BACKFILL REQUEST AND REMEDIATION SUMMARY REPORT

Plains Pipeline, LP.
COG SRO State Com No. 029H
Eddy County, New Mexico
Unit Letter "C", Section 3, Township 26 South, Range 28 East
Latitude 32.07839° North, Longitude 104.07831° West
NMOCD Reference # 2RP-4814

Prepared For:

Plains Pipeline, LP.
333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared By:

2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa, Texas 79764

September 2018

Rebecca Blake
Staff Scientist

Matthew Green, P.G.
President

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INTRODUCTION

2M Environmental Services, LLC. (2M), on behalf of Plains Pipeline L.P. (Plains) has prepared this Backfill Request and Remediation Summary Report for the Release Site known as COG SRO State Com No. 029H. The legal description of the Release Site is Unit Letter "C", Section 3, Township 26 South, Range 28 East, in Eddy County, New Mexico. The subject property is owned by The New Mexico State Land Office (NMSLO). The Release Site GPS coordinates are 32.07839º North and 104.07831º West. Please reference Figure 1 for the Site Location Map and Figure 2 for the Site Details and Confirmation Soil Sample Location Map.

On June 12, 2018, Plains discovered a half (1/2) inch valve had failed coming from the discharge relief valve resulting in the release. Approximately nine (9) barrels of crude oil were released with approximately five (5) barrels recovered, resulting in a net loss of approximately four (4) barrels of crude oil. On June 13, 2018, Plains filed a *Release Notification and Corrective Action Form* (Form C-141) with the New Mexico Oil Conservation Division (NMOCD) and NMSLO documenting the release. The Form C-141 is provided as Appendix D. Photographic documentation for the site are provided as Appendix A.

NMOCD SITE CLASSIFICATION

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 3, Township 26 South, Range 28 East. A reference map utilized by the NMOCD Artisa District Office, indicates groundwater should be encountered at approximately twenty-five (25) feet below ground surface (bgs). Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion. No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one thousand (1,000) feet of the release. Based on the NMOCD site classification system, twenty (20) points will be assigned to the SRO State Com No. 029H Release Site as a result of this criterion. Based on this score, the soil remediation levels for a site with a ranking score of forty (20) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 100 mg/Kg (ppm)
- Chloride – 600 mg/Kg (ppm)

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On June 20, 2018, 2M commenced excavation activities at the Release Site. Excavation activities were conducted in a manner that protects the integrity of the production equipment. 2M hand spotted around all surface equipment and excavated by hand all impacted material within two (2) feet of any production equipment. Excavated soil was stockpiled on plastic to the east of the excavation, pending final disposal. 2M, on behalf of Plains, collected five (5) preliminary soil samples (AH-1 @ 21", AH-2 @ 10", AH-2B @ 31", AH-3 @ 54", and AH-4 @ 21") from the impacted area. Soil samples were submitted to the laboratory and analyzed for benzene, toluene,

ethylbenzene, and xylene (BTEX) using EPA Method SW 846-8021B, Total Petroleum Hydrocarbons (TPH) using EPA Method SW 846-8015M, and chloride using EPA Method E 300.0. A review of laboratory analytical results indicated additional vertical delineation activities were necessary for TPH. Please reference Figure 2 for site details and soil sampling locations.

On June 26, 2018, six (6) soil samples (BH-1 @ 21", BH-2 @ 10", BH-3 @ 54", WSW-1 @ 2', NSW-1 @ 2', and BH-4 @ 21") were collected from the excavated area. Soil samples were submitted to the laboratory and analyzed for BTEX and TPH. A review of laboratory analytical results indicated additional excavation activities were necessary in the area represented by soil samples BH-2 @ 10", BH-3 @ 54", NSW-1 @ 2' and BH-4 @ 21". Please reference Figure 2 for site details and soil sampling locations.

On July 20, 2018, after additional excavation activities, four (4) soil samples (NSW-1 @ 43", BH-2 @ 42", BH-3 @ 60", and BH-4 @ 24") were collected from the excavated area and submitted to the laboratory for BTEX and TPH analysis. Please reference Figure 2 for site details and soil sampling locations. A review of laboratory analytical results indicated additional excavation activities were necessary in the area represented by soil sample BH-2 @ 42".

On August 14, 2018, after additional excavation activities, one (1) soil sample (BH-2 @ 52") was collected from the excavated area and submitted to the laboratory for BTEX and TPH analysis. Please reference Figure 2 for site details and soil sampling locations. A review of laboratory analytical results indicated all collected soil samples were below applicable NMOCD limits.

Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Analytical reports are provided as Appendix B.

