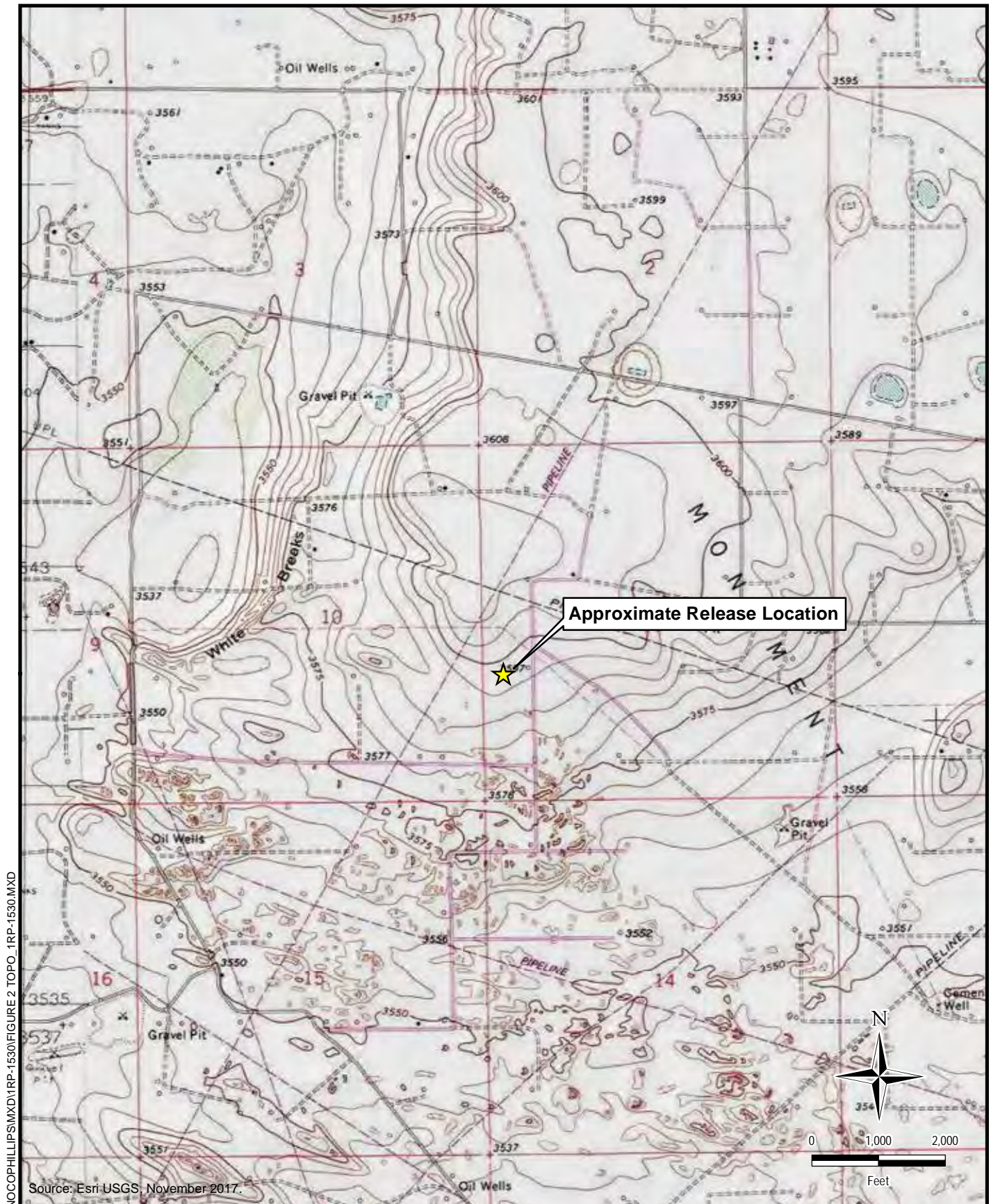
PROJECT NO.: 212C-MD-02334

DATE: DECEMBER 16, 2020

DESIGNED BY: AJW

Figure No.

1



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-1530\FIGURE 2 TOPO. 1RP-1530.MXD


TETRA TECH
www.tetrattech.com

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

CONOCOPHILLIPS

1RP-1530

 (32.585491°, -103.229862°)
 LEA COUNTY, NEW MEXICO

**BRITT B WELL #24 FLOWLINE RELEASE
 TOPOGRAPHIC MAP**

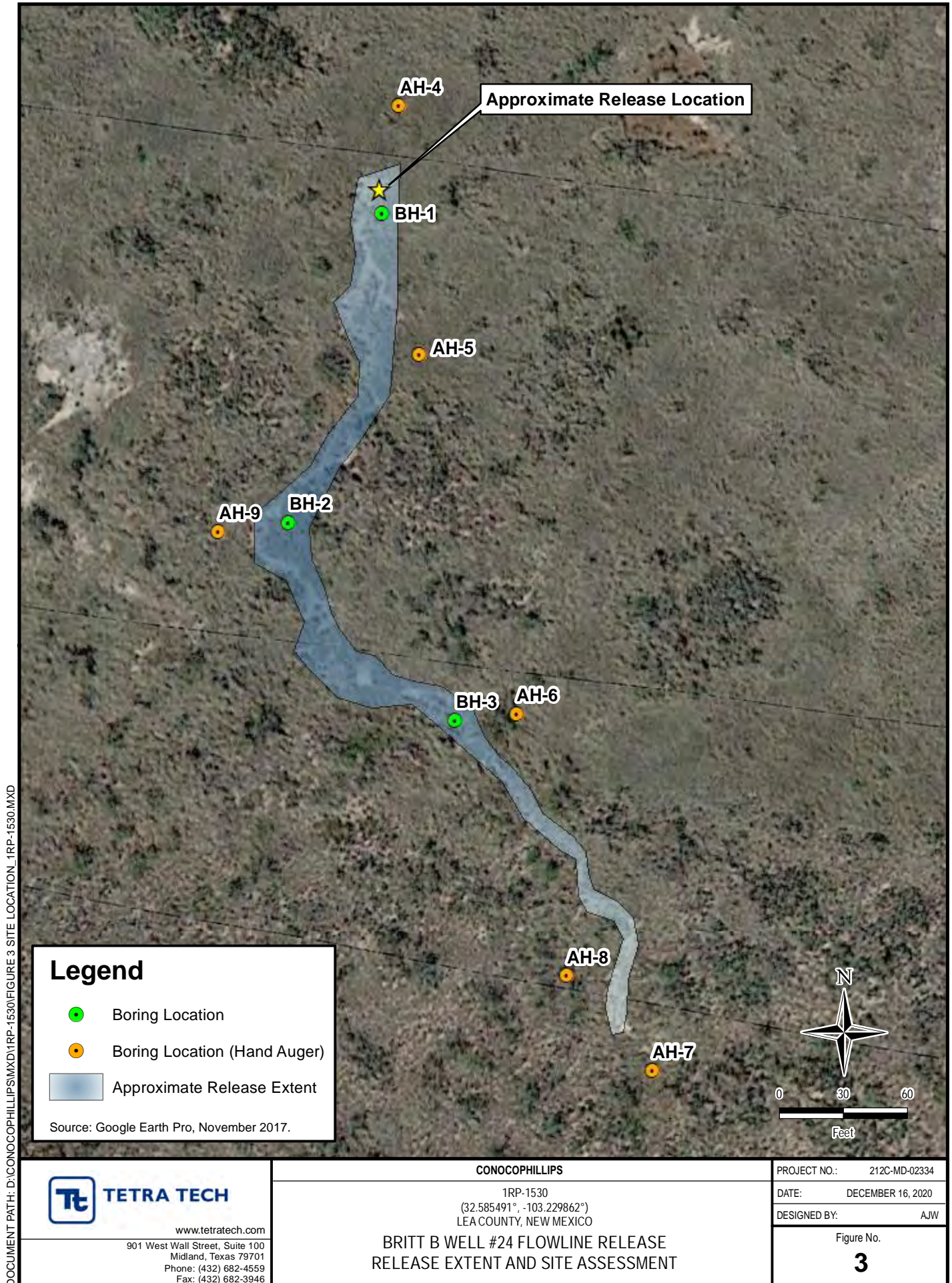
PROJECT NO.: 212C-MD-02334

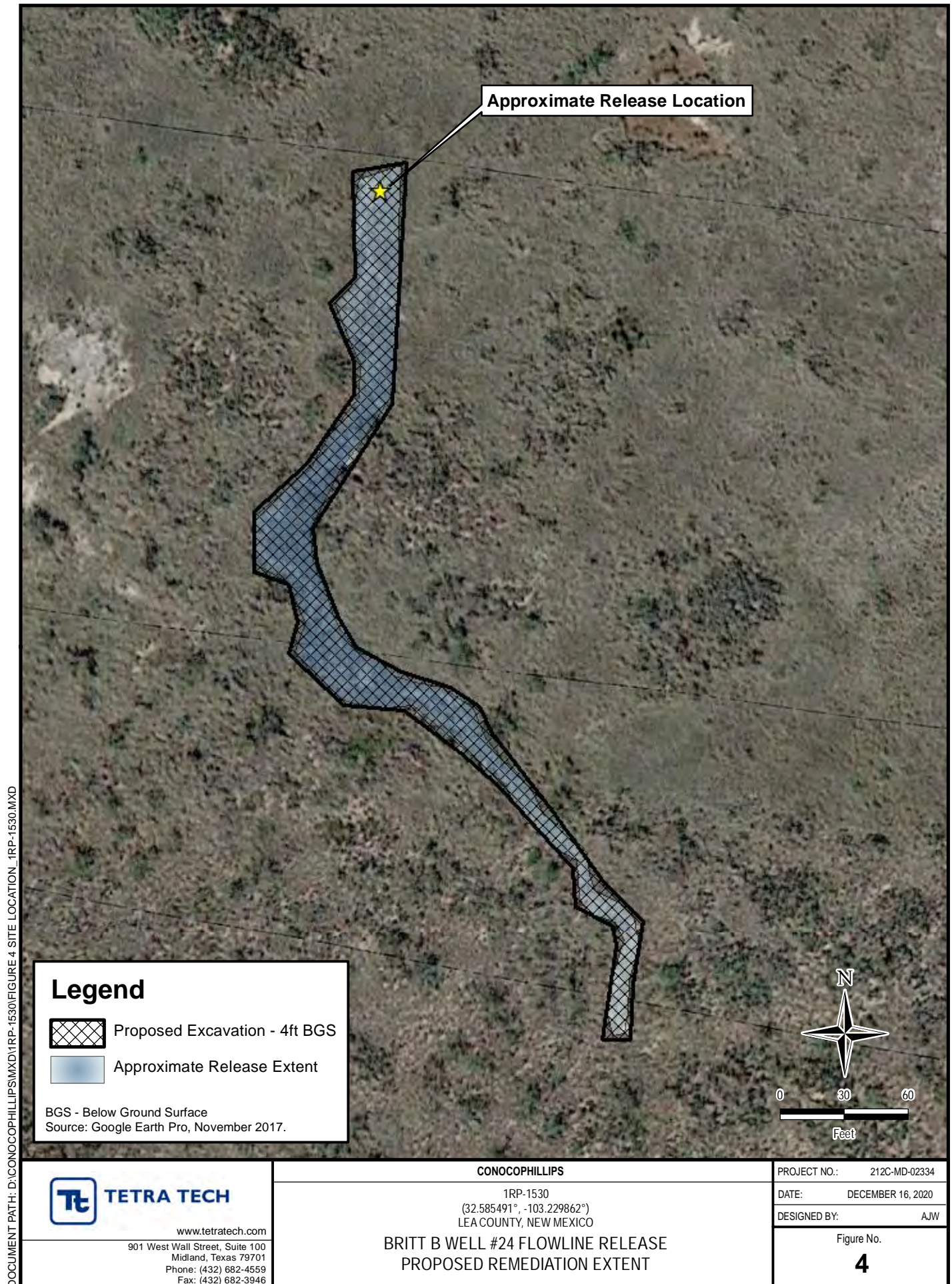
DATE: DECEMBER 16, 2020

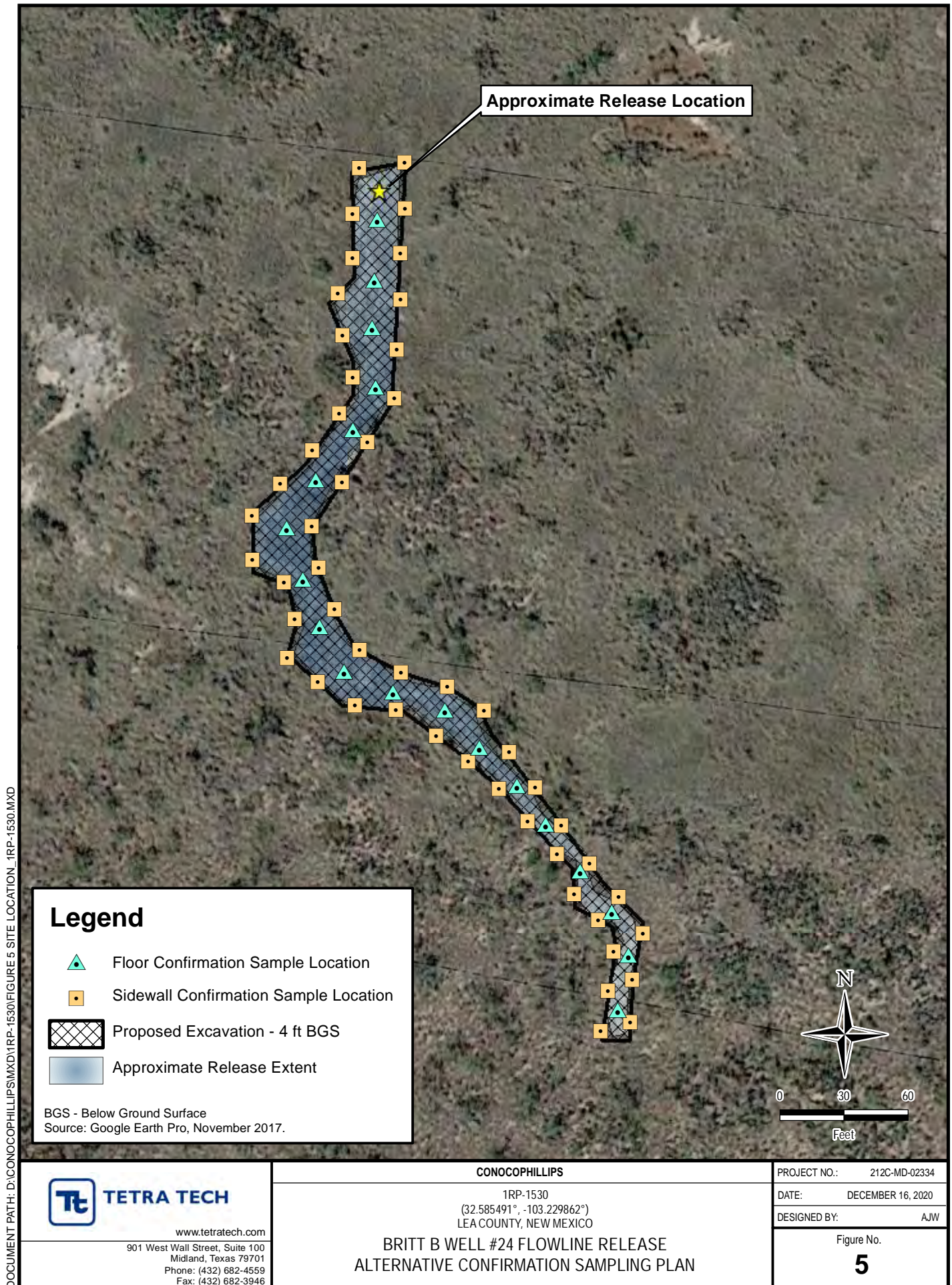
DESIGNED BY: AJW

Figure No.

2







TABLES

TABLE 1
BORING LOCATION COORDINATES
SOIL ASSESSMENT - 1RP-1530
CONOCOPHILLIPS
BRITT B WELL #24 FLOWLINE RELEASE
LEA COUNTY, NM

Boring ID	Latitude	Longitude
BH-1	32.585459	-103.229857
BH-2	32.585063	-103.230003
BH-3	32.584807	-103.229754
AH-4	32.585598	-103.229828
AH-5	32.585277	-103.229801
AH-6	32.584815	-103.229661
AH-7	32.584354	-103.229460
AH-8	32.584477	-103.229588
AH-9	32.585052	-103.230111

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT - 1RP-1530
CONOCOPHILLIPS
BRITT B WELL #24 FLOWLINE RELEASE
LEA 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		DRO		ORO		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	10/28/2020	0-1	-	-	47.2		< 0.00108		< 0.00539		< 0.00269		< 0.00700		-	0.0239	B J	43.9		106		150
		2-3	-	-	68.5		< 0.00108		0.0200		0.00199	J	0.00707		0.0291	13.7	B	653		513		1180
		4-5	-	-	36.6		< 0.00108		< 0.00541		< 0.00271		< 0.00703		-	0.0315	B J	5.42		7.54		13.0
		6-7	-	-	25.0		< 0.00107		< 0.00536		< 0.00268		< 0.00696		-	0.0275	B J	1.94	J	1.94	J	3.91
		9-10	-	-	28.8		< 0.00105		< 0.00524		< 0.00262		< 0.00681		-	0.0250	B J	< 4.09		2.41	J	2.44
		14-15	-	-	< 20.8		< 0.00108		< 0.00541		< 0.00270		< 0.00703		-	0.0279	B J	< 4.16		1.87	J	1.90
		19-20	-	-	< 25.7		< 0.00157		< 0.00785		< 0.00392		< 0.0102		-	0.0337	B J	14.6		71.2		85.8
		24-25	-	-	18.2	J	< 0.00143		< 0.00716		< 0.00358		< 0.00931		-	0.0299	B J	< 4.86		1.06	J	1.09
BH-2	10/28/2020	29-30	-	-	19.9	J	< 0.00131		< 0.00654		< 0.00327		< 0.00850		-	0.0290	B J	< 4.61		< 4.61		0.0290
		0-1	-	-	428		< 0.00111		< 0.00553		< 0.00277		< 0.00719		-	0.0275	B J	2100		3180		5280
		2-3	-	-	305		< 0.00110		< 0.00549		< 0.00275		< 0.00714		-	0.0298	B J	1300		2250		3550
		4-5	-	-	213		< 0.00109		< 0.00547		0.000820	J	0.000894	J	0.00171	0.155	B	284		219		503
		6-7	-	-	63.6		< 0.00111		< 0.00553		< 0.00276		< 0.00719		-	< 0.105		61.3		98.5		160
		9-10	-	-	13.8	J	< 0.00112		< 0.00559		< 0.00279		< 0.00726		-	< 0.106		2.78	J	4.54		7.32
		14-15	-	-	< 20.7		< 0.00107		< 0.00537		< 0.00268		< 0.00698		-	< 0.104		< 4.15		0.299	J	0.299
		19-20	-	-	211		< 0.00141		< 0.00706		< 0.00353		< 0.00918		-	< 0.121		3.09	J	4.34	J	7.43
BH-3	10/28/2020	24-25	-	-	85.6		< 0.00130		< 0.00649		< 0.00324		< 0.00843		-	< 0.115		3.32	J	4.35	J	7.67
		29-30	-	-	77.4		< 0.00123		< 0.00617		< 0.00309		< 0.00802		-	< 0.112		1.89	J	2.49	J	4.38
		0-1	-	-	23.8		< 0.00111		< 0.00554		< 0.00277		< 0.00720		-	< 0.105		19.8		44.9		64.7
		2-3	-	-	34.1		< 0.00108		< 0.00540		< 0.00270		< 0.00701		-	< 0.104		38.5		80.9		119
		4-5	-	-	35.3		< 0.00112		< 0.00559		< 0.00279		< 0.00726		-	< 0.106		8.69		16.7		25.4
		6-7	-	-	384		< 0.00112		< 0.00561		< 0.00281		< 0.00730		-	< 0.106		5.60		8.23		13.8
		9-10	-	-	559		< 0.00111		< 0.00554		< 0.00277		< 0.00721		-	< 0.105		4.80		8.28		13.1
		14-15	-	-	23.6		< 0.00105		< 0.00527		< 0.00264		< 0.00686		-	< 0.103		17.3		37.5		54.8
AH-4	11/4/2020	19-20	-	-	27.8		< 0.00134		< 0.00670		< 0.00335		< 0.00872		-	< 0.117		2.11	J	3.25	J	5.36
		24-25	-	-	13.7	J	< 0.00141		< 0.00704		< 0.00352		< 0.00915		-	< 0.120		< 4.81		0.477	J	0.477
AH-4	11/4/2020	29-30	-	-	27.5		< 0.00130		< 0.00651		< 0.00325		< 0.00846		-	< 0.115		< 4.60		1.47	J	1.47
		0-1	32	-	< 20.2		< 0.00102		< 0.00509		< 0.00254		0.00122	J	0.00122	< 0.101		6.24		20.0		26.2
AH-5	11/4/2020	1-2	41	-	< 20.2		< 0.00102		< 0.00508		< 0.00254		0.00109	J	0.00109	< 0.101		6.66		34.0		40.7
		0-1	37	-	< 20.1		< 0.00101		< 0.00505		< 0.00253		< 0.00657		-	< 0.101		3.70	J	20.0		23.7
AH-6	11/4/2020	1-2	42	-	< 20.1		< 0.00101		< 0.00504		< 0.00252		< 0.00656		-	0.0347	J	7.85		42.8		50.7
		0-1	36	-	< 20.1		< 0.00101		< 0.00504		< 0.00252		0.000898	J	0.000898	< 0.100		4.19		18.7		22.9
AH-7	11/4/2020	1-2	31	-	< 20.1		< 0.00101		< 0.00504		< 0.00252		0.00656		-	< 0.100		3.62	J	11.7		15.3
		0-1	45	-	< 20.3		< 0.00103		< 0.00514		< 0.00257		< 0.00668		-	< 0.101		3.75	J	21.7		25.5
AH-8	11/4/2020	1-2	32	-	< 20.4		< 0.00104		< 0.00518		< 0.00259		< 0.00673		-	< 0.102		3.86	J	18.6		22.5
		0-1	42	-	< 20.1		< 0.00101		< 0.00505		< 0.00253		< 0.00657		-	< 0.101		2.71	J	15.6		18.3
AH-9	11/4/2020	1-2	45	-	< 20.1		< 0.00101		< 0.00507		< 0.00253		< 0.00659		-	< 0.101		3.85	J	19.9		23.8
		0-1	36	-	< 20.3		< 0.00103		< 0.00514		< 0.00257		0.000991	J	0.000991	< 0.101		3.75	J	16.7		20.5
AH-9	11/4/2020	1-2	39	-	< 20.2		< 0.00102		< 0.00512		< 0.00256		0.000921	J	0.000921	0.0360	B J	19.5		21.9		41.4

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 RRLs

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.
P1 RPD value not applicable for sample concentrations less than 5 times the reporting limit.

APPENDIX A C-141 Forms

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company ConocoPhillips Company	Contact John Abney
Address 4001 Penbrook Street Odessa, TX 79762	Telephone No. (505)391-3128
Facility Name Britt B Well #24	Facility Type Oil Well

Surface Owner BLM	Mineral Owner BLM	Lease No. 031621B
-------------------	-------------------	-------------------

API # 30 02S 212230000

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	11	20S	37E	1980	South	660	West	Lea

Latitude 32 35.123N Longitude 103 13.763W

NATURE OF RELEASE

Type of Release Oil and Produced water	Volume of Release 38 bbls	Volume Recovered 20 bbls
Source of Release 2" steel flow line	Date and Hour of Occurrence 1/12/06	Date and Hour of Discovery 1/13/06 11am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Pat Caperton	
By Whom? John Abney	Date and Hour 1/13/2006 2:15 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA


Describe Cause of Problem and Remedial Action Taken.*

A 2" steel flow line leaked possibly due to internal corrosion, a section of the pipe will be cut to determine the cause. The well was shut in until the joint of pipe could be replaced. The line was repaired, and tested and the line was walked out to locate any other signs of potential leaks, none were found.

Describe Area Affected and Cleanup Action Taken.*

The affected area is 3282 sq.ft. The area will be delineated to determine the appropriate clean up procedures.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: John Abney	Approved by District Supervisor:	
Title: SHEaR Specialist	Approval Date:	Expiration Date:
E-mail Address: john.h.abney@conocophillips.com	Conditions of Approval:	
Date: 01/23/2006 Phone: (505)391-3128	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

ConocoPhillips - 217817
Incident # n PAC0603034879
Released to Imaging: 4/24/2023 3:16:08 PM
Amplification - PAC0603050368

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Charles R. Beauvais II Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 04/24/2023

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: Charles R. Beauvais II Date: _____

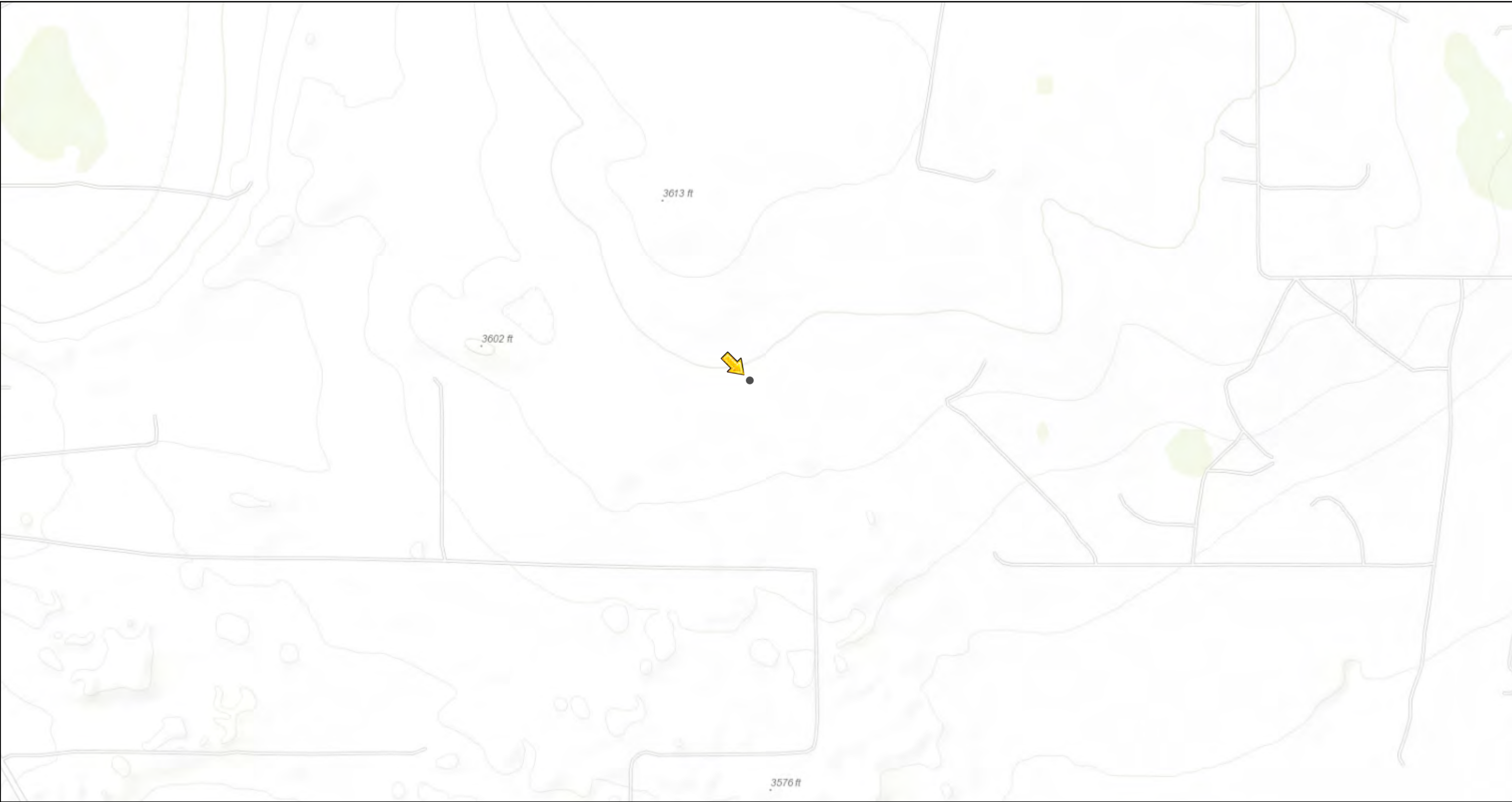
email: _____ Telephone: _____

OCD OnlyReceived by: Jocelyn Harimon Date: 04/24/2023☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature: _____ Date: 04/24/2023





APPENDIX B

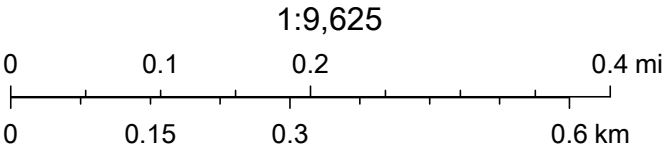
Site Characterization Data

1RP-1530



7/27/2020, 1:35:19 PM

-  Override 1
-  OSE Streams
-  PLJV Probable Playas
-  OSE Water-bodies






Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community


KARST POTENTIAL MAP

1RP-1530

Legend

-  1RP-1530
-  High
-  Low
-  Medium

Hobbs

 1RP-1530

Eunice

Google Earth

© 2020 Google

Image Landsat / Copernicus

Released to Imaging: 4/24/2023 3:16:08 PM



10 mi



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

(R=POD has been replaced, O=orphaned,

C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
L_05350	L	LE		2	1	13	20S	37E		668279	3605980*	2262	100		
L_10150	L	LE		1	4	09	20S	37E		663842	3606715*	2297	46	30	16
L_10117	L	LE		1	1	2	13	20S	37E	668580	3606086*	2520	130	70	60
L_12457 POD1	L	LE		4	4	3	34	19S	37E	665007	3609413	2924	74	60	14
L_10166 POD1	L	LE		4	4	3	34	19S	37E	665098	3609459*	2932	35		
L_10166 POD2	L	LE		4	4	3	34	19S	37E	665098	3609459*	2932	35		
L_10166 POD3	L	LE		4	4	3	34	19S	37E	665098	3609459*	2932	35		

Average Depth to Water: **53 feet**

Minimum Depth: **30 feet**

Maximum Depth: **70 feet**

Record

7

Count:

UTMNAD83 Radius Search (in meters):

Easting (X): 666139.84

Northing (Y): 3606717.8

Radius: 3000

*UTM location was derived from PLSS - see Help

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

10/15/20 11:50 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX C Delineation Proposal (EPI June 26, 2007)



26 June 2007

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

RE: Delineation Proposal – ConocoPhillips Britt B #24 Well
NMOCD 1RP #368; EPI Ref. #150015
UL-L (NW¼ of the SW¼) of Section 11, Township 20 South, Range 37 East
Latitude N 32° 35' 07.81" and Longitude W 103° 13' 47.46"

Dear Mr. Johnson:

On 12 January 2006, a release from a 2-inch steel flowline occurred due to probable internal corrosion. The release consisted of approximately 38 barrels of crude oil and produced water, of which 20 barrels were recovered. ConocoPhillips retained Environmental Plus, Inc. (EPI) in January 2006 to delineate the extent of impacted soil at the site. This letter report documents site assessment and recommends further delineation via soil borings or test trenches.

Site Background

The site is located in the NW¼ of the SW¼ of Section 11, Township 20 South, Range 37 East at an elevation of approximately 3,597 feet above mean sea level (reference *Figures 1 and 2*). The property is owned by the South West Cattle Company (i.e., Mr. Trent Stradley). A search for area water wells was completed utilizing the New Mexico Office of the State Engineers website and a database maintained by the United States Geological Survey (USGS). A total of 6 wells were recorded in the databases searched. The well identified as USGS #1 was the closest well to the site with a recorded groundwater depth. The most recent gauging indicated a groundwater depth of 26.95-feet below ground surface (bgs). No water supply wells or bodies of surface water were found to be located within a 1,000-foot radius of the release location (reference *Figure 2*). Based on this information, it was determined that the distance between the contamination and groundwater was less than 50 feet. Utilizing this information, it was determined that the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site are as follows:

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	100 parts per million

***Chloride and Sulfate residuals may not be capable of impacting groundwater above NMWQCC of 250 mg/L and 600 mg/L, respectively*

Field Work

Upon discovery, ConocoPhillips personnel shut in the well, repaired and tested the line in addition to inspection for other potential signs of failure. EPI field personnel conducted an initial site

Mr. Larry Johnson
26 June 2007

assessment of 13 January 2006 to photograph and document the extent of the release. Based on the initial site assessment, the release flowpath consisted of approximately 3,280-square feet of pasture and an overspray area of 545-square feet to an unknown depth.

Recommendations

Based on initial site assessment activities, it is recommended that a soil boring be advanced initially at the point of release then at 100-foot intervals along the extent of release for a total of five (5) soil borings (reference *Figure 4*). Soil samples should be collected at 2-foot and 5-foot bgs and at 5-foot intervals thereafter until two (2) consecutive samples are below remedial threshold/goals. Remedial threshold/goals will be determined in the field utilizing a portion of each sample for organic vapor and chloride concentration analyses. The remaining portion will be submitted to an independent laboratory for verification of total petroleum hydrocarbons (TPH); benzene, toluene, ethylbenzene and total xylenes (BTEX constituents); chlorides and sulfates. A remediation proposal will be developed upon receipt of laboratory analytical data.

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

Jesse Sosa
ConocoPhillips Corporation
1410 West County Road
Hobbs, NM 88240
(505) 391-3126
jesse.a.sosa@conocophillips.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

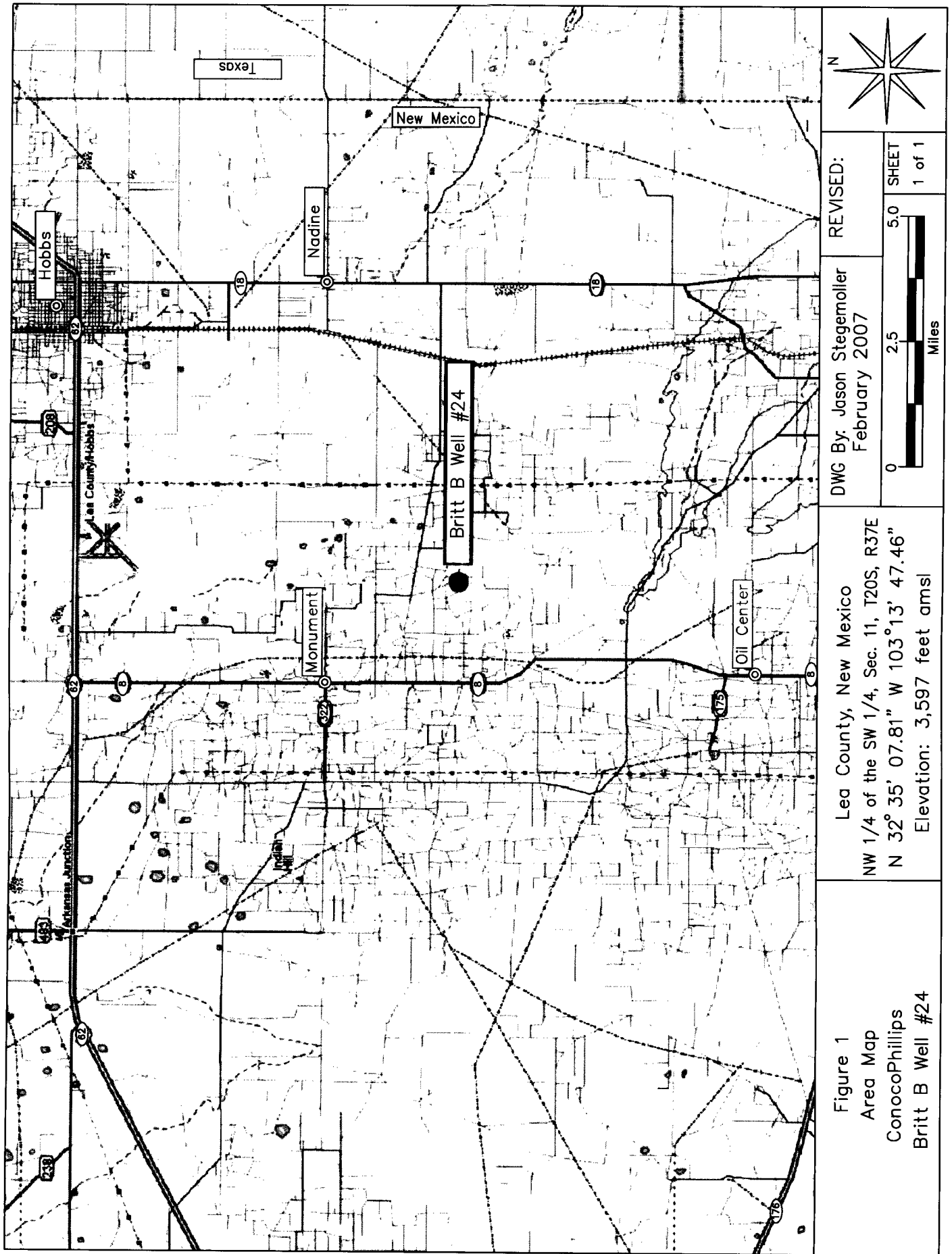


Jason Stegemoller
Environmental Scientist

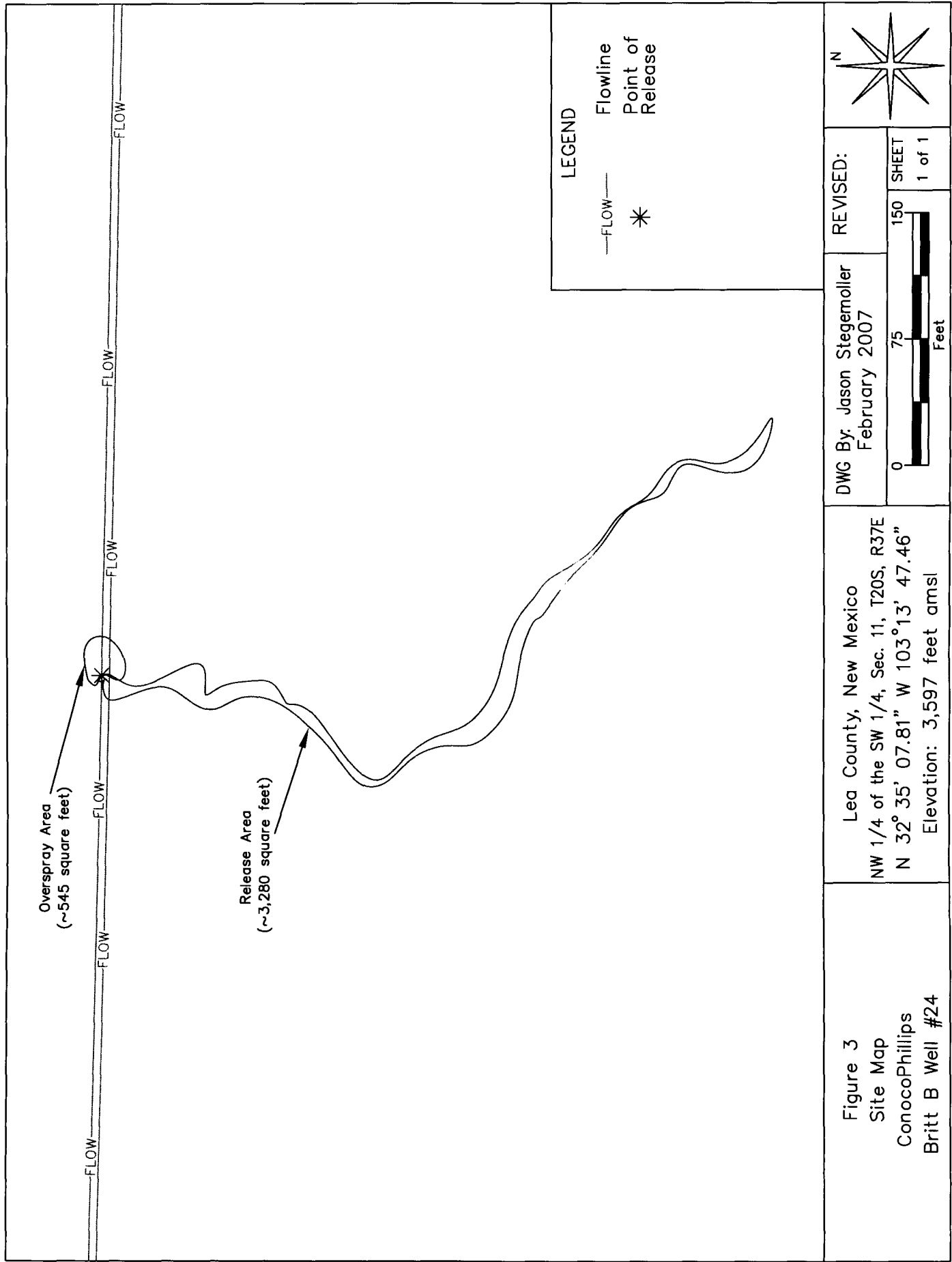
cc: John Abney, ConocoPhillips – Hobbs, NM
Trent Stradley, Southwest Cattle Company – Hobbs, NM
File