SOIL DISPOSAL AND BACKFILL REQUEST

On September 12, 2018, Plains transported eight-five (85) cubic yards of material to Lea Land, LLC. Landfill (NMOCD Permit #: NM-01-035) located on Highway 62 near Carlsbad New Mexico for disposal. Pending NMOCD and NMSLO approval, the Release Site will then be backfilled with non-impacted soil purchased from Lea Land. On completion of backfilling activities, the impacted area will be contoured to fit the surrounding area and 2M will prepare a Site Closure Request for submittal to NMOCD and NMSLO.

LIMITATIONS

2M has prepared this Backfill Request and Remediation Summary Report to the best of its ability. No other warranty, expressed or implied, is made or intended. 2M has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. 2M has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. 2M has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. 2M also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains Pipeline L.P.. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of 2M and/or Plains Pipeline L.P..

DISTRIBUTION

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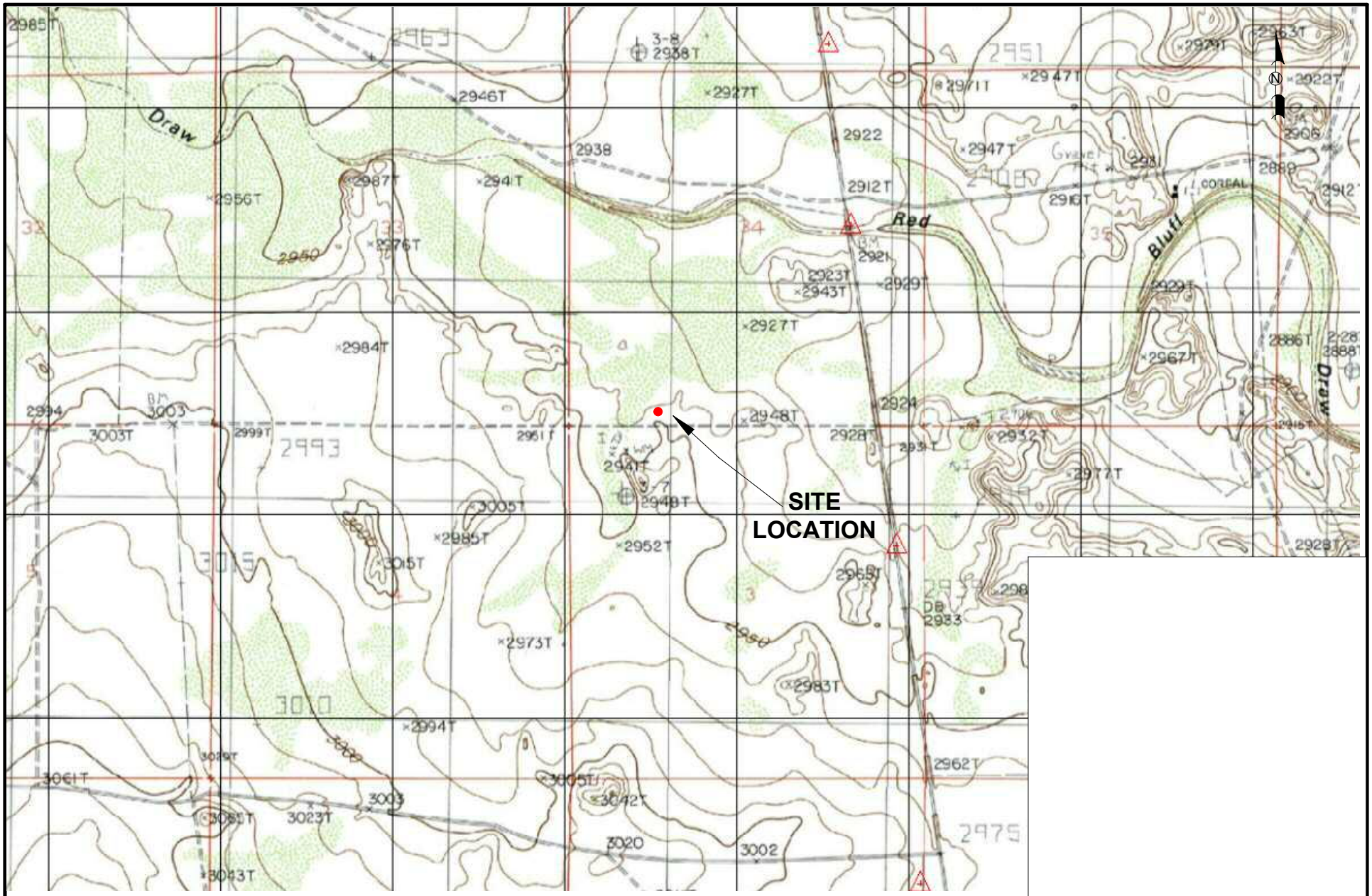