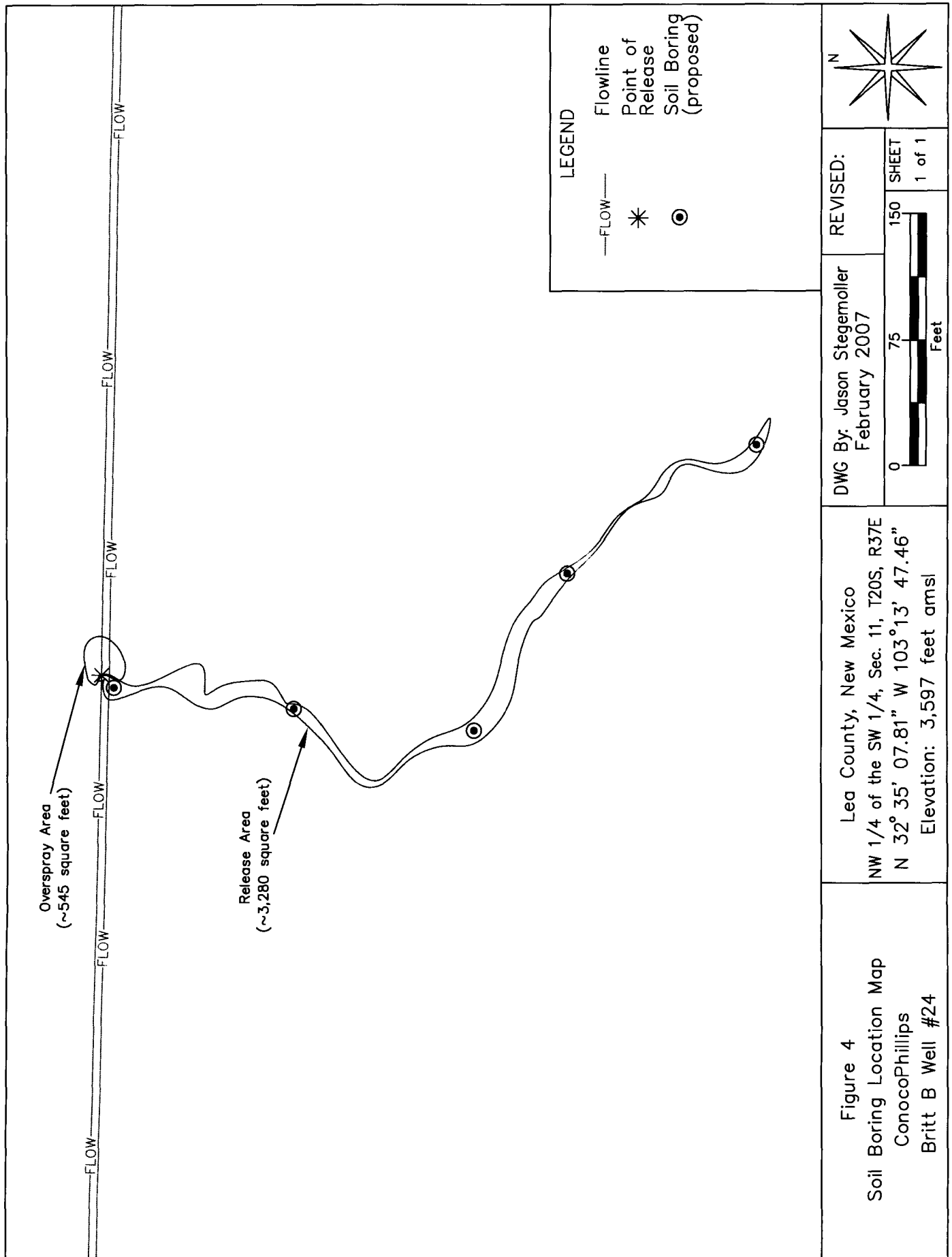
encl. Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map
Figure 4 – Proposed Soil Boring Location Map
Table 1 – Well Information Report
Attachment I – Informational Copy of Initial C-141
Attachment II – Site Photographs

FIGURES









TABLES

TABLE 1
WELL INFORMATION REPORT*
ConocoPhillips - Britt B Well #24 (EPI Ref. #150015)

Well Number	Diversion ^A	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
L 05686	0	Gulf Oil Corporation	PRO	20S	37E	03 3 2 3	N32° 35' 54.21"	W103° 14' 35.42"		3,543	
L 08068	0	S W Cattle Company	DOM	20S	37E	10 1	N 32° 32' 38.13"	W 103° 15' 36.88"		3,545	
L 10150	0	S&U Cattle Co.	STK	20S	37E	09 4 1	N 32° 33' 43.71"	W 103° 17' 9.8"		3,540	
L 10356	0	S-W Cattle Co.	STK	20S	37E	09 3 1 1	N 32° 33' 43.71"	W 103° 17' 9.8"		3,540	
USGS #1				19S	37E	33 4 4 4	N32° 36' 18.00"	W103° 14' 53.00"	16-Feb-06	3,559	26.95
USGS #2				20S	37E	19 1 1	N 32° 33' 55"	W 103° 15' 15.41"	22-Feb-06	3,522	15.45

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet) and USGS Database.

Shaded well information indicates well location not shown on Figure 2

^A = in acre feet per annum

^B = Interpolated from USGS Topographical Map

STK = Livestock Watering

DOM = Domestic Water Supply

PRO = Production

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

(quarters are biggest to smallest - X Y are in Feet - UTM are in Meters)

ATTACHMENT I

SITE PHOTOGRAPHS

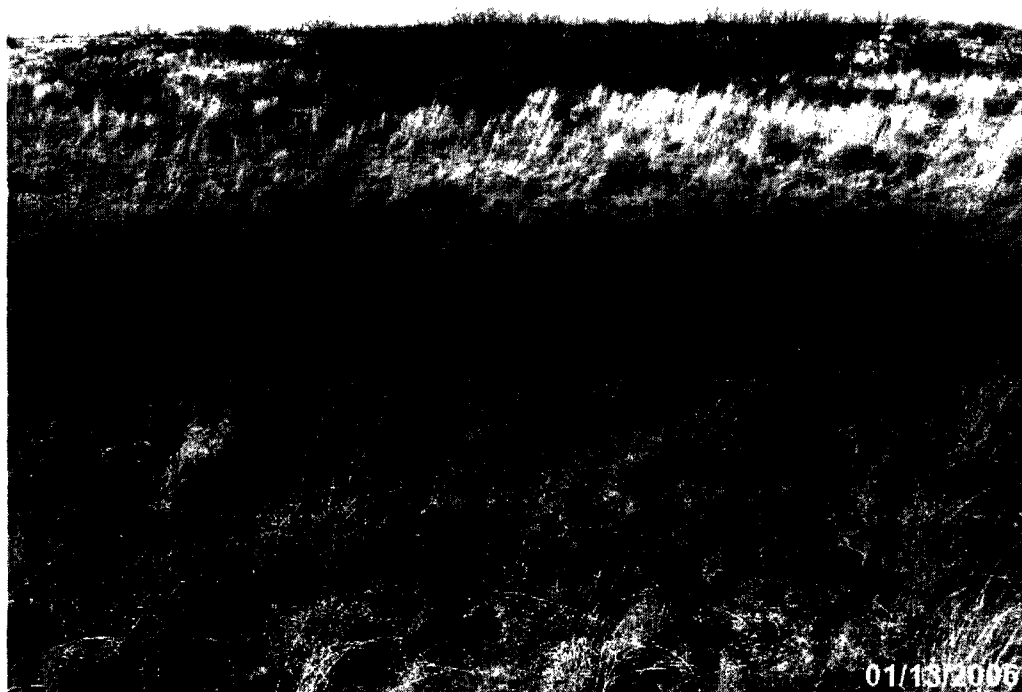


Photo #1 – Looking northerly across point of release and overspray area.

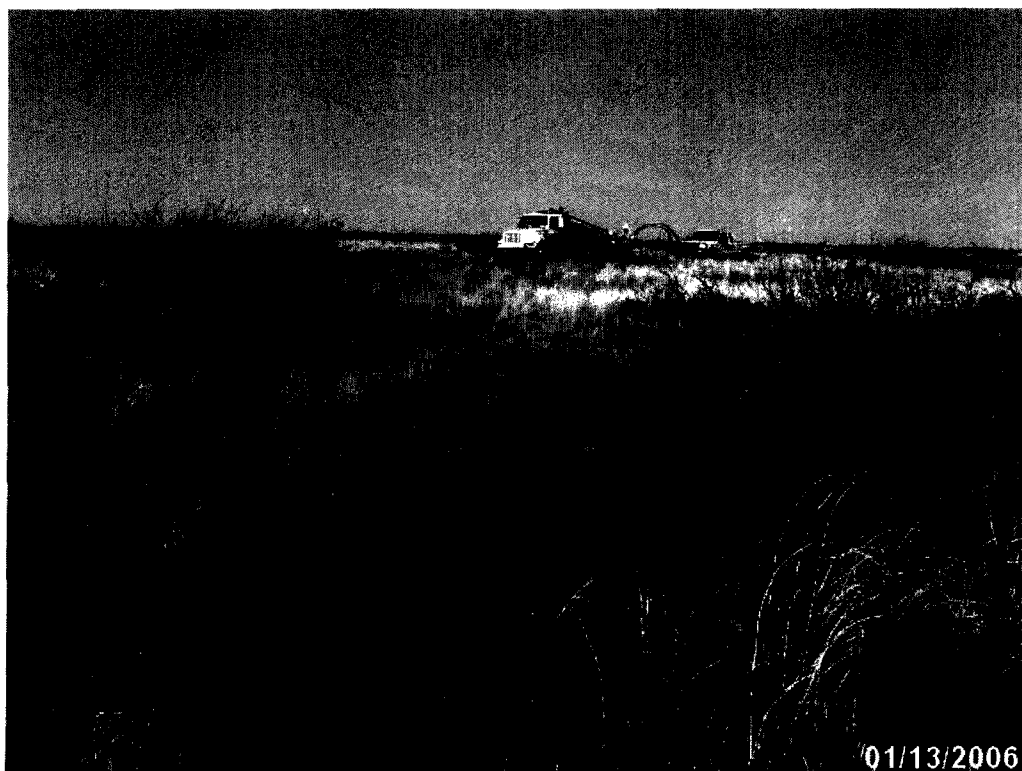


Photo #2 – Looking northeasterly along flowpath.

ATTACHMENT II

INFORMATIONAL

COPY OF INITIAL C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company ConocoPhillips Company	Contact John Abney
Address 4001 Penbrook Street Odessa, TX 79762	Telephone No. (505)391-3128
Facility Name Britt B Well #24	Facility Type Oil Well

Surface Owner BLM	Mineral Owner BLM	Lease No. 031621B
-------------------	-------------------	-------------------

API # 30 025 212230000

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	11	20S	37E	1980	South	660	West	Lea

Latitude 32 35.123N Longitude 103 13.763W

NATURE OF RELEASE

Type of Release Oil and Produced water	Volume of Release 38 bbls	Volume Recovered 20 bbls
Source of Release 2" steel flow line	Date and Hour of Occurrence 1/12/06	Date and Hour of Discovery 1/13/06 11am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Pat Caperton	
By Whom? John Abney	Date and Hour 1/13/2006 2:15 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA


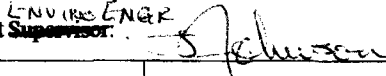
Describe Cause of Problem and Remedial Action Taken.*

A 2" steel flow line leaked possibly due to internal corrosion, a section of the pipe will be cut to determine the cause. The well was shut in until the joint of pipe could be replaced. The line was repaired, and tested and the line was walked out to locate any other signs of potential leaks, none were found.

Describe Area Affected and Cleanup Action Taken.*

The affected area is 3282 sq.ft. The area will be delineated to determine the appropriate clean up procedures.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOC acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: John Abney	Approved by District Supervisor: 	
Title: SHEaR Specialist	Approval Date: 6.27.07	Expiration Date: 8.27.07
E-mail Address: john.h.abney@conocophillips.com	Conditions of Approval:	
Date: 01/23/2006 Phone: (505)391-3128	Submitted Final C-141	
	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

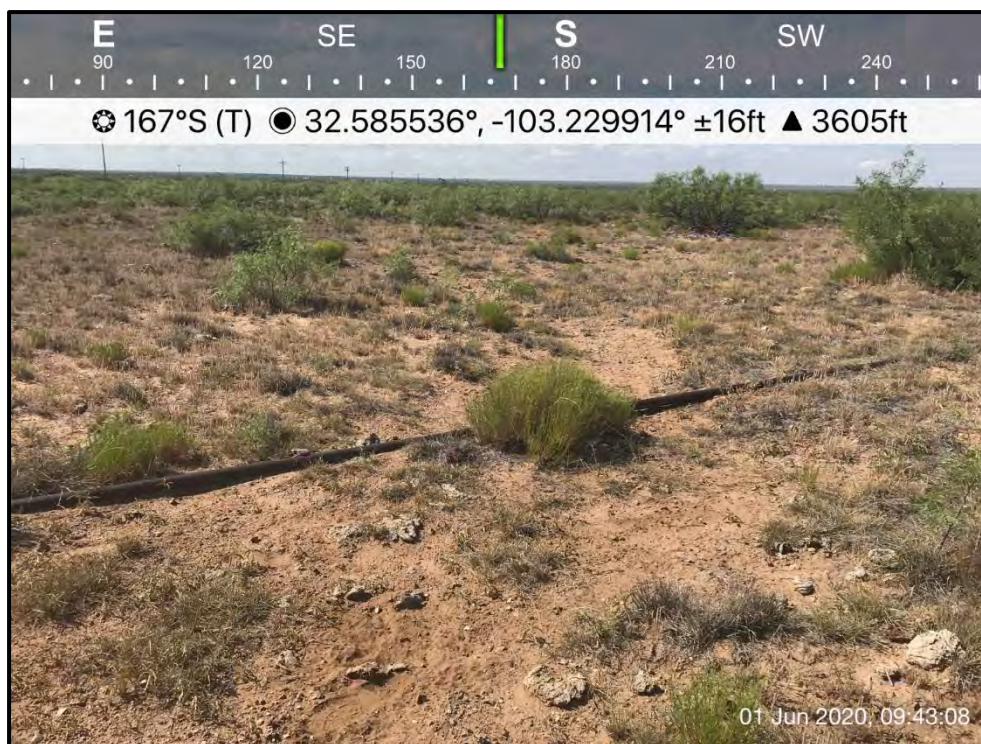
ConocoPhillips-217817
Incident # n PAC0603034879
application- PAC0603050368

W/DOC 01/23/2006

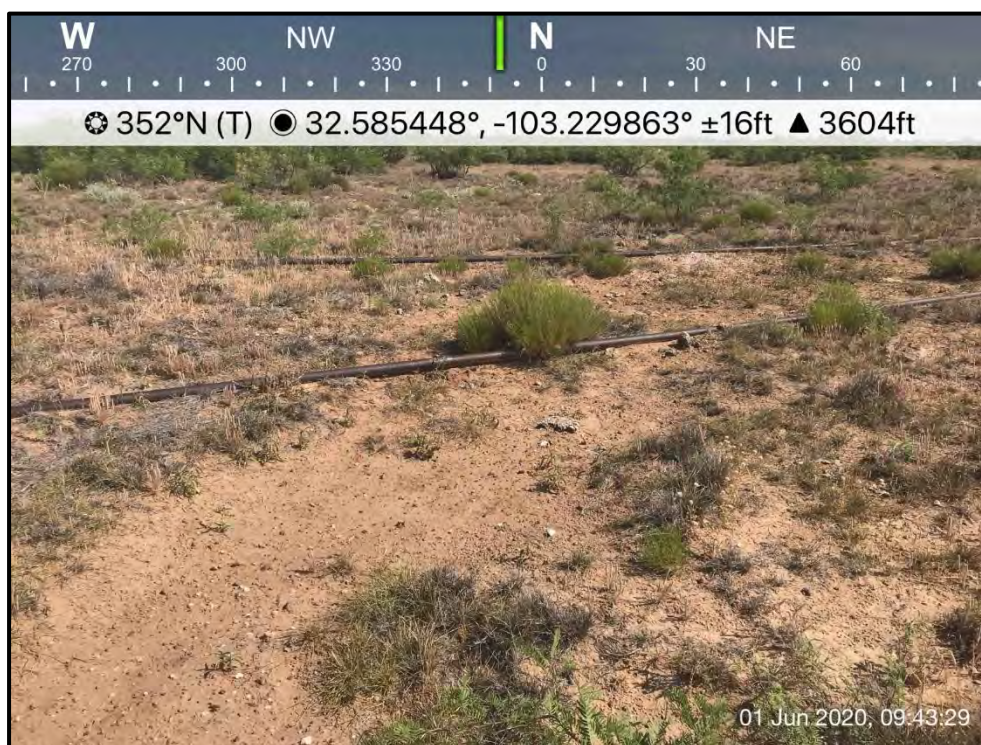
#368

APPENDIX D

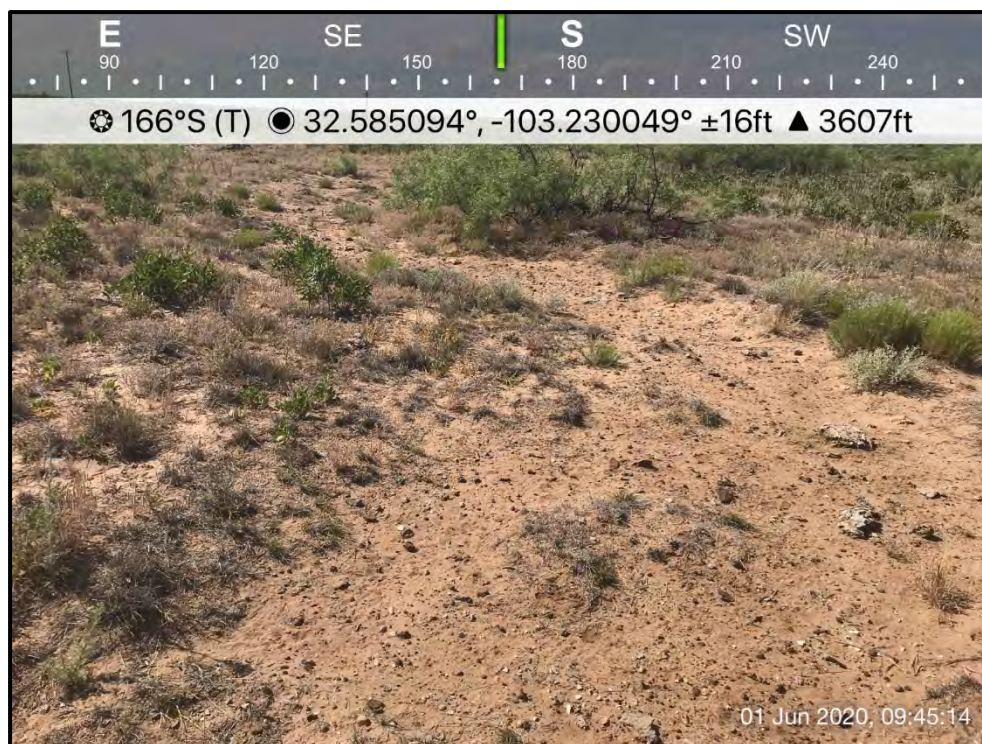
Photographic Documentation



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing south of flowline release area.	1
	SITE NAME	Britt B Well #24 Flowline Release	6/1/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing north of flowline release area.	2
	SITE NAME	Britt B Well #24 Flowline Release	6/1/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing south of flowline release area	3
	SITE NAME	Britt B Well #24 Flowline Release	6/1/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northwest of flowline release area	4
	SITE NAME	Britt B Well #24 Flowline Release	6/1/2020

APPENDIX E

Laboratory Analytical Reports



ANALYTICAL REPORT

November 11, 2020

ConocoPhillips - Tetra Tech

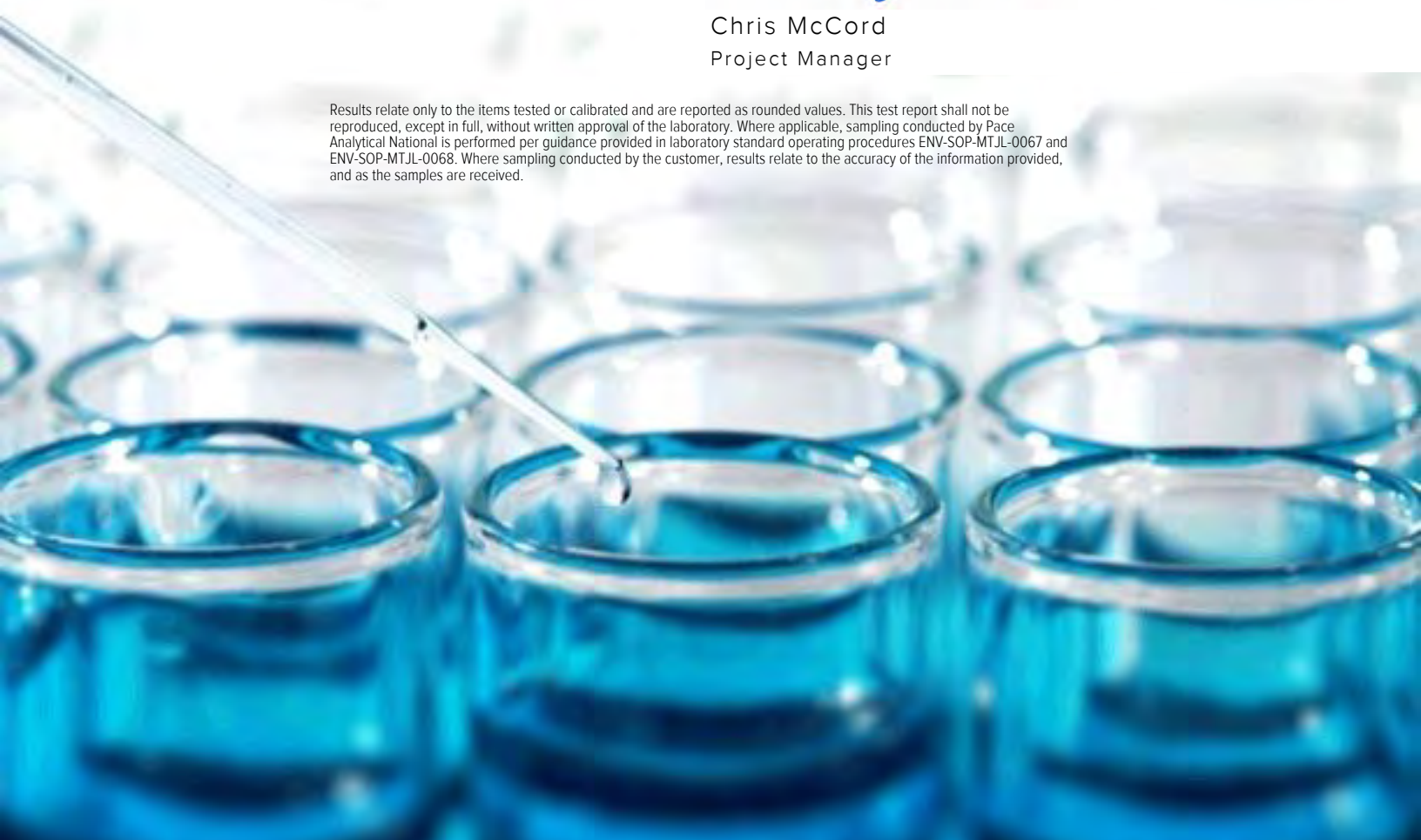
Sample Delivery Group: L1280669
Samples Received: 11/03/2020
Project Number: 212C-MD-02334
Description: Britt B Well #24 Flowline Release (1RP-1530)
Site: LEA COUNTY, NEW MEXICO
Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701



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.



Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	4
Cn: Case Narrative	10
Sr: Sample Results	11
BH-1 (0-1') L1280669-01	11
BH-1 (2-3') L1280669-02	12
BH-1 (4-5') L1280669-03	13
BH-1 (6-7') L1280669-04	14
BH-1 (9-10') L1280669-05	15
BH-1 (14-15') L1280669-06	16
BH-1 (19-20') L1280669-07	17
BH-1 (24-25') L1280669-08	18
BH-1 (29-30') L1280669-09	19
BH-2 (0-1') L1280669-10	20
BH-2 (2-3') L1280669-11	21
BH-2 (4-5') L1280669-12	22
BH-2 (6-7') L1280669-13	23
BH-2 (9-10') L1280669-14	24
BH-2 (14-15') L1280669-15	25
BH-2 (19-20') L1280669-16	26
BH-2 (24-25') L1280669-17	27
BH-2 (29-30') L1280669-18	28
BH-3 (0-1') L1280669-19	29
BH-3 (2-3') L1280669-20	30
BH-3 (4-5') L1280669-21	31
BH-3 (6-7') L1280669-22	32
BH-3 (9-10') L1280669-23	33
BH-3 (14-15') L1280669-24	34
BH-3 (19-20') L1280669-25	35
BH-3 (24-25') L1280669-26	36
BH-3 (29-30') L1280669-27	37
Qc: Quality Control Summary	38
Total Solids by Method 2540 G-2011	38
Wet Chemistry by Method 300.0	42
Volatile Organic Compounds (GC) by Method 8015D/GRO	44
Volatile Organic Compounds (GC/MS) by Method 8260B	47
Semi-Volatile Organic Compounds (GC) by Method 8015	51
Gl: Glossary of Terms	53
Al: Accreditations & Locations	54

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

Sc: Sample Chain of Custody

55

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

BH-1 (0-1') L1280669-01 Solid

				Collected by	Collected date/time	Received date/time
				Joe Tyler	10/28/20 12:00	11/03/20 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570609	1	11/04/20 11:15	11/04/20 11:31	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 08:00	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 00:52	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 14:06	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 15:26	TJD	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

BH-1 (2-3') L1280669-02 Solid

				Collected by	Collected date/time	Received date/time
				Joe Tyler	10/28/20 12:10	11/03/20 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570609	1	11/04/20 11:15	11/04/20 11:31	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 08:09	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	100	11/03/20 14:30	11/04/20 07:25	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573578	1	11/03/20 14:30	11/09/20 22:06	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	5	11/04/20 06:50	11/06/20 01:52	JDG	Mt. Juliet, TN

5 Sr

6 Qc

7 Gl

8 Al

BH-1 (4-5') L1280669-03 Solid

				Collected by	Collected date/time	Received date/time
				Joe Tyler	10/28/20 12:20	11/03/20 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570609	1	11/04/20 11:15	11/04/20 11:31	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 08:28	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 01:13	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 14:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 13:11	TJD	Mt. Juliet, TN

9 Sc

BH-1 (6-7') L1280669-04 Solid

				Collected by	Collected date/time	Received date/time
				Joe Tyler	10/28/20 12:30	11/03/20 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570609	1	11/04/20 11:15	11/04/20 11:31	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 08:57	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 01:34	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 14:44	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 13:55	TJD	Mt. Juliet, TN

BH-1 (9-10') L1280669-05 Solid

				Collected by	Collected date/time	Received date/time
				Joe Tyler	10/28/20 12:40	11/03/20 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570609	1	11/04/20 11:15	11/04/20 11:31	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 09:06	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 01:54	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 15:03	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 13:25	TJD	Mt. Juliet, TN

BH-1 (14-15') L1280669-06 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 12:50

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 09:35	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 02:15	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 15:22	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 14:09	TJD	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-1 (19-20') L1280669-07 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 13:00

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 09:44	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 02:36	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 15:42	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 15:07	TJD	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-1 (24-25') L1280669-08 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 13:20

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 09:54	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 02:56	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 16:01	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 14:22	TJD	Mt. Juliet, TN

⁹ Sc

BH-1 (29-30') L1280669-09 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 13:40

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 10:03	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 03:17	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 16:20	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	1	11/04/20 06:50	11/05/20 14:41	TJD	Mt. Juliet, TN

BH-2 (0-1') L1280669-10 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 14:00

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 10:13	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 03:38	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 16:39	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	25	11/04/20 06:50	11/06/20 02:06	JDG	Mt. Juliet, TN

BH-2 (2-3') L1280669-11 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 14:10

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 10:22	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570479	1	11/03/20 14:30	11/04/20 03:58	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 16:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	25	11/04/20 06:50	11/06/20 02:19	JDG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570612	5	11/04/20 06:50	11/05/20 16:20	TJD	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

BH-2 (4-5') L1280669-12 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 14:20

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 10:32	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 15:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 17:18	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	5	11/04/20 16:33	11/06/20 10:22	JDG	Mt. Juliet, TN

BH-2 (6-7') L1280669-13 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 14:30

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 10:42	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 15:24	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 17:37	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 08:40	JDG	Mt. Juliet, TN

BH-2 (9-10') L1280669-14 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 14:40

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 10:51	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 15:47	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 17:56	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 07:49	JDG	Mt. Juliet, TN

BH-2 (14-15') L1280669-15 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 14:50

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570630	1	11/04/20 10:56	11/04/20 11:04	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 11:01	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 16:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 18:16	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/05/20 10:40	TJD	Mt. Juliet, TN

BH-2 (19-20') L1280669-16 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 15:00

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 11:29	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 16:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 18:35	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/05/20 10:53	TJD	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-2 (24-25') L1280669-17 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 15:20

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 11:39	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 16:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 18:54	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/05/20 11:57	TJD	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-2 (29-30') L1280669-18 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 15:40

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 11:48	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 17:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 19:13	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/05/20 12:10	TJD	Mt. Juliet, TN

⁹ Sc

BH-3 (0-1') L1280669-19 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 16:00

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 11:58	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 17:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573107	1	11/03/20 14:30	11/08/20 19:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 09:31	JDG	Mt. Juliet, TN

BH-3 (2-3') L1280669-20 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 16:10

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570288	1	11/03/20 23:08	11/04/20 12:07	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 18:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573109	1	11/03/20 14:30	11/08/20 23:22	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 09:06	JDG	Mt. Juliet, TN

BH-3 (4-5') L1280669-21 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 16:20

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570289	1	11/04/20 10:20	11/04/20 14:39	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 18:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573109	1	11/03/20 14:30	11/08/20 23:41	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 08:27	JDG	Mt. Juliet, TN

1Cp

2Tc

3Ss

4Cn

BH-3 (6-7') L1280669-22 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 16:30

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570289	1	11/04/20 10:20	11/04/20 14:58	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570528	1	11/03/20 14:30	11/04/20 19:04	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573109	1	11/03/20 14:30	11/09/20 00:01	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 08:02	JDG	Mt. Juliet, TN

5Sr

6Qc

7Gl

8Al

BH-3 (9-10') L1280669-23 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 16:40

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570289	1	11/04/20 10:20	11/04/20 15:27	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570529	1	11/03/20 14:30	11/04/20 07:53	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573109	1	11/03/20 14:30	11/09/20 00:20	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 08:15	JDG	Mt. Juliet, TN

9Sc

BH-3 (14-15') L1280669-24 Solid

Collected by
Joe Tyler

Collected date/time
10/28/20 16:50

Received date/time
11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570289	1	11/04/20 10:20	11/04/20 15:37	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570529	1	11/03/20 14:30	11/04/20 09:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573109	1	11/03/20 14:30	11/09/20 00:39	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/06/20 09:18	JDG	Mt. Juliet, TN

Collected by
Joe Tyler

Collected date/time
10/28/20 17:00

Received date/time
11/03/20 08:00

BH-3 (19-20') L1280669-25 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570632	1	11/04/20 10:27	11/04/20 10:52	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570289	1	11/04/20 10:20	11/04/20 15:46	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570529	1	11/03/20 14:30	11/04/20 09:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573109	1	11/03/20 14:30	11/09/20 00:58	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/05/20 12:36	TJD	Mt. Juliet, TN

BH-3 (24-25') L1280669-26 Solid

Collected by Joe Tyler
Collected date/time 10/28/20 17:20
Received date/time 11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570633	1	11/04/20 21:56	11/04/20 21:56	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570289	1	11/04/20 10:20	11/04/20 16:15	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570529	1	11/03/20 14:30	11/04/20 09:45	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1573109	1	11/03/20 14:30	11/09/20 01:17	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/05/20 11:06	TJD	Mt. Juliet, TN

1Cp

2Tc

3Ss

4Cn

BH-3 (29-30') L1280669-27 Solid

Collected by Joe Tyler
Collected date/time 10/28/20 17:40
Received date/time 11/03/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1570633	1	11/04/20 21:56	11/04/20 21:56	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1570289	1	11/04/20 10:20	11/04/20 16:24	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1570529	1	11/03/20 14:30	11/04/20 10:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1574230	1	11/03/20 14:30	11/11/20 15:42	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1570695	1	11/04/20 16:33	11/05/20 11:19	TJD	Mt. Juliet, TN

5Sr

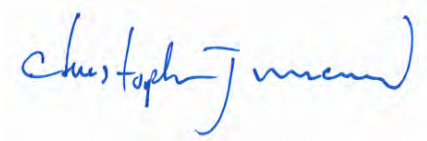
6Qc

7Gl

8Al

9Sc

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

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

Collected date/time: 10/28/20 12:00

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.3		1	11/04/2020 11:31	WG1570609

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	47.2		9.55	20.8	1	11/04/2020 08:00	WG1570288

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	0.0239	B J	0.0225	0.104	1	11/04/2020 00:52	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120		11/04/2020 00:52	WG1570479

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000503	0.00108	1	11/08/2020 14:06	WG1573107
Toluene	U		0.00140	0.00539	1	11/08/2020 14:06	WG1573107
Ethylbenzene	U		0.000794	0.00269	1	11/08/2020 14:06	WG1573107
Total Xylenes	U		0.000948	0.00700	1	11/08/2020 14:06	WG1573107
(S) Toluene-d8	109			75.0-131		11/08/2020 14:06	WG1573107
(S) 4-Bromofluorobenzene	101			67.0-138		11/08/2020 14:06	WG1573107
(S) 1,2-Dichloroethane-d4	102			70.0-130		11/08/2020 14:06	WG1573107

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	43.9		1.67	4.15	1	11/05/2020 15:26	WG1570612
C28-C40 Oil Range	106		0.285	4.15	1	11/05/2020 15:26	WG1570612
(S) o-Terphenyl	86.8			18.0-148		11/05/2020 15:26	WG1570612

Collected date/time: 10/28/20 12:10

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.3		1	11/04/2020 11:31	WG1570609

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	68.5		9.56	20.8	1	11/04/2020 08:09	WG1570288

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	13.7	<u>B</u>	2.34	10.8	100	11/04/2020 07:25	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120		11/04/2020 07:25	WG1570479

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000503	0.00108	1	11/09/2020 22:06	WG1573578
Toluene	0.0200		0.00140	0.00539	1	11/09/2020 22:06	WG1573578
Ethylbenzene	0.00199	<u>J</u>	0.000794	0.00269	1	11/09/2020 22:06	WG1573578
Total Xylenes	0.00707		0.000948	0.00700	1	11/09/2020 22:06	WG1573578
(S) Toluene-d8	99.7			75.0-131		11/09/2020 22:06	WG1573578
(S) 4-Bromofluorobenzene	110			67.0-138		11/09/2020 22:06	WG1573578
(S) 1,2-Dichloroethane-d4	109			70.0-130		11/09/2020 22:06	WG1573578

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	653		8.36	20.8	5	11/06/2020 01:52	WG1570612
C28-C40 Oil Range	513		1.42	20.8	5	11/06/2020 01:52	WG1570612
(S) o-Terphenyl	116			18.0-148		11/06/2020 01:52	WG1570612

Collected date/time: 10/28/20 12:20

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.1		1	11/04/2020 11:31	WG1570609

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	36.6		9.58	20.8	1	11/04/2020 08:28	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0315	B J	0.0226	0.104	1	11/04/2020 01:13	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	94.7			77.0-120		11/04/2020 01:13	WG1570479

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000505	0.00108	1	11/08/2020 14:25	WG1573107
Toluene	U		0.00141	0.00541	1	11/08/2020 14:25	WG1573107
Ethylbenzene	U		0.000798	0.00271	1	11/08/2020 14:25	WG1573107
Total Xylenes	U		0.000952	0.00703	1	11/08/2020 14:25	WG1573107
(S) Toluene-d8	104			75.0-131		11/08/2020 14:25	WG1573107
(S) 4-Bromofluorobenzene	95.1			67.0-138		11/08/2020 14:25	WG1573107
(S) 1,2-Dichloroethane-d4	107			70.0-130		11/08/2020 14:25	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5.42		1.68	4.16	1	11/05/2020 13:11	WG1570612
C28-C40 Oil Range	7.54		0.285	4.16	1	11/05/2020 13:11	WG1570612
(S) o-Terphenyl	77.8			18.0-148		11/05/2020 13:11	WG1570612

Collected date/time: 10/28/20 12:30

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.6		1	11/04/2020 11:31	WG1570609

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	25.0		9.53	20.7	1	11/04/2020 08:57	WG1570288

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	0.0275	B J	0.0225	0.104	1	11/04/2020 01:34	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	95.0			77.0-120		11/04/2020 01:34	WG1570479

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000500	0.00107	1	11/08/2020 14:44	WG1573107
Toluene	U		0.00139	0.00536	1	11/08/2020 14:44	WG1573107
Ethylbenzene	U		0.000789	0.00268	1	11/08/2020 14:44	WG1573107
Total Xylenes	U		0.000943	0.00696	1	11/08/2020 14:44	WG1573107
(S) Toluene-d8	110			75.0-131		11/08/2020 14:44	WG1573107
(S) 4-Bromofluorobenzene	100			67.0-138		11/08/2020 14:44	WG1573107
(S) 1,2-Dichloroethane-d4	105			70.0-130		11/08/2020 14:44	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.94	J	1.67	4.14	1	11/05/2020 13:55	WG1570612
C28-C40 Oil Range	1.94	J	0.284	4.14	1	11/05/2020 13:55	WG1570612
(S) o-Terphenyl	74.4			18.0-148		11/05/2020 13:55	WG1570612

Collected date/time: 10/28/20 12:40

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.7		1	11/04/2020 11:31	WG1570609

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	28.8		9.42	20.5	1	11/04/2020 09:06	WG1570288

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	0.0250	B J	0.0222	0.102	1	11/04/2020 01:54	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	94.5			77.0-120		11/04/2020 01:54	WG1570479

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		0.000489	0.00105	1	11/08/2020 15:03	WG1573107
Toluene	U		0.00136	0.00524	1	11/08/2020 15:03	WG1573107
Ethylbenzene	U		0.000772	0.00262	1	11/08/2020 15:03	WG1573107
Total Xylenes	U		0.000922	0.00681	1	11/08/2020 15:03	WG1573107
(S) Toluene-d8	111			75.0-131		11/08/2020 15:03	WG1573107
(S) 4-Bromofluorobenzene	96.1			67.0-138		11/08/2020 15:03	WG1573107
(S) 1,2-Dichloroethane-d4	101			70.0-130		11/08/2020 15:03	WG1573107

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	4.09	1	11/05/2020 13:25	WG1570612
C28-C40 Oil Range	2.41	J	0.280	4.09	1	11/05/2020 13:25	WG1570612
(S) o-Terphenyl	78.2			18.0-148		11/05/2020 13:25	WG1570612

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

Collected date/time: 10/28/20 12:50

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.1		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	U		9.57	20.8	1	11/04/2020 09:35	WG1570288

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0279	B J	0.0226	0.104	1	11/04/2020 02:15	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	94.5			77.0-120		11/04/2020 02:15	WG1570479

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000505	0.00108	1	11/08/2020 15:22	WG1573107
Toluene	U		0.00141	0.00541	1	11/08/2020 15:22	WG1573107
Ethylbenzene	U		0.000797	0.00270	1	11/08/2020 15:22	WG1573107
Total Xylenes	U		0.000952	0.00703	1	11/08/2020 15:22	WG1573107
(S) Toluene-d8	110			75.0-131		11/08/2020 15:22	WG1573107
(S) 4-Bromofluorobenzene	95.3			67.0-138		11/08/2020 15:22	WG1573107
(S) 1,2-Dichloroethane-d4	107			70.0-130		11/08/2020 15:22	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.68	4.16	1	11/05/2020 14:09	WG1570612
C28-C40 Oil Range	1.87	J	0.285	4.16	1	11/05/2020 14:09	WG1570612
(S) o-Terphenyl	79.8			18.0-148		11/05/2020 14:09	WG1570612