LEGEND:

Surface Water

Native Grassland

2000 1000 0 1000 2000

Distance in Feet

Figure 1

Site Location Map

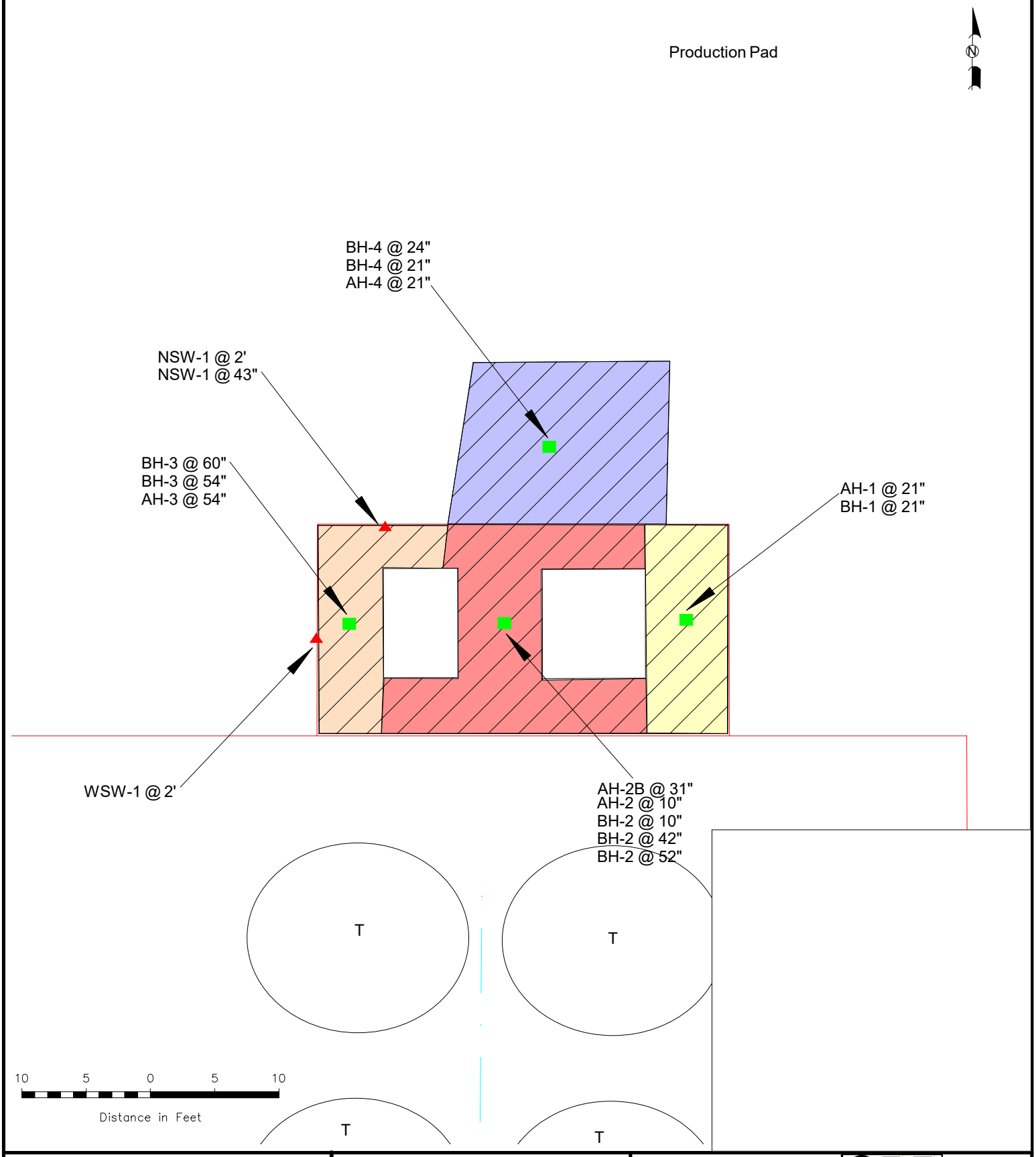
Plains Marketing

COG SRO State COM No. 029H

Eddy County, NM

Scale: 1" = 2000'
CAD By: NPC
Checked By: MG
Date: August 30, 2018
Lat. N 32.07839°, Long. W 104.07831°

2M Environmental Services, LLC



LEGEND:

- Confirmation Grab Soil Sample Location
- Side Wall Soil Sample Location
- Excavated Area to 21" bgs
- Excavated Area to 24" bgs
- Excavated Area to 52" bgs
- Excavated Area to 60" bgs