Collected date/time: 10/28/20 13:00

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	77.8		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		11.8	25.7	1	11/04/2020 09:44	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0337	B J	0.0279	0.128	1	11/04/2020 02:36	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		11/04/2020 02:36	WG1570479

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000733	0.00157	1	11/08/2020 15:42	WG1573107
Toluene	U		0.00204	0.00785	1	11/08/2020 15:42	WG1573107
Ethylbenzene	U		0.00116	0.00392	1	11/08/2020 15:42	WG1573107
Total Xylenes	U		0.00138	0.0102	1	11/08/2020 15:42	WG1573107
(S) Toluene-d8	107			75.0-131		11/08/2020 15:42	WG1573107
(S) 4-Bromofluorobenzene	95.8			67.0-138		11/08/2020 15:42	WG1573107
(S) 1,2-Dichloroethane-d4	98.4			70.0-130		11/08/2020 15:42	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	14.6		2.07	5.14	1	11/05/2020 15:07	WG1570612
C28-C40 Oil Range	71.2		0.352	5.14	1	11/05/2020 15:07	WG1570612
(S) o-Terphenyl	81.1			18.0-148		11/05/2020 15:07	WG1570612

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.3		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	18.2	J	11.2	24.3	1	11/04/2020 09:54	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0299	B J	0.0264	0.122	1	11/04/2020 02:56	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	93.9			77.0-120		11/04/2020 02:56	WG1570479

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000669	0.00143	1	11/08/2020 16:01	WG1573107
Toluene	U		0.00186	0.00716	1	11/08/2020 16:01	WG1573107
Ethylbenzene	U		0.00106	0.00358	1	11/08/2020 16:01	WG1573107
Total Xylenes	U		0.00126	0.00931	1	11/08/2020 16:01	WG1573107
(S) Toluene-d8	110			75.0-131		11/08/2020 16:01	WG1573107
(S) 4-Bromofluorobenzene	95.9			67.0-138		11/08/2020 16:01	WG1573107
(S) 1,2-Dichloroethane-d4	101			70.0-130		11/08/2020 16:01	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.96	4.86	1	11/05/2020 14:22	WG1570612
C28-C40 Oil Range	1.06	J	0.333	4.86	1	11/05/2020 14:22	WG1570612
(S) o-Terphenyl	70.0			18.0-148		11/05/2020 14:22	WG1570612

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.7		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	19.9	J	10.6	23.1	1	11/04/2020 10:03	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0290	B J	0.0250	0.115	1	11/04/2020 03:17	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120		11/04/2020 03:17	WG1570479

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000611	0.00131	1	11/08/2020 16:20	WG1573107
Toluene	U		0.00170	0.00654	1	11/08/2020 16:20	WG1573107
Ethylbenzene	U		0.000964	0.00327	1	11/08/2020 16:20	WG1573107
Total Xylenes	U		0.00115	0.00850	1	11/08/2020 16:20	WG1573107
(S) Toluene-d8	107			75.0-131		11/08/2020 16:20	WG1573107
(S) 4-Bromofluorobenzene	96.3			67.0-138		11/08/2020 16:20	WG1573107
(S) 1,2-Dichloroethane-d4	106			70.0-130		11/08/2020 16:20	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.86	4.61	1	11/05/2020 14:41	WG1570612
C28-C40 Oil Range	U		0.316	4.61	1	11/05/2020 14:41	WG1570612
(S) o-Terphenyl	64.9			18.0-148		11/05/2020 14:41	WG1570612

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

Collected date/time: 10/28/20 14:00

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.0		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	428		9.69	21.1	1	11/04/2020 10:13	WG1570288

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	0.0275	B J	0.0228	0.105	1	11/04/2020 03:38	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		11/04/2020 03:38	WG1570479

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		0.000517	0.00111	1	11/08/2020 16:39	WG1573107
Toluene	U		0.00144	0.00553	1	11/08/2020 16:39	WG1573107
Ethylbenzene	U		0.000815	0.00277	1	11/08/2020 16:39	WG1573107
Total Xylenes	U		0.000973	0.00719	1	11/08/2020 16:39	WG1573107
(S) Toluene-d8	108			75.0-131		11/08/2020 16:39	WG1573107
(S) 4-Bromofluorobenzene	98.7			67.0-138		11/08/2020 16:39	WG1573107
(S) 1,2-Dichloroethane-d4	112			70.0-130		11/08/2020 16:39	WG1573107

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	2100		42.4	105	25	11/06/2020 02:06	WG1570612
C28-C40 Oil Range	3180		7.21	105	25	11/06/2020 02:06	WG1570612
(S) o-Terphenyl	0.000	J7		18.0-148		11/06/2020 02:06	WG1570612

Collected date/time: 10/28/20 14:10

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	11/04/2020 11:04	WG1570630

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	305		9.65	21.0	1	11/04/2020 10:22	WG1570288

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	0.0298	B J	0.0228	0.105	1	11/04/2020 03:58	WG1570479
(S) a,a,a-Trifluorotoluene(FID)	93.4			77.0-120		11/04/2020 03:58	WG1570479

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	11/08/2020 16:59	WG1573107
Toluene	U		0.00143	0.00549	1	11/08/2020 16:59	WG1573107
Ethylbenzene	U		0.000810	0.00275	1	11/08/2020 16:59	WG1573107
Total Xylenes	U		0.000967	0.00714	1	11/08/2020 16:59	WG1573107
(S) Toluene-d8	108			75.0-131		11/08/2020 16:59	WG1573107
(S) 4-Bromofluorobenzene	102			67.0-138		11/08/2020 16:59	WG1573107
(S) 1,2-Dichloroethane-d4	112			70.0-130		11/08/2020 16:59	WG1573107

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	1300		8.45	21.0	5	11/05/2020 16:20	WG1570612
C28-C40 Oil Range	2250		7.19	105	25	11/06/2020 02:19	WG1570612
(S) o-Terphenyl	0.000	J7		18.0-148		11/06/2020 02:19	WG1570612
(S) o-Terphenyl	167	J1		18.0-148		11/05/2020 16:20	WG1570612

Collected date/time: 10/28/20 14:20

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.5		1	11/04/2020 11:04	WG1570630

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	213		9.63	20.9	1	11/04/2020 10:32	WG1570288

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	0.155	<u>B</u>	0.0227	0.105	1	11/04/2020 15:01	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		11/04/2020 15:01	WG1570528

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		0.000511	0.00109	1	11/08/2020 17:18	WG1573107
Toluene	U		0.00142	0.00547	1	11/08/2020 17:18	WG1573107
Ethylbenzene	0.000820	<u>J</u>	0.000806	0.00273	1	11/08/2020 17:18	WG1573107
Total Xylenes	0.000984	<u>J</u>	0.000962	0.00711	1	11/08/2020 17:18	WG1573107
(S) Toluene-d8	104			75.0-131		11/08/2020 17:18	WG1573107
(S) 4-Bromofluorobenzene	98.7			67.0-138		11/08/2020 17:18	WG1573107
(S) 1,2-Dichloroethane-d4	108			70.0-130		11/08/2020 17:18	WG1573107

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	284		8.43	20.9	5	11/06/2020 10:22	WG1570695
C28-C40 Oil Range	219		1.43	20.9	5	11/06/2020 10:22	WG1570695
(S) o-Terphenyl	64.9			18.0-148		11/06/2020 10:22	WG1570695

Collected date/time: 10/28/20 14:30

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.0		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	63.6		9.69	21.1	1	11/04/2020 10:42	WG1570288

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0228	0.105	1	11/04/2020 15:24	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	98.6			77.0-120		11/04/2020 15:24	WG1570528

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000516	0.00111	1	11/08/2020 17:37	WG1573107
Toluene	U		0.00144	0.00553	1	11/08/2020 17:37	WG1573107
Ethylbenzene	U		0.000815	0.00276	1	11/08/2020 17:37	WG1573107
Total Xylenes	U		0.000973	0.00719	1	11/08/2020 17:37	WG1573107
(S) Toluene-d8	110			75.0-131		11/08/2020 17:37	WG1573107
(S) 4-Bromofluorobenzene	97.8			67.0-138		11/08/2020 17:37	WG1573107
(S) 1,2-Dichloroethane-d4	103			70.0-130		11/08/2020 17:37	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	61.3		1.70	4.21	1	11/06/2020 08:40	WG1570695
C28-C40 Oil Range	98.5		0.288	4.21	1	11/06/2020 08:40	WG1570695
(S) o-Terphenyl	50.8			18.0-148		11/06/2020 08:40	WG1570695

Collected date/time: 10/28/20 14:40

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.5		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	13.8	J	9.74	21.2	1	11/04/2020 10:51	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	11/04/2020 15:47	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	98.4			77.0-120		11/04/2020 15:47	WG1570528

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000522	0.00112	1	11/08/2020 17:56	WG1573107
Toluene	U		0.00145	0.00559	1	11/08/2020 17:56	WG1573107
Ethylbenzene	U		0.000824	0.00279	1	11/08/2020 17:56	WG1573107
Total Xylenes	U		0.000983	0.00726	1	11/08/2020 17:56	WG1573107
(S) Toluene-d8	108			75.0-131		11/08/2020 17:56	WG1573107
(S) 4-Bromofluorobenzene	98.8			67.0-138		11/08/2020 17:56	WG1573107
(S) 1,2-Dichloroethane-d4	103			70.0-130		11/08/2020 17:56	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.78	J	1.70	4.24	1	11/06/2020 07:49	WG1570695
C28-C40 Oil Range	4.54		0.290	4.24	1	11/06/2020 07:49	WG1570695
(S) o-Terphenyl	50.0			18.0-148		11/06/2020 07:49	WG1570695

Collected date/time: 10/28/20 14:50

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.5		1	11/04/2020 11:04	WG1570630

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.54	20.7	1	11/04/2020 11:01	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	11/04/2020 16:10	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-120		11/04/2020 16:10	WG1570528

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000501	0.00107	1	11/08/2020 18:16	WG1573107
Toluene	U		0.00140	0.00537	1	11/08/2020 18:16	WG1573107
Ethylbenzene	U		0.000791	0.00268	1	11/08/2020 18:16	WG1573107
Total Xylenes	U		0.000945	0.00698	1	11/08/2020 18:16	WG1573107
(S) Toluene-d8	109			75.0-131		11/08/2020 18:16	WG1573107
(S) 4-Bromofluorobenzene	93.9			67.0-138		11/08/2020 18:16	WG1573107
(S) 1,2-Dichloroethane-d4	109			70.0-130		11/08/2020 18:16	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.67	4.15	1	11/05/2020 10:40	WG1570695
C28-C40 Oil Range	0.299	J	0.284	4.15	1	11/05/2020 10:40	WG1570695
(S) o-Terphenyl	66.0			18.0-148		11/05/2020 10:40	WG1570695

Collected date/time: 10/28/20 15:00

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.9		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	211		11.1	24.1	1	11/04/2020 11:29	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0262	0.121	1	11/04/2020 16:33	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	97.4			77.0-120		11/04/2020 16:33	WG1570528

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000659	0.00141	1	11/08/2020 18:35	WG1573107
Toluene	U		0.00184	0.00706	1	11/08/2020 18:35	WG1573107
Ethylbenzene	U		0.00104	0.00353	1	11/08/2020 18:35	WG1573107
Total Xylenes	U		0.00124	0.00918	1	11/08/2020 18:35	WG1573107
(S) Toluene-d8	109			75.0-131		11/08/2020 18:35	WG1573107
(S) 4-Bromofluorobenzene	98.0			67.0-138		11/08/2020 18:35	WG1573107
(S) 1,2-Dichloroethane-d4	107			70.0-130		11/08/2020 18:35	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.09	J	1.94	4.82	1	11/05/2020 10:53	WG1570695
C28-C40 Oil Range	4.34	J	0.330	4.82	1	11/05/2020 10:53	WG1570695
(S) o-Terphenyl	44.1			18.0-148		11/05/2020 10:53	WG1570695

Collected date/time: 10/28/20 15:20

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.1		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	85.6		10.6	23.0	1	11/04/2020 11:39	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0249	0.115	1	11/04/2020 16:56	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	97.9			77.0-120		11/04/2020 16:56	WG1570528

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000606	0.00130	1	11/08/2020 18:54	WG1573107
Toluene	U		0.00169	0.00649	1	11/08/2020 18:54	WG1573107
Ethylbenzene	U		0.000956	0.00324	1	11/08/2020 18:54	WG1573107
Total Xylenes	U		0.00114	0.00843	1	11/08/2020 18:54	WG1573107
(S) Toluene-d8	105			75.0-131		11/08/2020 18:54	WG1573107
(S) 4-Bromofluorobenzene	98.1			67.0-138		11/08/2020 18:54	WG1573107
(S) 1,2-Dichloroethane-d4	105			70.0-130		11/08/2020 18:54	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.32	J	1.85	4.59	1	11/05/2020 11:57	WG1570695
C28-C40 Oil Range	4.35	J	0.315	4.59	1	11/05/2020 11:57	WG1570695
(S) o-Terphenyl	47.9			18.0-148		11/05/2020 11:57	WG1570695

Collected date/time: 10/28/20 15:40

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.5		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	77.4		10.3	22.3	1	11/04/2020 11:48	WG1570288

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0242	0.112	1	11/04/2020 17:31	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	97.1			77.0-120		11/04/2020 17:31	WG1570528

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000576	0.00123	1	11/08/2020 19:13	WG1573107
Toluene	U		0.00160	0.00617	1	11/08/2020 19:13	WG1573107
Ethylbenzene	U		0.000910	0.00309	1	11/08/2020 19:13	WG1573107
Total Xylenes	U		0.00109	0.00802	1	11/08/2020 19:13	WG1573107
(S) Toluene-d8	104			75.0-131		11/08/2020 19:13	WG1573107
(S) 4-Bromofluorobenzene	97.0			67.0-138		11/08/2020 19:13	WG1573107
(S) 1,2-Dichloroethane-d4	99.7			70.0-130		11/08/2020 19:13	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1.89	J	1.80	4.47	1	11/05/2020 12:10	WG1570695
C28-C40 Oil Range	2.49	J	0.306	4.47	1	11/05/2020 12:10	WG1570695
(S) o-Terphenyl	43.3			18.0-148		11/05/2020 12:10	WG1570695

Collected date/time: 10/28/20 16:00

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.9		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	23.8		9.69	21.1	1	11/04/2020 11:58	WG1570288

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	11/04/2020 17:54	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		11/04/2020 17:54	WG1570528

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000517	0.00111	1	11/08/2020 19:32	WG1573107
Toluene	U		0.00144	0.00554	1	11/08/2020 19:32	WG1573107
Ethylbenzene	U		0.000816	0.00277	1	11/08/2020 19:32	WG1573107
Total Xylenes	U		0.000975	0.00720	1	11/08/2020 19:32	WG1573107
(S) Toluene-d8	107			75.0-131		11/08/2020 19:32	WG1573107
(S) 4-Bromofluorobenzene	98.6			67.0-138		11/08/2020 19:32	WG1573107
(S) 1,2-Dichloroethane-d4	99.6			70.0-130		11/08/2020 19:32	WG1573107

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	19.8		1.70	4.22	1	11/06/2020 09:31	WG1570695
C28-C40 Oil Range	44.9		0.289	4.22	1	11/06/2020 09:31	WG1570695
(S) o-Terphenyl	38.0			18.0-148		11/06/2020 09:31	WG1570695

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.2		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	34.1		9.56	20.8	1	11/04/2020 12:07	WG1570288

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	11/04/2020 18:17	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	97.5			77.0-120		11/04/2020 18:17	WG1570528

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000504	0.00108	1	11/08/2020 23:22	WG1573109
Toluene	U		0.00140	0.00540	1	11/08/2020 23:22	WG1573109
Ethylbenzene	U		0.000795	0.00270	1	11/08/2020 23:22	WG1573109
Total Xylenes	U		0.000950	0.00701	1	11/08/2020 23:22	WG1573109
(S) Toluene-d8	109			75.0-131		11/08/2020 23:22	WG1573109
(S) 4-Bromofluorobenzene	100			67.0-138		11/08/2020 23:22	WG1573109
(S) 1,2-Dichloroethane-d4	99.7			70.0-130		11/08/2020 23:22	WG1573109

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	38.5		1.67	4.16	1	11/06/2020 09:06	WG1570695
C28-C40 Oil Range	80.9		0.285	4.16	1	11/06/2020 09:06	WG1570695
(S) o-Terphenyl	40.1			18.0-148		11/06/2020 09:06	WG1570695

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

Collected date/time: 10/28/20 16:20

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.5		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	35.3	P1	9.74	21.2	1	11/04/2020 14:39	WG1570289

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	11/04/2020 18:41	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	96.9			77.0-120		11/04/2020 18:41	WG1570528

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000522	0.00112	1	11/08/2020 23:41	WG1573109
Toluene	U		0.00145	0.00559	1	11/08/2020 23:41	WG1573109
Ethylbenzene	U		0.000824	0.00279	1	11/08/2020 23:41	WG1573109
Total Xylenes	U		0.000983	0.00726	1	11/08/2020 23:41	WG1573109
(S) Toluene-d8	108			75.0-131		11/08/2020 23:41	WG1573109
(S) 4-Bromofluorobenzene	96.5			67.0-138		11/08/2020 23:41	WG1573109
(S) 1,2-Dichloroethane-d4	106			70.0-130		11/08/2020 23:41	WG1573109

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	8.69		1.70	4.23	1	11/06/2020 08:27	WG1570695
C28-C40 Oil Range	16.7		0.290	4.23	1	11/06/2020 08:27	WG1570695
(S) o-Terphenyl	46.7			18.0-148		11/06/2020 08:27	WG1570695

Collected date/time: 10/28/20 16:30

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.2		1	11/04/2020 10:52	WG1570632

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	384		9.77	21.2	1	11/04/2020 14:58	WG1570289

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	11/04/2020 19:04	WG1570528
(S) a,a,a-Trifluorotoluene(FID)	97.5			77.0-120		11/04/2020 19:04	WG1570528

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		0.000524	0.00112	1	11/09/2020 00:01	WG1573109
Toluene	U		0.00146	0.00561	1	11/09/2020 00:01	WG1573109
Ethylbenzene	U		0.000828	0.00281	1	11/09/2020 00:01	WG1573109
Total Xylenes	U		0.000988	0.00730	1	11/09/2020 00:01	WG1573109
(S) Toluene-d8	108			75.0-131		11/09/2020 00:01	WG1573109
(S) 4-Bromofluorobenzene	97.8			67.0-138		11/09/2020 00:01	WG1573109
(S) 1,2-Dichloroethane-d4	99.4			70.0-130		11/09/2020 00:01	WG1573109

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.60		1.71	4.25	1	11/06/2020 08:02	WG1570695
C28-C40 Oil Range	8.23		0.291	4.25	1	11/06/2020 08:02	WG1570695
(S) o-Terphenyl	48.5			18.0-148		11/06/2020 08:02	WG1570695

Collected date/time: 10/28/20 16:40

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.9		1	11/04/2020 10:52	WG1570632

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	559		9.70	21.1	1	11/04/2020 15:27	WG1570289

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	11/04/2020 07:53	WG1570529
(S) a,a,a-Trifluorotoluene(FID)	97.2			77.0-120		11/04/2020 07:53	WG1570529

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000518	0.00111	1	11/09/2020 00:20	WG1573109
Toluene	U		0.00144	0.00554	1	11/09/2020 00:20	WG1573109
Ethylbenzene	U		0.000817	0.00277	1	11/09/2020 00:20	WG1573109
Total Xylenes	U		0.000976	0.00721	1	11/09/2020 00:20	WG1573109
(S) Toluene-d8	106			75.0-131		11/09/2020 00:20	WG1573109
(S) 4-Bromofluorobenzene	96.4			67.0-138		11/09/2020 00:20	WG1573109
(S) 1,2-Dichloroethane-d4	90.4			70.0-130		11/09/2020 00:20	WG1573109

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.80		1.70	4.22	1	11/06/2020 08:15	WG1570695
C28-C40 Oil Range	8.28		0.289	4.22	1	11/06/2020 08:15	WG1570695
(S) o-Terphenyl	46.6			18.0-148		11/06/2020 08:15	WG1570695