Figure 2
Site Details & Confirmation
Soil Sample Location Map
Plains Marketing
COG SRO State COM No. 029H
Eddy County, NM

Scale:	1" = 10'
CAD By:	NPC
Checked By:	MG
Draft:	August 30, 2018
Lat. N 32.07839° Long. W 104.07831°	

2M Environmental Services, LLC

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

Plains All American Pipeline

COG SRO STATE COM #029H RELEASE SITE

EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021B						METHOD: SW 8015M					E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
Limits		**10 mg/Kg**						**50 mg/Kg**				**100 mg/Kg**	**600 mg/Kg**
Initial Delineation Samples*													
AH-1 @ 21"	6/20/2018	ND	ND	0.203	ND	ND	ND	0.203	ND	683	90.0	**773.0**	58.1
AH-2 @ 10"	6/20/2018	ND	ND	ND	0.449	ND	ND	0.449	150	1,770	224	**2,144**	27.9
AH-2B @ 31"	6/20/2018	0.441	7.13	1.72	29.0	11.1	40.1	49.391	6,810	16,600	2,250	**25,660**	1.51
AH-3 @ 54"	6/20/2018	0.00146	ND	ND	ND	ND	ND	0.00146	ND	1,410	229	**1,639**	65.7
AH-4 @ 21"	6/20/2018	ND	ND	ND	ND	ND	ND	ND	76.4	1,060	171	**1,307.4**	55.9
Excavation samples**													
BH-1 @ 21"	6/26/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
BH-2 @ 10"	6/26/2018	ND	ND	ND	ND	ND	ND	ND	77.6	2,350	345	**2,773**	-
BH-3 @ 54"	6/26/2018	ND	ND	ND	ND	ND	ND	ND	46.8	2,530	401	**2,977.8**	-
WSW-1 @ 2'	6/26/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
NSW-1 @ 2'	6/26/2018	ND	ND	ND	ND	ND	ND	ND	41.1	3,920	584	**4,545.1**	-
BH-4 @ 21"	6/26/2018	ND	ND	ND	ND	ND	ND	ND	ND	1,250	161	**1,411**	-
Additional Excavation Samples													
NSW-1 @ 43"	7/20/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
BH-2 @ 42"	7/20/2018	ND	ND	ND	ND	ND	ND	ND	ND	248	59.1	**307.1**	-
BH-3 @ 60"	7/20/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
BH-4 @ 24"	7/20/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Additional Excavation Sample													
BH-2 @ 52"	8/14/2018	ND	ND	ND	ND	ND	ND	ND	ND	34.9	ND	34.9	-
Excavated Soil Sample													
SP-1	6/26/2018	ND	0.263	0.239	2.37	0.792	3.162	3.664	1,530	12,600	1,930	**16,060**	-

*** AH samples were initial delineation samples collected prior to excavation activities and represent a range of approximately three (3) inches with the final depth indicating by sample ID depth.**

**** Excavation samples were collected prior to receiving Initial Delineation Labortory Sample Results.**

AH = Auger Hole Sample
BH = Bottomhole Sample
NSW = North Side Wall Sample
WSW = West Side Wall Sample

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green

2M Environmental Services, LLC.

1219 W. University Blvd.

Odessa, TEXAS 79764

Project: Plains COG SRO State COM 029H Release

Project Number: SRM# TBD

Location: Eddy County, NM

Lab Order Number: 8F26001

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 07/04/18

2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa TEXAS, 79764

Project: Plains COG SRO State COM 029H Release
Project Number: SRM# TBD
Project Manager: Matt Green

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ 21"	8F26001-01	Soil	06/20/18 13:28	06-25-2018 17:10
AH-2 @ 10"	8F26001-02	Soil	06/20/18 13:25	06-25-2018 17:10
AH-2B @31"	8F26001-03	Soil	06/20/18 13:15	06-25-2018 17:10
AH-4 @ 21"	8F26001-04	Soil	06/20/18 13:43	06-25-2018 17:10
AH-3 @ 54"	8F26001-05	Soil	06/20/18 17:30	06-25-2018 17:10

AH-1 @ 21''

8F26001-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0211	mg/kg dry	20	P8G0311	07/03/18	07/03/18	EPA 8021B	
Toluene	ND	0.211	mg/kg dry	20	P8G0311	07/03/18	07/03/18	EPA 8021B	
Ethylbenzene	**0.203**	0.105	mg/kg dry	20	P8G0311	07/03/18	07/03/18	EPA 8021B	
Xylene (p/m)	ND	0.421	mg/kg dry	20	P8G0311	07/03/18	07/03/18	EPA 8021B	
Xylene (o)	ND	0.211	mg/kg dry	20	P8G0311	07/03/18	07/03/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*99.9 %*	*75-125*		*P8G0311*	*07/03/18*	*07/03/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*99.6 %*	*75-125*		*P8G0311*	*07/03/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**58.1**	1.05	mg/kg dry	1	P8F2806	06/28/18	06/29/18	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P8F2702	06/27/18	06/27/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P8F2704	06/27/18	06/27/18	TPH 8015M	
>C12-C28	**683**	26.3	mg/kg dry	1	P8F2704	06/27/18	06/27/18	TPH 8015M	
>C28-C35	**90.0**	26.3	mg/kg dry	1	P8F2704	06/27/18	06/27/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.6 %*	*70-130*		*P8F2704*	*06/27/18*	*06/27/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*P8F2704*	*06/27/18*	*06/27/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**773**	26.3	mg/kg dry	1	[CALC]	06/27/18	06/27/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H Release	Fax:
1219 W. University Blvd.	Project Number: SRM# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

AH-2 @ 10''

8F26001-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0215	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Toluene	ND	0.215	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Ethylbenzene	ND	0.108	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (p/m)	**0.449**	0.430	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (o)	ND	0.215	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.3 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.2 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**27.9**	1.08	mg/kg dry	1	P8F2806	06/28/18	06/29/18	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P8F2702	06/27/18	06/27/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**150**	26.9	mg/kg dry	1	P8F2704	06/27/18	06/27/18	TPH 8015M	
>C12-C28	**1770**	26.9	mg/kg dry	1	P8F2704	06/27/18	06/27/18	TPH 8015M	
>C28-C35	**224**	26.9	mg/kg dry	1	P8F2704	06/27/18	06/27/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.4 %*	*70-130*		*P8F2704*	*06/27/18*	*06/27/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P8F2704*	*06/27/18*	*06/27/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2140**	26.9	mg/kg dry	1	[CALC]	06/27/18	06/27/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H Release	Fax:
1219 W. University Blvd.	Project Number: SRM# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

AH-2B @31"

8F26001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	**0.411**	0.211	mg/kg dry	200	P8G0311	07/03/18	07/04/18	EPA 8021B	
Toluene	**7.13**	2.11	mg/kg dry	200	P8G0311	07/03/18	07/04/18	EPA 8021B	
Ethylbenzene	**1.72**	1.05	mg/kg dry	200	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (p/m)	**29.0**	4.21	mg/kg dry	200	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (o)	**11.1**	2.11	mg/kg dry	200	P8G0311	07/03/18	07/04/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*70.6 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	*S-01*
Surrogate: 4-Bromofluorobenzene		*65.5 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	*S-01*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1.51**	1.05	mg/kg dry	1	P8F2806	06/28/18	06/29/18	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P8F2702	06/27/18	06/27/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**6810**	263	mg/kg dry	10	P8F2709	06/27/18	06/28/18	TPH 8015M	
>C12-C28	**16600**	263	mg/kg dry	10	P8F2709	06/27/18	06/28/18	TPH 8015M	
>C28-C35	**2250**	263	mg/kg dry	10	P8F2709	06/27/18	06/28/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*130 %*	*70-130*		*P8F2709*	*06/27/18*	*06/28/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*121 %*	*70-130*		*P8F2709*	*06/27/18*	*06/28/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**25600**	263	mg/kg dry	10	[CALC]	06/27/18	06/28/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H Release	Fax:
1219 W. University Blvd.	Project Number: SRM# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

AH-4 @ 21''

8F26001-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0211	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Toluene	ND	0.211	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Ethylbenzene	ND	0.105	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (p/m)	ND	0.421	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (o)	ND	0.211	mg/kg dry	20	P8G0311	07/03/18	07/04/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*94.2 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*113 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**55.9**	1.05	mg/kg dry	1	P8F2807	06/28/18	06/29/18	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P8F2702	06/27/18	06/27/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**76.4**	26.3	mg/kg dry	1	P8F2709	06/27/18	06/28/18	TPH 8015M	
>C12-C28	**1060**	26.3	mg/kg dry	1	P8F2709	06/27/18	06/28/18	TPH 8015M	
>C28-C35	**171**	26.3	mg/kg dry	1	P8F2709	06/27/18	06/28/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		*P8F2709*	*06/27/18*	*06/28/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*119 %*	*70-130*		*P8F2709*	*06/27/18*	*06/28/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1310**	26.3	mg/kg dry	1	[CALC]	06/27/18	06/28/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H Release	Fax:
1219 W. University Blvd.	Project Number: SRM# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

AH-3 @ 54"