Collected date/time: 10/28/20 16:50

L1280669

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.3		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	23.6		9.45	20.5	1	11/04/2020 15:37	WG1570289

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	11/04/2020 09:00	WG1570529
(S) a,a,a-Trifluorotoluene(FID)	96.9			77.0-120		11/04/2020 09:00	WG1570529

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000493	0.00105	1	11/09/2020 00:39	WG1573109
Toluene	U		0.00137	0.00527	1	11/09/2020 00:39	WG1573109
Ethylbenzene	U		0.000777	0.00264	1	11/09/2020 00:39	WG1573109
Total Xylenes	U		0.000928	0.00686	1	11/09/2020 00:39	WG1573109
(S) Toluene-d8	107			75.0-131		11/09/2020 00:39	WG1573109
(S) 4-Bromofluorobenzene	96.9			67.0-138		11/09/2020 00:39	WG1573109
(S) 1,2-Dichloroethane-d4	98.1			70.0-130		11/09/2020 00:39	WG1573109

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	17.3		1.65	4.11	1	11/06/2020 09:18	WG1570695
C28-C40 Oil Range	37.5		0.281	4.11	1	11/06/2020 09:18	WG1570695
(S) o-Terphenyl	47.1			18.0-148		11/06/2020 09:18	WG1570695

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.4		1	11/04/2020 10:52	WG1570632

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	27.8		10.8	23.4	1	11/04/2020 15:46	WG1570289

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0254	0.117	1	11/04/2020 09:23	WG1570529
(S) a,a,a-Trifluorotoluene(FID)	97.5			77.0-120		11/04/2020 09:23	WG1570529

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000626	0.00134	1	11/09/2020 00:58	WG1573109
Toluene	U		0.00174	0.00670	1	11/09/2020 00:58	WG1573109
Ethylbenzene	U		0.000988	0.00335	1	11/09/2020 00:58	WG1573109
Total Xylenes	U		0.00118	0.00872	1	11/09/2020 00:58	WG1573109
(S) Toluene-d8	105			75.0-131		11/09/2020 00:58	WG1573109
(S) 4-Bromofluorobenzene	98.9			67.0-138		11/09/2020 00:58	WG1573109
(S) 1,2-Dichloroethane-d4	100			70.0-130		11/09/2020 00:58	WG1573109

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.11	J	1.88	4.68	1	11/05/2020 12:36	WG1570695
C28-C40 Oil Range	3.25	J	0.321	4.68	1	11/05/2020 12:36	WG1570695
(S) o-Terphenyl	53.7			18.0-148		11/05/2020 12:36	WG1570695

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.1		1	11/04/2020 21:56	WG1570633

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	13.7	J	11.1	24.1	1	11/04/2020 16:15	WG1570289

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0261	0.120	1	11/04/2020 09:45	WG1570529
(S) a,a,a-Trifluorotoluene(FID)	97.8			77.0-120		11/04/2020 09:45	WG1570529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000658	0.00141	1	11/09/2020 01:17	WG1573109
Toluene	U		0.00183	0.00704	1	11/09/2020 01:17	WG1573109
Ethylbenzene	U		0.00104	0.00352	1	11/09/2020 01:17	WG1573109
Total Xylenes	U		0.00124	0.00915	1	11/09/2020 01:17	WG1573109
(S) Toluene-d8	104			75.0-131		11/09/2020 01:17	WG1573109
(S) 4-Bromofluorobenzene	95.1			67.0-138		11/09/2020 01:17	WG1573109
(S) 1,2-Dichloroethane-d4	98.0			70.0-130		11/09/2020 01:17	WG1573109

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.94	4.81	1	11/05/2020 11:06	WG1570695
C28-C40 Oil Range	0.477	J	0.330	4.81	1	11/05/2020 11:06	WG1570695
(S) o-Terphenyl	34.3			18.0-148		11/05/2020 11:06	WG1570695

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.9		1	11/04/2020 21:56	WG1570633

1 Cp

2 Tc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	27.5		10.6	23.0	1	11/04/2020 16:24	WG1570289

3 Ss

4 Cn

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.266		0.0250	0.115	1	11/04/2020 10:07	WG1570529
(S) a,a,a-Trifluorotoluene(FID)	99.0			77.0-120		11/04/2020 10:07	WG1570529

5 Sr

6 Qc

7 Gl

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000608	0.00130	1	11/11/2020 15:42	WG1574230
Toluene	U		0.00169	0.00651	1	11/11/2020 15:42	WG1574230
Ethylbenzene	U		0.000959	0.00325	1	11/11/2020 15:42	WG1574230
Total Xylenes	U		0.00115	0.00846	1	11/11/2020 15:42	WG1574230
(S) Toluene-d8	107			75.0-131		11/11/2020 15:42	WG1574230
(S) 4-Bromofluorobenzene	102			67.0-138		11/11/2020 15:42	WG1574230
(S) 1,2-Dichloroethane-d4	103			70.0-130		11/11/2020 15:42	WG1574230

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.85	4.60	1	11/05/2020 11:19	WG1570695
C28-C40 Oil Range	1.47	J	0.315	4.60	1	11/05/2020 11:19	WG1570695
(S) o-Terphenyl	62.2			18.0-148		11/05/2020 11:19	WG1570695

Total Solids by Method 2540 G-2011 [L1280669-01,02,03,04,05](#)

Method Blank (MB)

(MB) R3589621-1 11/04/20 11:31

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

L1280669-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1280669-02 11/04/20 11:31 • (DUP) R3589621-3 11/04/20 11:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	96.3	95.2	1	1.06		10

Laboratory Control Sample (LCS)

(LCS) R3589621-2 11/04/20 11:31

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011

[L1280669-06,07,08,09,10,11,12,13,14,15](#)

Method Blank (MB)

(MB) R3589617-1 11/04/20 11:04

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1280669-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1280669-12 11/04/20 11:04 • (DUP) R3589617-3 11/04/20 11:04

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	95.5	94.1	1	1.56		10

Laboratory Control Sample (LCS)

(LCS) R3589617-2 11/04/20 11:04

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1280669-16,17,18,19,20,21,22,23,24,25](#)

Method Blank (MB)

(MB) R3589610-1 11/04/20 10:52

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

L1280669-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1280669-23 11/04/20 10:52 • (DUP) R3589610-3 11/04/20 10:52

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	94.9	94.6	1	0.299		10

Laboratory Control Sample (LCS)

(LCS) R3589610-2 11/04/20 10:52

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1280669-26,27](#)

Method Blank (MB)

(MB) R3589768-1 11/04/20 21:56

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1280672-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1280672-02 11/04/20 21:56 • (DUP) R3589768-3 11/04/20 21:56

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	94.2	95.2	1	1.06		10

Laboratory Control Sample (LCS)

(LCS) R3589768-2 11/04/20 21:56

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

[L1280669-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20](#)

Method Blank (MB)

(MB) R3589511-1 11/04/20 02:09

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

L1280669-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1280669-02 11/04/20 08:09 • (DUP) R3589511-3 11/04/20 08:19

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	68.5	66.5	1	2.96		20

L1280669-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1280669-20 11/04/20 12:07 • (DUP) R3589511-6 11/04/20 12:17

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	34.1	35.3	1	3.28		20

Laboratory Control Sample (LCS)

(LCS) R3589511-2 11/04/20 02:18

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	215	108	90.0-110	

L1280669-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1280669-03 11/04/20 08:28 • (MS) R3589511-4 11/04/20 08:38 • (MSD) R3589511-5 11/04/20 08:47

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	521	36.6	578	584	104	105	1	80.0-120			0.999	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

[L1280669-21,22,23,24,25,26,27](#)

Method Blank (MB)

(MB) R3589512-1 11/04/20 14:20

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1280669-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1280669-21 11/04/20 14:39 • (DUP) R3589512-3 11/04/20 14:49

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	35.3	25.2	1	33.3	P1	20

L1280672-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1280672-10 11/04/20 18:18 • (DUP) R3589512-6 11/04/20 18:28

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	16.2	13.7	1	16.7	J	20

Laboratory Control Sample (LCS)

(LCS) R3589512-2 11/04/20 14:30

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	185	92.3	90.0-110	

L1280669-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1280669-22 11/04/20 14:58 • (MS) R3589512-4 11/04/20 15:08 • (MSD) R3589512-5 11/04/20 15:18

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	531	384	907	829	98.6	83.9	1	80.0-120			8.98	20

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

[L1280669-01,02,03,04,05,06,07,08,09,10,11](#)

Method Blank (MB)

(MB) R3589437-2 11/04/20 00:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0360	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	95.4			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3589437-1 11/03/20 23:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.03	91.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

L1280669-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1280669-02 11/04/20 07:25 • (MS) R3589437-3 11/04/20 08:13 • (MSD) R3589437-4 11/04/20 09:01

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	593	13.7	389	389	63.3	63.3	100	10.0-151			0.000	28
(S) a,a,a-Trifluorotoluene(FID)					103	105		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

L1280669-12,13,14,15,16,17,18,19,20,21,22

Method Blank (MB)

(MB) R3589918-2 11/04/20 13:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0679	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.0			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3589918-1 11/04/20 12:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.34	115	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			109	77.0-120	

L1279335-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1279335-12 11/04/20 19:50 • (MS) R3589918-3 11/04/20 22:54 • (MSD) R3589918-4 11/04/20 23:17

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	123	U	78.9	72.8	63.9	59.0	25	10.0-151			8.06	28
(S) a,a,a-Trifluorotoluene(FID)					106	105		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

[L1280669-23,24,25,26,27](#)

Method Blank (MB)

(MB) R3589770-3 11/04/20 01:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	98.9			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3589770-2 11/04/20 00:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.60	102	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			100	77.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

L1280669-01,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19

Method Blank (MB)

(MB) R3590957-3 11/08/20 12:30

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	104			75.0-131
(S) 4-Bromofluorobenzene	94.6			67.0-138
(S) 1,2-Dichloroethane-d4	104			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R3590957-1 11/08/20 11:14 • (LCSD) R3590957-2 11/08/20 11:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.108	0.111	86.4	88.8	70.0-123			2.74	20
Ethylbenzene	0.125	0.114	0.121	91.2	96.8	74.0-126			5.96	20
Toluene	0.125	0.108	0.107	86.4	85.6	75.0-121			0.930	20
Xylenes, Total	0.375	0.345	0.366	92.0	97.6	72.0-127			5.91	20
(S) Toluene-d8				101	99.5	75.0-131				
(S) 4-Bromofluorobenzene				106	105	67.0-138				
(S) 1,2-Dichloroethane-d4				118	118	70.0-130				

L1280669-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1280669-19 11/08/20 19:32 • (MS) R3590957-4 11/08/20 20:11 • (MSD) R3590957-5 11/08/20 20:30

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	0.138	U	0.0815	0.0821	58.9	59.3	1	10.0-149			0.677	37
Ethylbenzene	0.138	U	0.0827	0.0956	59.8	69.0	1	10.0-160			14.4	38
Toluene	0.138	U	0.0861	0.0873	62.2	63.0	1	10.0-156			1.41	38
Xylenes, Total	0.415	U	0.253	0.272	60.8	65.6	1	10.0-160			7.59	38
(S) Toluene-d8					108	106		75.0-131				
(S) 4-Bromofluorobenzene					100	103		67.0-138				
(S) 1,2-Dichloroethane-d4					106	107		70.0-130				

Method Blank (MB)

(MB) R3591437-2 11/08/20 22:25

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	106			75.0-131
(S) 4-Bromofluorobenzene	99.3			67.0-138
(S) 1,2-Dichloroethane-d4	99.2			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3591437-1 11/08/20 21:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.117	93.6	70.0-123	
Ethylbenzene	0.125	0.132	106	74.0-126	
Toluene	0.125	0.116	92.8	75.0-121	
Xylenes, Total	0.375	0.385	103	72.0-127	
(S) Toluene-d8			99.7	75.0-131	
(S) 4-Bromofluorobenzene			101	67.0-138	
(S) 1,2-Dichloroethane-d4			115	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

L1280669-02

Method Blank (MB)

(MB) R3591276-3 11/09/20 19:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	99.5			75.0-131
(S) 4-Bromofluorobenzene	103			67.0-138
(S) 1,2-Dichloroethane-d4	110			70.0-130

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

(LCS) R3591276-1 11/09/20 17:49 • (LCSD) R3591276-2 11/09/20 18:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.134	0.146	107	117	70.0-123			8.57	20
Ethylbenzene	0.125	0.118	0.132	94.4	106	74.0-126			11.2	20
Toluene	0.125	0.119	0.128	95.2	102	75.0-121			7.29	20
Xylenes, Total	0.375	0.349	0.380	93.1	101	72.0-127			8.50	20
(S) Toluene-d8				100	101	75.0-131				
(S) 4-Bromofluorobenzene				99.6	102	67.0-138				
(S) 1,2-Dichloroethane-d4				107	114	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

L1280669-27

Method Blank (MB)

(MB) R3591888-2 11/11/20 13:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	106			75.0-131
(S) 4-Bromofluorobenzene	104			67.0-138
(S) 1,2-Dichloroethane-d4	88.5			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3591888-1 11/11/20 11:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.115	92.0	70.0-123	
Ethylbenzene	0.125	0.139	111	74.0-126	
Toluene	0.125	0.120	96.0	75.0-121	
Xylenes, Total	0.375	0.417	111	72.0-127	
(S) Toluene-d8			105	75.0-131	
(S) 4-Bromofluorobenzene			109	67.0-138	
(S) 1,2-Dichloroethane-d4			100	70.0-130	

L1283591-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283591-02 11/11/20 14:25 • (MS) R3591888-3 11/11/20 14:44 • (MSD) R3591888-4 11/11/20 15:03

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.167	U	0.148	0.153	88.7	91.8	1	10.0-149			3.42	37
Ethylbenzene	0.167	U	0.174	0.177	105	106	1	10.0-160			1.72	38
Toluene	0.167	U	0.165	0.151	99.1	90.6	1	10.0-156			8.91	38
Xylenes, Total	0.500	U	0.540	0.514	108	103	1	10.0-160			4.89	38
(S) Toluene-d8					106	104		75.0-131				
(S) 4-Bromofluorobenzene					103	105		67.0-138				
(S) 1,2-Dichloroethane-d4					104	106		70.0-130				

Semi-Volatile Organic Compounds (GC) by Method 8015

[L1280669-01,02,03,04,05,06,07,08,09,10,11](#)

Method Blank (MB)

(MB) R3589680-1 11/05/20 04:36

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	94.4			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3589680-2 11/05/20 04:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	42.8	85.6	50.0-150	
(S) o-Terphenyl			92.8	18.0-148	

L1277690-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1277690-14 11/05/20 11:46 • (MS) R3589680-3 11/05/20 11:59 • (MSD) R3589680-4 11/05/20 12:13

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	47.7	U	38.5	42.7	80.7	89.0	1	50.0-150			10.3	20
(S) o-Terphenyl					83.3	93.7		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

[L1280669-12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27](#)

Method Blank (MB)

(MB) R3589806-1 11/05/20 02:52

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	63.8			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3589806-2 11/05/20 03:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.8	81.6	50.0-150	
(S) o-Terphenyl			81.1	18.0-148	

L1280669-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1280669-19 11/06/20 09:31 • (MS) R3590159-1 11/06/20 09:44 • (MSD) R3590159-2 11/06/20 09:57

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	52.2	19.8	67.9	66.5	92.1	89.5	1	50.0-150			2.04	20
(S) o-Terphenyl					68.0	34.5		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

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

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

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN2000002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

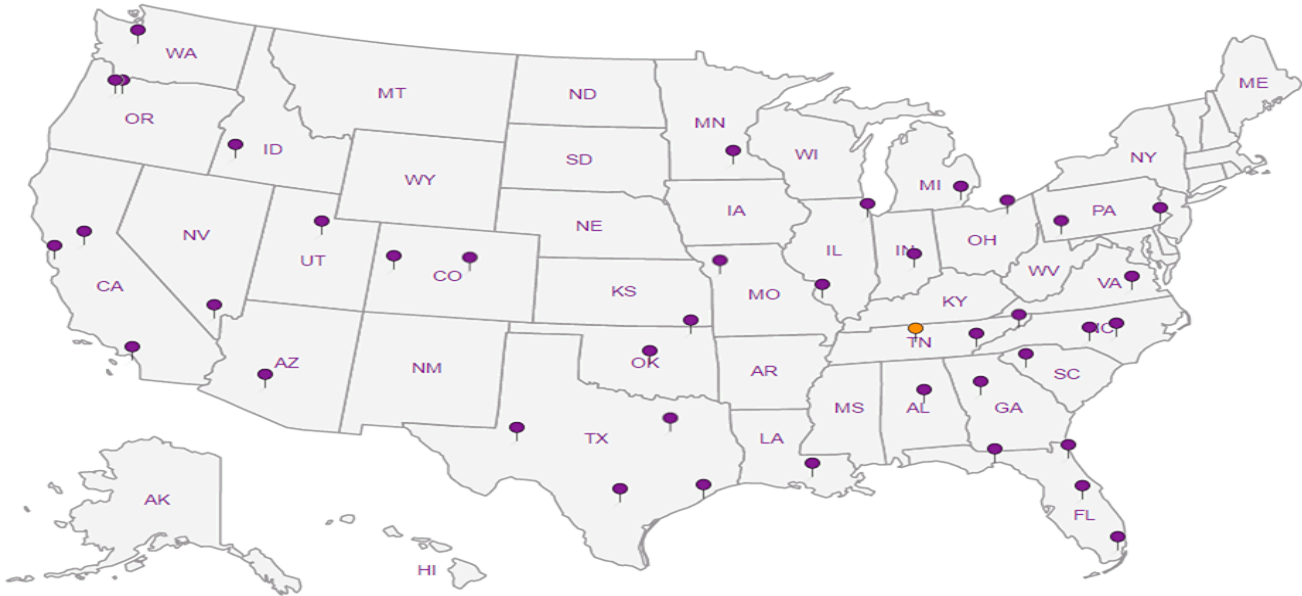
Third Party Federal Accreditations

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

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

Our Locations

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



41280669



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: Britt B Well #24 Flowline Release (1RP-1530)
Contact Info: Email: christian.llull@tetratech.com
Phone: (512) 338-1667
Project Location: Lea County, New Mexico
Project #: 212C-MD-02334, Task No. 16
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		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD	
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	NONE																								
		DATE	TIME																														
-01	BH-1 (0'-1')	10/28/20	1200	X				X		1	N	X	X														X						
-02	BH-1 (2'-3')	10/28/20	1210	X				X		1	N	X	X														X						
-03	BH-1 (4'-5')	10/28/20	1220	X				X		1	N	X	X														X						
-04	BH-1 (6'-7')	10/28/20	1230	X				X		1	N	X	X														X						
-05	BH-1 (9'-10')	10/28/20	1240	X				X		1	N	X	X														X						
-06	BH-1 (14'-15')	10/28/20	1250	X				X		1	N	X	X														X						
-07	BH-1 (19'-20')	10/28/20	1300	X				X		1	N	X	X														X						
-08	BH-1 (24'-25')	10/28/20	1320	X				X		1	N	X	X														X						
-09	BH-1 (29'-30')	10/28/20	1340	X				X		1	N	X	X														X						
-10	BH-2 (0'-1')	10/28/20	1400	X				X		1	N	X	X														X						

Relinquished by: Joe Tyler	Date: 11-2-20	Time: 14:00	Received by: [Signature]	Date: 11-2-20	Time: 14:00
Relinquished by: [Signature]	Date: 11-2-20	Time: 15:30	Received by: SWA	Date: 11-2-20	Time: 15:30
Relinquished by:	Date:	Time:	Received by: B. Barro	Date: 11-3-26	Time: 0800

LAB USE ONLY

Sample Temperature

REMARKS:

☒ Standard

☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

0.5-1-0.443
CR

ORIGINAL COPY

A223

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

L7280669



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:	Britt B Well #24 Flowline Release (1RP-1530)	Contact Info:	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02334, Task No. 16
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		MATRIX			PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B / 624	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD		
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	NONE																										
		DATE	TIME																																
-11	BH-2 (2'-3')	10/28/20	1410		X			X			1	N	X	X																					
-12	BH-2 (4'-5')	10/28/20	1420		X				X		1	N	X	X															X						
-13	BH-2 (6'-7')	10/28/20	1430		X				X		1	N	X	X															X						
-14	BH-2 (9'-10')	10/28/20	1440		X				X		1	N	X	X															X						
-15	BH-2 (14'-15')	10/28/20	1450		X				X		1	N	X	X															X						
-16	BH-2 (19'-20')	10/28/20	1500		X				X		1	N	X	X															X						
-17	BH-2 (24'-25')	10/28/20	1520		X				X		1	N	X	X															X						
-18	BH-2 (29'-30')	10/28/20	1540		X				X		1	N	X	X															X						
-19	BH-3 (0'-1')	10/28/20	1600		X				X		1	N	X	X															X						
-20	BH-3 (2'-3')	10/28/20	1610		X				X		1	N	X	X															X						

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Joe Tyler	11-2-20	14:00	[Signature]	11-2-20	14:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[Signature]	11-2-20	15:30	SLA	11-2-20	15:30
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
			B. Banao	11-3-20	0800

LAB USE ONLY	REMARKS:
	<input checked="" type="checkbox"/> Standard
	<input type="checkbox"/> RUSH: Same Day 24 hr. 48 hr. 72 hr.
	<input type="checkbox"/> Rush Charges Authorized
	<input type="checkbox"/> Special Report Limits or TRRP Report
Sample Temperature	

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____



ANALYSIS REQUEST
(Circle or Specify Method No.)