8F26001-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00146**	0.00103	mg/kg dry	1	P8G0311	07/03/18	07/04/18	EPA 8021B	
Toluene	ND	0.0103	mg/kg dry	1	P8G0311	07/03/18	07/04/18	EPA 8021B	
Ethylbenzene	ND	0.00515	mg/kg dry	1	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (p/m)	ND	0.0206	mg/kg dry	1	P8G0311	07/03/18	07/04/18	EPA 8021B	
Xylene (o)	ND	0.0103	mg/kg dry	1	P8G0311	07/03/18	07/04/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*103 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*98.2 %*	*75-125*		*P8G0311*	*07/03/18*	*07/04/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**65.7**	1.03	mg/kg dry	1	P8F2807	06/28/18	06/29/18	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P8F2702	06/27/18	06/27/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P8F2709	06/27/18	06/28/18	TPH 8015M	
>C12-C28	**1410**	25.8	mg/kg dry	1	P8F2709	06/27/18	06/28/18	TPH 8015M	
>C28-C35	**229**	25.8	mg/kg dry	1	P8F2709	06/27/18	06/28/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		*P8F2709*	*06/27/18*	*06/28/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*122 %*	*70-130*		*P8F2709*	*06/27/18*	*06/28/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1630**	25.8	mg/kg dry	1	[CALC]	06/27/18	06/28/18	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G0311 - General Preparation (GC)										
Blank (P8G0311-BLK1)				Prepared & Analyzed: 07/02/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0562*		*"*	*0.0600*		*93.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0575*		*"*	*0.0600*		*95.8*	*75-125*			
LCS (P8G0311-BS1)				Prepared & Analyzed: 07/02/18						
Benzene	0.108	0.00100	mg/kg wet	0.100		108	70-130			
Toluene	0.0963	0.0100	"	0.100		96.3	70-130			
Ethylbenzene	0.101	0.00500	"	0.100		101	70-130			
Xylene (p/m)	0.212	0.0200	"				70-130			
Xylene (o)	0.101	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0637*		*"*	*0.0600*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0613*		*"*	*0.0600*		*102*	*75-125*			
LCS Dup (P8G0311-BSD1)				Prepared & Analyzed: 07/02/18						
Benzene	0.109	0.00100	mg/kg wet	0.100		109	70-130	0.894	20	
Toluene	0.0984	0.0100	"	0.100		98.4	70-130	2.24	20	
Ethylbenzene	0.105	0.00500	"	0.100		105	70-130	4.63	20	
Xylene (p/m)	0.207	0.0200	"				70-130		20	
Xylene (o)	0.105	0.0100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0632*		*"*	*0.0600*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0638*		*"*	*0.0600*		*106*	*75-125*			
Matrix Spike (P8G0311-MS1)	**Source: 8F26001-05**			Prepared: 07/03/18 Analyzed: 07/04/18						
Benzene	0.0129	0.00103	mg/kg dry	0.103	0.00146	11.1	80-120			QM-07
Toluene	0.00289	0.0103	"	0.103	0.00493	NR	80-120			QM-07
Ethylbenzene	0.00532	0.00515	"	0.103	0.00161	3.60	80-120			QM-07
Xylene (p/m)	0.0217	0.0206	"		0.00562		80-120			
Xylene (o)	0.0112	0.0103	"		0.00287		80-120			
Surrogate: 4-Bromofluorobenzene	*0.0721*		*"*	*0.0619*		*117*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0656*		*"*	*0.0619*		*106*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G0311 - General Preparation (GC)										
Matrix Spike Dup (P8G0311-MSD1)	**Source: 8F26001-05**			Prepared: 07/03/18 Analyzed: 07/04/18						
Benzene	0.00557	0.00103	mg/kg dry	0.103	0.00146	3.98	80-120	94.1	20	QM-07
Toluene	0.00210	0.0103	"	0.103	0.00493	NR	80-120	NR	20	QM-07
Ethylbenzene	0.00469	0.00515	"	0.103	0.00161	2.99	80-120	18.5	20	QM-07
Xylene (p/m)	0.0193	0.0206	"		0.00562		80-120		20	
Xylene (o)	0.0110	0.0103	"		0.00287		80-120		20	
Surrogate: 1,4-Difluorobenzene	*0.0665*		*"*	*0.0619*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0757*		*"*	*0.0619*		*122*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8F2702 - * DEFAULT PREP *** **										
Blank (P8F2702-BLK1)				Prepared & Analyzed: 06/27/18						
% Moisture	ND	0.1	%							
Duplicate (P8F2702-DUP1)	**Source: 8F25022-03**			Prepared & Analyzed: 06/27/18						
% Moisture	ND	0.1	%		ND				20	
Duplicate (P8F2702-DUP2)	**Source: 8F26003-10**			Prepared & Analyzed: 06/27/18						
% Moisture	ND	0.1	%		ND				20	
Batch P8F2806 - * DEFAULT PREP *** **										
LCS (P8F2806-BS1)				Prepared & Analyzed: 06/28/18						
Chloride	397	1.00	mg/kg wet	400		99.3	80-120			
LCS Dup (P8F2806-BSD1)				Prepared & Analyzed: 06/28/18						
Chloride	395	1.00	mg/kg wet	400		98.7	80-120	0.561	20	
Duplicate (P8F2806-DUP1)	**Source: 8F25020-03**			Prepared & Analyzed: 06/28/18						
Chloride	ND	1.00	mg/kg dry		ND				20	
Duplicate (P8F2806-DUP2)	**Source: 8F25022-04**			Prepared: 06/28/18 Analyzed: 06/29/18						
Chloride	ND	1.00	mg/kg dry		ND				20	
Matrix Spike (P8F2806-MS1)	**Source: 8F25020-03**			Prepared & Analyzed: 06/28/18						
Chloride	945	1.00	mg/kg dry	1000	ND	94.5	80-120			
Batch P8F2807 - * DEFAULT PREP *** **										
Blank (P8F2807-BLK1)				Prepared: 06/28/18 Analyzed: 06/29/18						
Chloride	ND	1.00	mg/kg wet							

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8F2807 - * DEFAULT PREP *** **										
LCS (P8F2807-BS1)				Prepared: 06/28/18 Analyzed: 06/29/18						
Chloride	415	1.00	mg/kg wet	400		104	80-120			
LCS Dup (P8F2807-BSD1)				Prepared: 06/28/18 Analyzed: 06/29/18						
Chloride	411	1.00	mg/kg wet	400		103	80-120	0.891	20	
Duplicate (P8F2807-DUP1)		**Source: 8F26001-04**		Prepared: 06/28/18 Analyzed: 06/29/18						
Chloride	55.6	1.05	mg/kg dry		55.9			0.567	20	
Duplicate (P8F2807-DUP2)		**Source: 8F27008-03**		Prepared: 06/28/18 Analyzed: 06/29/18						
Chloride	5530	29.4	mg/kg dry		5520			0.272	20	
Matrix Spike (P8F2807-MS1)		**Source: 8F26001-04**		Prepared: 06/28/18 Analyzed: 06/29/18						
Chloride	1060	1.05	mg/kg dry	1050	55.9	95.2	80-120			

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8F2704 - General Preparation (GC)										
Blank (P8F2704-BLK1)				Prepared & Analyzed: 06/27/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*93.6*		*"*	*100*		*93.6*	*70-130*			
Surrogate: o-Terphenyl	*55.0*		*"*	*50.0*		*110*	*70-130*			
LCS (P8F2704-BS1)				Prepared & Analyzed: 06/27/18						
C6-C12	940	25.0	mg/kg wet	1000		94.0	75-125			
>C12-C28	1050	25.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	*123*		*"*	*100*		*123*	*70-130*			
Surrogate: o-Terphenyl	*52.7*		*"*	*50.0*		*105*	*70-130*			
LCS Dup (P8F2704-BSD1)				Prepared & Analyzed: 06/27/18						
C6-C12	922	25.0	mg/kg wet	1000		92.2	75-125	1.94	20	
>C12-C28	1040	25.0	"	1000		104	75-125	0.465	20	
Surrogate: 1-Chlorooctane	*123*		*"*	*100*		*123*	*70-130*			
Surrogate: o-Terphenyl	*51.9*		*"*	*50.0*		*104*	*70-130*			
Matrix Spike (P8F2704-MS1)	**Source: 8F25021-02**			Prepared & Analyzed: 06/27/18						
C6-C12	808	25.3	mg/kg dry	1010	ND	80.0	75-125			
>C12-C28	924	25.3	"	1010	22.8	89.2	75-125			
Surrogate: 1-Chlorooctane	*119*		*"*	*101*		*118*	*70-130*			
Surrogate: o-Terphenyl	*48.3*		*"*	*50.5*		*95.7*	*70-130*			
Matrix Spike Dup (P8F2704-MSD1)	**Source: 8F25021-02**			Prepared & Analyzed: 06/27/18						
C6-C12	850	25.3	mg/kg dry	1010	ND	84.2	75-125	5.02	20	
>C12-C28	957	25.3	"	1010	22.8	92.5	75-125	3.59	20	
Surrogate: 1-Chlorooctane	*118*		*"*	*101*		*117*	*70-130*			
Surrogate: o-Terphenyl	*51.2*		*"*	*50.5*		*101*	*70-130*			