Site Manager: Christian Lull

Contact Info:	Email: christian.llull@tetrattech.com
	Phone: (512) 338-1667

Project #: 212C-MD-02334, Task No. 16

Receiving Laboratory: Pace Analytical

Sampler Signature: Joe Tyler

Comments: COPTETRA Acctnum

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	
INORM	
PLM (Asbestos)	
Chloride 300.0	
Chloride Sulfate TDS	
General Water Chemistry (see attached list)	
Anion/Cation Balance	
TPH 8015R	

Received by:	Date:	Time:
<i>[Signature]</i>	11-2-20	14:00

Received by:	Date:	Time:
SWA	11-2-20	15:30

Received by:	Date:	Time:
B. Bauer	11-3-26	0800

REMARKS:

☒ Standard

☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.☐ Rush Charges Authorized

Sample Receipt Checklist

COC Seal Present/Intact:	<u>Y</u>	<u>N</u>	If Applicable	
COC Signed/Accurate:	<u>Y</u>	<u>N</u>	VOA Zero Headpace:	<u>Y</u> <u>N</u>
Bottles arrive intact:	<u>Y</u>	<u>N</u>	Pres. Correct/Check:	<u>Y</u> <u>N</u>
Correct bottles used:	<u>Y</u>	<u>N</u>		
Sufficient volume sent:	<u>Y</u>	<u>N</u>		
RAP Screen <0.5 mR/hr:	<u>Y</u>	<u>N</u>		



ANALYTICAL REPORT

November 23, 2020

ConocoPhillips - Tetra Tech

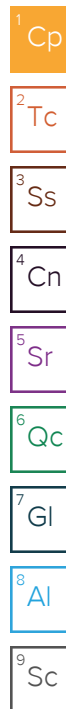
Sample Delivery Group: L1283204
Samples Received: 11/07/2020
Project Number: 212C-MD-02334
Description: Britt B Well #24 Flowline Release (1RP-1530)

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

Entire Report Reviewed By:

Erica McNeese
Project Manager

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



Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	6
Sr: Sample Results	7
AH-4 (0-1') L1283204-01	7
AH-4 (1-2') L1283204-02	8
AH-5 (0-1') L1283204-03	9
AH-5 (1-2') L1283204-04	10
AH-6 (0-1') L1283204-05	11
AH-6 (1-2') L1283204-06	12
AH-7 (0-1') L1283204-07	13
AH-7 (1-2') L1283204-08	14
AH-8 (0-1') L1283204-09	15
AH-8 (1-2') L1283204-10	16
AH-9 (0-1') L1283204-11	17
AH-9 (1-2') L1283204-12	18
Qc: Quality Control Summary	19
Total Solids by Method 2540 G-2011	19
Wet Chemistry by Method 300.0	21
Volatile Organic Compounds (GC) by Method 8015D/GRO	22
Volatile Organic Compounds (GC/MS) by Method 8260B	26
Semi-Volatile Organic Compounds (GC) by Method 8015	29
Gl: Glossary of Terms	30
Al: Accreditations & Locations	31
Sc: Sample Chain of Custody	32



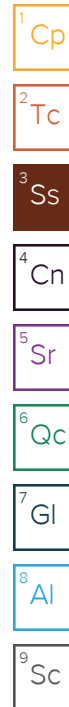
AH-4 (0-1') L1283204-01 Solid

Collected by
Adrian Garcia

Collected date/time
11/04/20 12:00

Received date/time
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575376	1	11/13/20 04:05	11/13/20 04:15	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 02:22	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1574591	1	11/10/20 22:22	11/12/20 00:43	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1574741	1	11/10/20 22:22	11/12/20 03:33	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1576043	1	11/10/20 22:22	11/13/20 19:06	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/16/20 22:54	JDG	Mt. Juliet, TN



AH-4 (1-2') L1283204-02 Solid

Collected by
Adrian Garcia

Collected date/time
11/04/20 12:10

Received date/time
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575376	1	11/13/20 04:05	11/13/20 04:15	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 02:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1574591	1	11/10/20 22:22	11/12/20 01:06	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1574741	1	11/10/20 22:22	11/12/20 03:52	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1576043	1	11/10/20 22:22	11/13/20 19:25	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 11:20	JN	Mt. Juliet, TN

AH-5 (0-1') L1283204-03 Solid

Collected by
Adrian Garcia

Collected date/time
11/04/20 12:20

Received date/time
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575376	1	11/13/20 04:05	11/13/20 04:15	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 03:00	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1574591	1	11/10/20 22:22	11/12/20 01:28	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1574741	1	11/10/20 22:22	11/12/20 04:11	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 10:02	JN	Mt. Juliet, TN

AH-5 (1-2') L1283204-04 Solid

Collected by
Adrian Garcia

Collected date/time
11/04/20 12:30

Received date/time
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575376	1	11/13/20 04:05	11/13/20 04:15	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 03:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575601	1	11/10/20 22:22	11/13/20 01:34	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1574741	1	11/10/20 22:22	11/12/20 04:30	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 11:34	JN	Mt. Juliet, TN

AH-6 (0-1') L1283204-05 Solid

Collected by
Adrian Garcia

Collected date/time
11/04/20 12:40

Received date/time
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575376	1	11/13/20 04:05	11/13/20 04:15	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 03:39	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575061	1	11/10/20 22:22	11/12/20 18:12	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 11:34	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 11:47	JN	Mt. Juliet, TN

AH-6 (1-2') L1283204-06 Solid

				Collected by Adrian Garcia	Collected date/time 11/04/20 12:50	Received date/time 11/07/20 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575376	1	11/13/20 04:05	11/13/20 04:15	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 03:49	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575061	1	11/10/20 22:22	11/12/20 18:34	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 11:53	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 08:56	JN	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

AH-7 (0-1') L1283204-07 Solid

				Collected by Adrian Garcia	Collected date/time 11/04/20 13:00	Received date/time 11/07/20 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 03:58	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575061	1	11/10/20 22:22	11/12/20 18:58	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 12:12	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 09:49	JN	Mt. Juliet, TN

AH-7 (1-2') L1283204-08 Solid

				Collected by Adrian Garcia	Collected date/time 11/04/20 13:20	Received date/time 11/07/20 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 04:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575061	1	11/10/20 22:22	11/12/20 19:33	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 13:10	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 09:09	JN	Mt. Juliet, TN

AH-8 (0-1') L1283204-09 Solid

				Collected by Adrian Garcia	Collected date/time 11/04/20 13:40	Received date/time 11/07/20 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 04:18	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/10/20 22:22	11/12/20 05:37	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 13:29	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 10:15	JN	Mt. Juliet, TN

AH-8 (1-2') L1283204-10 Solid

				Collected by Adrian Garcia	Collected date/time 11/04/20 14:00	Received date/time 11/07/20 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 04:27	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/10/20 22:22	11/12/20 05:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 13:58	AV	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 10:28	JN	Mt. Juliet, TN

AH-9 (0-1') L1283204-11 Solid

Collected by
Adrian Garcia

Collected date/time
11/04/20 14:10

Received date/time
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 04:37	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/10/20 22:22	11/12/20 06:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 14:17	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 09:36	JN	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

AH-9 (1-2') L1283204-12 Solid

Collected by
Adrian Garcia

Collected date/time
11/04/20 14:20

Received date/time
11/07/20 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1575378	1	11/13/20 03:57	11/13/20 04:03	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1573352	1	11/09/20 16:10	11/10/20 04:46	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1575123	1	11/10/20 22:22	11/12/20 06:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1575403	1	11/10/20 22:22	11/12/20 14:36	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1576739	1	11/14/20 21:33	11/15/20 09:23	JN	Mt. Juliet, TN

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

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

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

Collected date/time: 11/04/20 12:00

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.2		1	11/13/2020 04:15	WG1575376

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.28	20.2	1	11/10/2020 02:22	WG1573352

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		0.0219	0.101	1	11/12/2020 00:43	WG1574591
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-120		11/12/2020 00:43	WG1574591

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		0.000475	0.00102	1	11/12/2020 03:33	WG1574741
Toluene	U		0.00132	0.00509	1	11/12/2020 03:33	WG1574741
Ethylbenzene	U		0.000750	0.00254	1	11/12/2020 03:33	WG1574741
Total Xylenes	0.00122	J	0.000895	0.00661	1	11/13/2020 19:06	WG1576043
(S) Toluene-d8	110			75.0-131		11/12/2020 03:33	WG1574741
(S) Toluene-d8	104			75.0-131		11/13/2020 19:06	WG1576043
(S) 4-Bromofluorobenzene	100			67.0-138		11/12/2020 03:33	WG1574741
(S) 4-Bromofluorobenzene	99.0			67.0-138		11/13/2020 19:06	WG1576043
(S) 1,2-Dichloroethane-d4	97.9			70.0-130		11/12/2020 03:33	WG1574741
(S) 1,2-Dichloroethane-d4	85.9			70.0-130		11/13/2020 19:06	WG1576043

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	6.24		1.62	4.03	1	11/16/2020 22:54	WG1576739
C28-C40 Oil Range	20.0		0.276	4.03	1	11/16/2020 22:54	WG1576739
(S) o-Terphenyl	66.6			18.0-148		11/16/2020 22:54	WG1576739

Collected date/time: 11/04/20 12:10

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.2		1	11/13/2020 04:15	WG1575376

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.28	20.2	1	11/10/2020 02:31	WG1573352

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

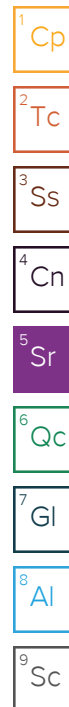
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	11/12/2020 01:06	WG1574591
(S) a,a,a-Trifluorotoluene(FID)	97.5			77.0-120		11/12/2020 01:06	WG1574591

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		0.000475	0.00102	1	11/12/2020 03:52	WG1574741
Toluene	U		0.00132	0.00508	1	11/12/2020 03:52	WG1574741
Ethylbenzene	U		0.000749	0.00254	1	11/12/2020 03:52	WG1574741
Total Xylenes	0.00109	J	0.000894	0.00661	1	11/13/2020 19:25	WG1576043
(S) Toluene-d8	112			75.0-131		11/12/2020 03:52	WG1574741
(S) Toluene-d8	105			75.0-131		11/13/2020 19:25	WG1576043
(S) 4-Bromofluorobenzene	98.4			67.0-138		11/12/2020 03:52	WG1574741
(S) 4-Bromofluorobenzene	99.7			67.0-138		11/13/2020 19:25	WG1576043
(S) 1,2-Dichloroethane-d4	91.3			70.0-130		11/12/2020 03:52	WG1574741
(S) 1,2-Dichloroethane-d4	85.1			70.0-130		11/13/2020 19:25	WG1576043

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	6.66		1.62	4.03	1	11/15/2020 11:20	WG1576739
C28-C40 Oil Range	34.0		0.276	4.03	1	11/15/2020 11:20	WG1576739
(S) o-Terphenyl	70.1			18.0-148		11/15/2020 11:20	WG1576739



Collected date/time: 11/04/20 12:20

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.5		1	11/13/2020 04:15	WG1575376

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.25	20.1	1	11/10/2020 03:00	WG1573352

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	11/12/2020 01:28	WG1574591
(S) a,a,a-Trifluorotoluene(FID)	97.4			77.0-120		11/12/2020 01:28	WG1574591

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000472	0.00101	1	11/12/2020 04:11	WG1574741
Toluene	U		0.00131	0.00505	1	11/12/2020 04:11	WG1574741
Ethylbenzene	U		0.000745	0.00253	1	11/12/2020 04:11	WG1574741
Total Xylenes	U		0.000889	0.00657	1	11/12/2020 04:11	WG1574741
(S) Toluene-d8	109			75.0-131		11/12/2020 04:11	WG1574741
(S) 4-Bromofluorobenzene	98.2			67.0-138		11/12/2020 04:11	WG1574741
(S) 1,2-Dichloroethane-d4	92.5			70.0-130		11/12/2020 04:11	WG1574741

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	3.70	J	1.62	4.02	1	11/15/2020 10:02	WG1576739
C28-C40 Oil Range	20.0		0.275	4.02	1	11/15/2020 10:02	WG1576739
(S) o-Terphenyl	44.2			18.0-148		11/15/2020 10:02	WG1576739

Collected date/time: 11/04/20 12:30

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.6		1	11/13/2020 04:15	WG1575376

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.24	20.1	1	11/10/2020 03:09	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0347	J	0.0218	0.100	1	11/13/2020 01:34	WG1575601
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		11/13/2020 01:34	WG1575601

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000471	0.00101	1	11/12/2020 04:30	WG1574741
Toluene	U		0.00131	0.00504	1	11/12/2020 04:30	WG1574741
Ethylbenzene	U		0.000743	0.00252	1	11/12/2020 04:30	WG1574741
Total Xylenes	U		0.000888	0.00656	1	11/12/2020 04:30	WG1574741
(S) Toluene-d8	107			75.0-131		11/12/2020 04:30	WG1574741
(S) 4-Bromofluorobenzene	101			67.0-138		11/12/2020 04:30	WG1574741
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		11/12/2020 04:30	WG1574741

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	7.85		1.62	4.02	1	11/15/2020 11:34	WG1576739
C28-C40 Oil Range	42.8		0.275	4.02	1	11/15/2020 11:34	WG1576739
(S) o-Terphenyl	62.9			18.0-148		11/15/2020 11:34	WG1576739

Collected date/time: 11/04/20 12:40

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.6		1	11/13/2020 04:15	WG1575376

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.24	20.1	1	11/10/2020 03:39	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/12/2020 18:12	WG1575061
(S) a,a,a-Trifluorotoluene(FID)	97.3			77.0-120		11/12/2020 18:12	WG1575061

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000471	0.00101	1	11/12/2020 11:34	WG1575403
Toluene	U		0.00131	0.00504	1	11/12/2020 11:34	WG1575403
Ethylbenzene	U		0.000743	0.00252	1	11/12/2020 11:34	WG1575403
Total Xylenes	0.000898	J	0.000887	0.00655	1	11/12/2020 11:34	WG1575403
(S) Toluene-d8	112			75.0-131		11/12/2020 11:34	WG1575403
(S) 4-Bromofluorobenzene	94.4			67.0-138		11/12/2020 11:34	WG1575403
(S) 1,2-Dichloroethane-d4	101			70.0-130		11/12/2020 11:34	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.19		1.62	4.02	1	11/15/2020 11:47	WG1576739
C28-C40 Oil Range	18.7		0.275	4.02	1	11/15/2020 11:47	WG1576739
(S) o-Terphenyl	68.6			18.0-148		11/15/2020 11:47	WG1576739

Collected date/time: 11/04/20 12:50

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.6		1	11/13/2020 04:15	WG1575376

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.24	20.1	1	11/10/2020 03:49	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0218	0.100	1	11/12/2020 18:34	WG1575061
(S) a,a,a-Trifluorotoluene(FID)	98.0			77.0-120		11/12/2020 18:34	WG1575061

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000471	0.00101	1	11/12/2020 11:53	WG1575403
Toluene	U		0.00131	0.00504	1	11/12/2020 11:53	WG1575403
Ethylbenzene	U		0.000744	0.00252	1	11/12/2020 11:53	WG1575403
Total Xylenes	U		0.000888	0.00656	1	11/12/2020 11:53	WG1575403
(S) Toluene-d8	127			75.0-131		11/12/2020 11:53	WG1575403
(S) 4-Bromofluorobenzene	99.9			67.0-138		11/12/2020 11:53	WG1575403
(S) 1,2-Dichloroethane-d4	99.0			70.0-130		11/12/2020 11:53	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.62	J	1.62	4.02	1	11/15/2020 08:56	WG1576739
C28-C40 Oil Range	11.7		0.275	4.02	1	11/15/2020 08:56	WG1576739
(S) o-Terphenyl	60.2			18.0-148		11/15/2020 08:56	WG1576739

Collected date/time: 11/04/20 13:00

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.7		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.33	20.3	1	11/10/2020 03:58	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	11/12/2020 18:58	WG1575061
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-120		11/12/2020 18:58	WG1575061

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000480	0.00103	1	11/12/2020 12:12	WG1575403
Toluene	U		0.00134	0.00514	1	11/12/2020 12:12	WG1575403
Ethylbenzene	U		0.000757	0.00257	1	11/12/2020 12:12	WG1575403
Total Xylenes	U		0.000904	0.00668	1	11/12/2020 12:12	WG1575403
(S) Toluene-d8	113			75.0-131		11/12/2020 12:12	WG1575403
(S) 4-Bromofluorobenzene	90.2			67.0-138		11/12/2020 12:12	WG1575403
(S) 1,2-Dichloroethane-d4	93.4			70.0-130		11/12/2020 12:12	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.75	J	1.63	4.05	1	11/15/2020 09:49	WG1576739
C28-C40 Oil Range	21.7		0.278	4.05	1	11/15/2020 09:49	WG1576739
(S) o-Terphenyl	69.0			18.0-148		11/15/2020 09:49	WG1576739

Collected date/time: 11/04/20 13:20

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.2		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.36	20.4	1	11/10/2020 04:08	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	11/12/2020 19:33	WG1575061
(S) a,a,a-Trifluorotoluene(FID)	97.5			77.0-120		11/12/2020 19:33	WG1575061

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000484	0.00104	1	11/12/2020 13:10	WG1575403
Toluene	U		0.00135	0.00518	1	11/12/2020 13:10	WG1575403
Ethylbenzene	U		0.000763	0.00259	1	11/12/2020 13:10	WG1575403
Total Xylenes	U		0.000911	0.00673	1	11/12/2020 13:10	WG1575403
(S) Toluene-d8	112			75.0-131		11/12/2020 13:10	WG1575403
(S) 4-Bromofluorobenzene	93.8			67.0-138		11/12/2020 13:10	WG1575403
(S) 1,2-Dichloroethane-d4	97.4			70.0-130		11/12/2020 13:10	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.86	J	1.64	4.07	1	11/15/2020 09:09	WG1576739
C28-C40 Oil Range	18.6		0.279	4.07	1	11/15/2020 09:09	WG1576739
(S) o-Terphenyl	76.1			18.0-148		11/15/2020 09:09	WG1576739

Collected date/time: 11/04/20 13:40

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.5		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.25	20.1	1	11/10/2020 04:18	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	11/12/2020 05:37	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	104			77.0-120		11/12/2020 05:37	WG1575123

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000472	0.00101	1	11/12/2020 13:29	WG1575403
Toluene	U		0.00131	0.00505	1	11/12/2020 13:29	WG1575403
Ethylbenzene	U		0.000745	0.00253	1	11/12/2020 13:29	WG1575403
Total Xylenes	U		0.000889	0.00657	1	11/12/2020 13:29	WG1575403
(S) Toluene-d8	119			75.0-131		11/12/2020 13:29	WG1575403
(S) 4-Bromofluorobenzene	99.1			67.0-138		11/12/2020 13:29	WG1575403
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		11/12/2020 13:29	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.71	J	1.62	4.02	1	11/15/2020 10:15	WG1576739
C28-C40 Oil Range	15.6		0.275	4.02	1	11/15/2020 10:15	WG1576739
(S) o-Terphenyl	27.7			18.0-148		11/15/2020 10:15	WG1576739

Collected date/time: 11/04/20 14:00

L1283204

Total Solids by Method 2540 G-2011

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

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	U		9.26	20.1	1	11/10/2020 04:27	WG1573352

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	11/12/2020 05:58	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		11/12/2020 05:58	WG1575123

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000473	0.00101	1	11/12/2020 13:58	WG1575403
Toluene	U		0.00132	0.00507	1	11/12/2020 13:58	WG1575403
Ethylbenzene	U		0.000747	0.00253	1	11/12/2020 13:58	WG1575403
Total Xylenes	U		0.000892	0.00659	1	11/12/2020 13:58	WG1575403
(S) Toluene-d8	143	J1		75.0-131		11/12/2020 13:58	WG1575403
(S) 4-Bromofluorobenzene	93.8			67.0-138		11/12/2020 13:58	WG1575403
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		11/12/2020 13:58	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.85	J	1.62	4.03	1	11/15/2020 10:28	WG1576739
C28-C40 Oil Range	19.9		0.276	4.03	1	11/15/2020 10:28	WG1576739
(S) o-Terphenyl	33.0			18.0-148		11/15/2020 10:28	WG1576739

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

Collected date/time: 11/04/20 14:10

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.7		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.33	20.3	1	11/10/2020 04:37	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	11/12/2020 06:19	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	105			77.0-120		11/12/2020 06:19	WG1575123

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000480	0.00103	1	11/12/2020 14:17	WG1575403
Toluene	U		0.00134	0.00514	1	11/12/2020 14:17	WG1575403
Ethylbenzene	U		0.000757	0.00257	1	11/12/2020 14:17	WG1575403
Total Xylenes	0.000991	J	0.000904	0.00668	1	11/12/2020 14:17	WG1575403
(S) Toluene-d8	133	J1		75.0-131		11/12/2020 14:17	WG1575403
(S) 4-Bromofluorobenzene	93.6			67.0-138		11/12/2020 14:17	WG1575403
(S) 1,2-Dichloroethane-d4	92.4			70.0-130		11/12/2020 14:17	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.75	J	1.63	4.05	1	11/15/2020 09:36	WG1576739
C28-C40 Oil Range	16.7		0.278	4.05	1	11/15/2020 09:36	WG1576739
(S) o-Terphenyl	80.1			18.0-148		11/15/2020 09:36	WG1576739

Collected date/time: 11/04/20 14:20

L1283204

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.8		1	11/13/2020 04:03	WG1575378

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.31	20.2	1	11/10/2020 04:46	WG1573352

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0360	B J	0.0220	0.101	1	11/12/2020 06:40	WG1575123
(S) a,a,a-Trifluorotoluene(FID)	106			77.0-120		11/12/2020 06:40	WG1575123

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000478	0.00102	1	11/12/2020 14:36	WG1575403
Toluene	U		0.00133	0.00512	1	11/12/2020 14:36	WG1575403
Ethylbenzene	U		0.000755	0.00256	1	11/12/2020 14:36	WG1575403
Total Xylenes	0.000921	J	0.000901	0.00665	1	11/12/2020 14:36	WG1575403
(S) Toluene-d8	121			75.0-131		11/12/2020 14:36	WG1575403
(S) 4-Bromofluorobenzene	79.1			67.0-138		11/12/2020 14:36	WG1575403
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		11/12/2020 14:36	WG1575403

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	19.5		1.63	4.05	1	11/15/2020 09:23	WG1576739
C28-C40 Oil Range	21.9		0.277	4.05	1	11/15/2020 09:23	WG1576739
(S) o-Terphenyl	54.9			18.0-148		11/15/2020 09:23	WG1576739

Total Solids by Method 2540 G-2011 [L1283204-01,02,03,04,05,06](#)

Method Blank (MB)

(MB) R3592729-1 11/13/20 04:15

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

L1283204-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1283204-04 11/13/20 04:15 • (DUP) R3592729-3 11/13/20 04:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	99.6	99.5	1	0.115		10

Laboratory Control Sample (LCS)

(LCS) R3592729-2 11/13/20 04:15

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1283204-07,08,09,10,11,12](#)

Method Blank (MB)

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

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

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

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

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

Laboratory Control Sample (LCS)

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

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

[L1283204-01,02,03,04,05,06,07,08,09,10,11,12](#)

Method Blank (MB)

(MB) R3591392-1 11/10/20 00:13

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

L1283086-41 Original Sample (OS) • Duplicate (DUP)

(OS) L1283086-41 11/10/20 02:03 • (DUP) R3591392-3 11/10/20 02:12

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	536	587	1	9.19		20

L1283204-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1283204-12 11/10/20 04:46 • (DUP) R3591392-6 11/10/20 04:56

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

Laboratory Control Sample (LCS)

(LCS) R3591392-2 11/10/20 00:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	217	109	90.0-110	

L1283204-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283204-02 11/10/20 02:31 • (MS) R3591392-4 11/10/20 02:41 • (MSD) R3591392-5 11/10/20 02:50

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	504	U	541	545	107	108	1	80.0-120			0.785	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

L1283204-01,02,03

Method Blank (MB)

(MB) R3592354-3 11/11/20 17:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	98.9			77.0-120

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

(LCS) R3592354-1 11/11/20 16:31 • (LCSD) R3592354-2 11/11/20 16:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.80	5.91	105	107	72.0-127			1.88	20
(S) a,a,a-Trifluorotoluene(FID)				101	101	77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO [L1283204-05.06.07.08](#)

Method Blank (MB)

(MB) R3592472-3 11/12/20 12:23

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)	100			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3592472-2 11/12/20 11:37

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)			100	77.0-120	

L1283598-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283598-10 11/12/20 17:49 • (MS) R3592472-6 11/13/20 08:18 • (MSD) R3592472-7 11/13/20 08:40

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.45	1.59	5.50	2.65	71.7	19.7	1	10.0-151		J3	69.9	28
(S) a,a,a-Trifluorotoluene(FID)					95.8	91.2		77.0-120				

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

L1283204-09,10,11,12

Method Blank (MB)

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

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

Laboratory Control Sample (LCS)

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

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

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

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

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

[L1283204-04](#)

Method Blank (MB)

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

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

Laboratory Control Sample (LCS)

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

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

[L1283204-01,02,03,04](#)

Method Blank (MB)

(MB) R3592738-3 11/11/20 22:21

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	109			75.0-131
(S) 4-Bromofluorobenzene	103			67.0-138
(S) 1,2-Dichloroethane-d4	105			70.0-130

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

(LCS) R3592738-1 11/11/20 21:05 • (LCSD) R3592738-2 11/11/20 21:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.112	0.111	89.6	88.8	70.0-123			0.897	20
Ethylbenzene	0.125	0.120	0.122	96.0	97.6	74.0-126			1.65	20
Toluene	0.125	0.108	0.109	86.4	87.2	75.0-121			0.922	20
Xylenes, Total	0.375	0.372	0.351	99.2	93.6	72.0-127			5.81	20
(S) Toluene-d8				98.7	100	75.0-131				
(S) 4-Bromofluorobenzene				102	106	67.0-138				
(S) 1,2-Dichloroethane-d4				114	117	70.0-130				

L1282928-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282928-01 11/12/20 01:20 • (MS) R3592738-4 11/12/20 05:27 • (MSD) R3592738-5 11/12/20 05:46

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.124	0.0177	0.222	0.228	165	170	1	10.0-149	J5	J5	2.67	37
Ethylbenzene	0.124	0.0777	0.560	0.557	389	387	1	10.0-160	J5	J5	0.537	38
Toluene	0.124	0.334	2.16	2.15	1470	1460	1	10.0-156	J5	J5	0.464	38
Xylenes, Total	0.372	2.14	11.6	11.5	2540	2520	1	10.0-160	V	V	0.866	38
(S) Toluene-d8					99.7	97.3		75.0-131				
(S) 4-Bromofluorobenzene					118	96.1		67.0-138				
(S) 1,2-Dichloroethane-d4					98.5	97.9		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

L1283204-05,06,07,08,09,10,11,12

Method Blank (MB)

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

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

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

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

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

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

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

Method Blank (MB)

(MB) R3593609-3 11/13/20 11:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	104			75.0-131
(S) 4-Bromofluorobenzene	104			67.0-138
(S) 1,2-Dichloroethane-d4	87.6			70.0-130

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

(LCS) R3593609-1 11/13/20 09:53 • (LCSD) R3593609-2 11/13/20 10:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Xylenes, Total	0.375	0.373	0.374	99.5	99.7	72.0-127			0.268	20
(S) Toluene-d8				103	100	75.0-131				
(S) 4-Bromofluorobenzene				103	102	67.0-138				
(S) 1,2-Dichloroethane-d4				87.7	87.3	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

L1283204-01,02,03,04,05,06,07,08,09,10,11,12

Method Blank (MB)

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

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

Laboratory Control Sample (LCS)

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

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

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

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

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

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

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

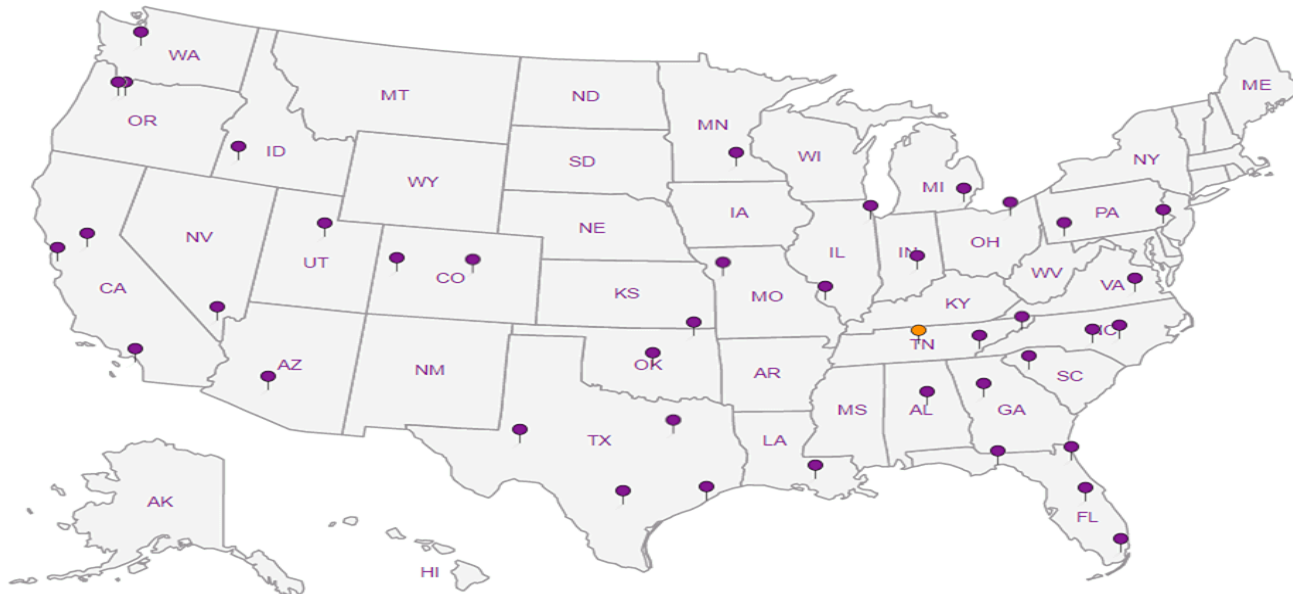
Third Party Federal Accreditations

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

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

Our Locations

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



ORIGINAL COPY

Released to Imaging: 4/24/2023 3:16:08 PM

WPA2 1.8 ± 0 = 1.8

RAD SCREEN: <0.5 mR/hr

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: <u>COPTETRA</u>		<u>11203204</u>	
Cooler Received/Opened On: <u>11 / 7 / 20</u>		Temperature: <u>1.8</u>	
Received By: <u>Billy Barras</u>			
Signature: <u>B. Barras</u>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?		<input checked="" type="checkbox"/>	
COC Signed / Accurate?		<input checked="" type="checkbox"/>	
Bottles arrive intact?		<input checked="" type="checkbox"/>	
Correct bottles used?		<input checked="" type="checkbox"/>	
Sufficient volume sent?		<input checked="" type="checkbox"/>	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

APPENDIX F

NMSLO Seed Mixture Details



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

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

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

1RP-1530



December 17, 2020

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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface..... 2

How Soil Surveys Are Made.....5

Soil Map..... 8

 Soil Map.....9

 Legend.....10

 Map Unit Legend..... 11

 Map Unit Descriptions.....11

 Lea County, New Mexico..... 13

 KM—Kermit soils and Dune land, 0 to 12 percent slopes..... 13

 KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes..... 14

 SE—Simona fine sandy loam, 0 to 3 percent slopes..... 16

References..... 18

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

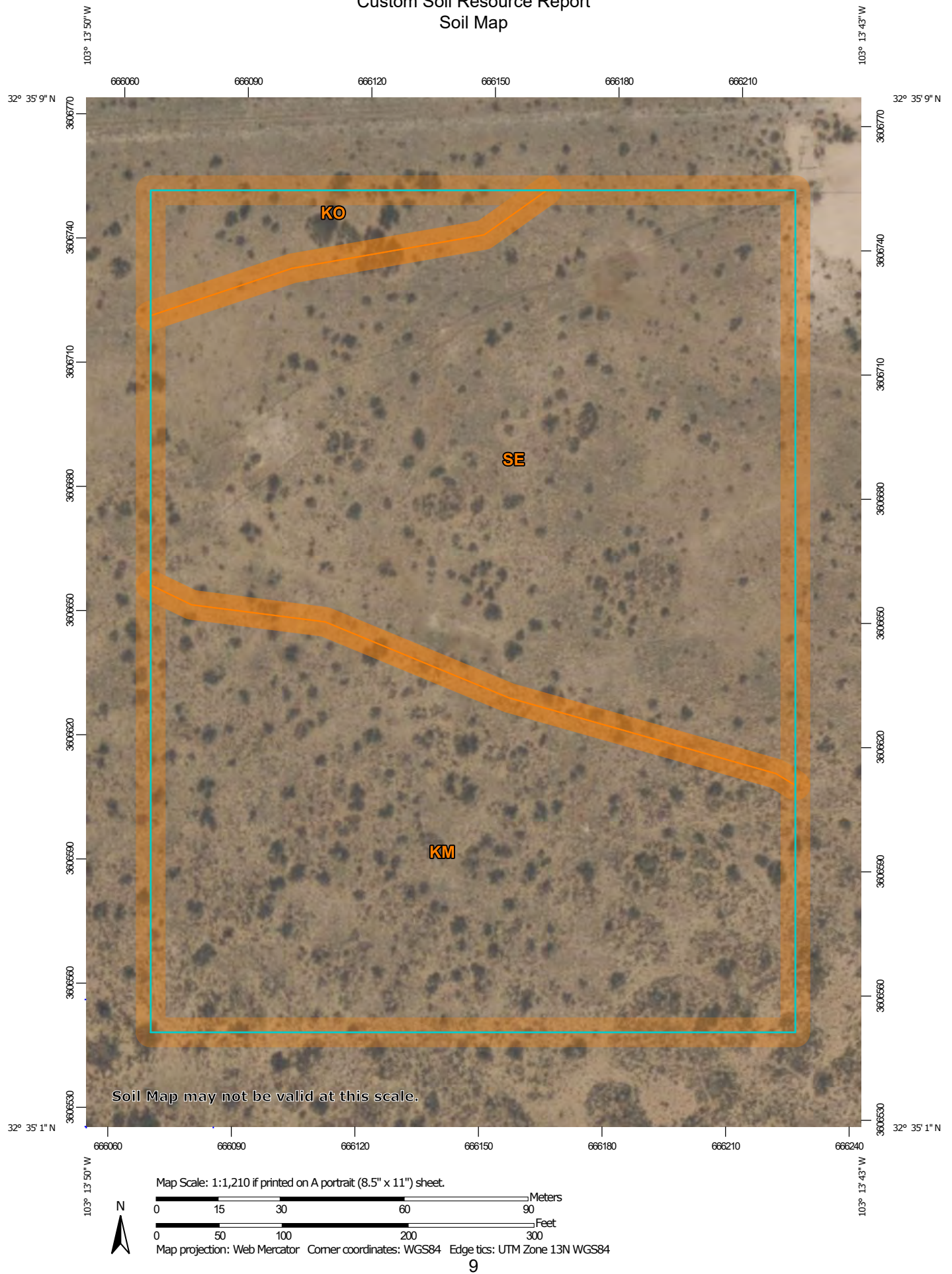
Custom Soil Resource Report

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

Soil Map

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


Custom Soil Resource Report
Soil Map



Custom Soil Resource Report


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

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

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit soils and Dune land, 0 to 12 percent slopes	3.3	41.7%
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	0.4	5.1%
SE	Simona fine sandy loam, 0 to 3 percent slopes	4.2	53.2%
Totals for Area of Interest		7.9	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

Custom Soil Resource Report

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.

Custom Soil Resource Report

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

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

Map Unit Composition

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

Description of Kermit**Setting**

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

Typical profile

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

Properties and qualities

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

Interpretive groups

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

Custom Soil Resource Report

Description of Dune Land**Setting***Landform:* Dunes*Landform position (two-dimensional):* Shoulder, backslope, footslope*Landform position (three-dimensional):* Side slope*Down-slope shape:* Convex, linear, concave*Across-slope shape:* Convex**Typical profile***A - 0 to 6 inches:* fine sand*C - 6 to 60 inches:* fine sand**Interpretive groups***Land capability classification (irrigated):* None specified*Land capability classification (nonirrigated):* 8e*Hydrologic Soil Group:* A*Hydric soil rating:* No**Minor Components****Palomas***Percent of map unit:* 3 percent*Ecological site:* R042XC003NM - Loamy Sand*Hydric soil rating:* No**Pyote***Percent of map unit:* 3 percent*Ecological site:* R042XC003NM - Loamy Sand*Hydric soil rating:* No**Wink***Percent of map unit:* 2 percent*Ecological site:* R042XC003NM - Loamy Sand*Hydric soil rating:* No**Maljamar***Percent of map unit:* 2 percent*Ecological site:* R042XC003NM - Loamy Sand*Hydric soil rating:* No**KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes****Map Unit Setting***National map unit symbol:* 2tw43*Elevation:* 2,500 to 4,800 feet*Mean annual precipitation:* 14 to 16 inches*Mean annual air temperature:* 57 to 63 degrees F*Frost-free period:* 180 to 220 days*Farmland classification:* Not prime farmland

Custom Soil Resource Report

Map Unit Composition

Kimbrough, dry, and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough, Dry**Setting**

Landform: Plains, playa rims

Down-slope shape: Linear, convex

Across-slope shape: Linear, concave

Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam

Bw - 3 to 10 inches: loam

Bkkm1 - 10 to 16 inches: cemented material

Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 4 to 18 inches to petrocalcic

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 95 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R077DY049TX - Very Shallow 12-17" PZ

Hydric soil rating: No

Minor Components**Eunice**

Percent of map unit: 10 percent

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Convex

Ecological site: R077DY049TX - Very Shallow 12-17" PZ

Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent

Landform: Plains, playa rims

Down-slope shape: Linear, convex

Across-slope shape: Linear

Custom Soil Resource Report

Ecological site: R077DY049TX - Very Shallow 12-17" PZ

Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R077DY038TX - Clay Loam 12-17" PZ

Hydric soil rating: No

SE—Simona fine sandy loam, 0 to 3 percent slopes**Map Unit Setting**

National map unit symbol: dmr2

Elevation: 3,000 to 4,200 feet

Mean annual precipitation: 10 to 15 inches

Mean annual air temperature: 58 to 62 degrees F

Frost-free period: 190 to 205 days

Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona**Setting**

Landform: Plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Calcareous eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sandy loam

Bk - 8 to 16 inches: gravelly fine sandy loam

Bkm - 16 to 26 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 7 to 20 inches to petrocalcic

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 35 percent

Custom Soil Resource Report

Gypsum, maximum content: 1 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 2.0

Available water capacity: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): 6s

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R042XC002NM - Shallow Sandy

Hydric soil rating: No

Minor Components

Kimbrough

Percent of map unit: 8 percent

Ecological site: R077CY037TX - Very Shallow 16-21" PZ

Hydric soil rating: No

Lea

Percent of map unit: 7 percent

Ecological site: R077CY028TX - Limy Upland 16-21" PZ

Hydric soil rating: No

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

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

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

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

VNS = Variety Not Stated, PLS = Pure Live Seed

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



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 208283

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 208283
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
jharimon	Workplan/Remediation Plan is approved with the following conditions: Please make sure the floor confirmation samples are delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The request for variance for an alternative confirmation sampling plan is approved with conditions. Confirmation sidewall and floor samples will be representative of no more than approximately 400 square ft of excavated area.	4/24/2023