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8F2709 - General Preparation (GC)										
Blank (P8F2709-BLK1)				Prepared & Analyzed: 06/27/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*106*		*"*	*100*		*106*	*70-130*			
Surrogate: o-Terphenyl	*57.3*		*"*	*50.0*		*115*	*70-130*			
LCS (P8F2709-BS1)				Prepared & Analyzed: 06/27/18						
C6-C12	1220	25.0	mg/kg wet	1000		122	75-125			
>C12-C28	1250	25.0	"	1000		125	75-125			
Surrogate: 1-Chlorooctane	*127*		*"*	*100*		*127*	*70-130*			
Surrogate: o-Terphenyl	*63.2*		*"*	*50.0*		*126*	*70-130*			
LCS Dup (P8F2709-BSD1)				Prepared & Analyzed: 06/27/18						
C6-C12	1210	25.0	mg/kg wet	1000		121	75-125	0.665	20	
>C12-C28	1210	25.0	"	1000		121	75-125	3.21	20	
Surrogate: 1-Chlorooctane	*129*		*"*	*100*		*129*	*70-130*			
Surrogate: o-Terphenyl	*64.4*		*"*	*50.0*		*129*	*70-130*			
Matrix Spike (P8F2709-MS1)	**Source: 8F27010-05**			Prepared: 06/27/18 Analyzed: 06/28/18						
C6-C12	1090	28.4	mg/kg dry	1140	22.3	94.1	75-125			
>C12-C28	1180	28.4	"	1140	ND	104	75-125			
Surrogate: 1-Chlorooctane	*118*		*"*	*114*		*104*	*70-130*			
Surrogate: o-Terphenyl	*60.7*		*"*	*56.8*		*107*	*70-130*			
Matrix Spike Dup (P8F2709-MSD1)	**Source: 8F27010-05**			Prepared: 06/27/18 Analyzed: 06/28/18						
C6-C12	1130	28.4	mg/kg dry	1140	22.3	97.4	75-125	3.44	20	
>C12-C28	1180	28.4	"	1140	ND	104	75-125	0.0249	20	
Surrogate: 1-Chlorooctane	*120*		*"*	*114*		*106*	*70-130*			
Surrogate: o-Terphenyl	*69.3*		*"*	*56.8*		*122*	*70-130*			

Notes and Definitions

S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 7/4/2018

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: Plains COG SRO State COM 029H Releas
Project #: SRS #:
Project Loc: Eddy County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only) ORDER #: 8F26001

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 8015B	TPH: TX 1005 Ext TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	AH-1 @ 21"			6/20/2018	1328		1	x								S	X								X			X				X
-02	AH-2 @ 10"			6/20/2018	1325		1	x								S	X								X			X				X
-03	AH-2B @ 31"			6/20/2018	1315		1	x								S	X								X			X				X
-04	AH-4 @ 21"			6/20/2018	1343		1	x								S	X								X			X				X
-05	AH-3 @ 54"			6/20/2018	1730		1	x								S	X								X			X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Matthew Green	6-25-18	16:11		6-25-18	16:11
	6-25-18	1710			
			Received by PBEL:	6-25-18	1710

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?		N
Labels on container(s)		N
Custody seals on container(s)		N
Custody seals on cooler(s)		N
Sample Hand Delivered		N
by Sampler/Client Rep. ?		N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 4.0 °C
Adjusted: 4.4 °C Factor 0.4 LL

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green

2M Environmental Services, LLC.

1219 W. University Blvd.

Odessa, TEXAS 79764

Project: Plains COG SRO State COM 029H

Project Number: SRS# TBD

Location: Eddy County, NM

Lab Order Number: 8G02009

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 07/03/18

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-1	8G02009-01	Soil	06/26/18 13:00	07-02-2018 11:41

2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa TEXAS, 79764

Project: Plains COG SRO State COM 029H
Project Number: SRS# TBD
Project Manager: Matt Green

Fax:

SP-1

8G02009-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.0206	mg/kg dry	20	P8G0311	07/02/18	07/03/18	EPA 8021B	
Toluene	**0.263**	0.206	mg/kg dry	20	P8G0311	07/02/18	07/03/18	EPA 8021B	
Ethylbenzene	**0.239**	0.103	mg/kg dry	20	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (p/m)	**2.37**	0.412	mg/kg dry	20	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (o)	**0.792**	0.206	mg/kg dry	20	P8G0311	07/02/18	07/03/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*69.4 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*80.8 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**3.0**	0.1	%	1	P8G0302	07/03/18	07/03/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**1530**	129	mg/kg dry	5	P8F2908	07/02/18	07/03/18	TPH 8015M	
>C12-C28	**12600**	129	mg/kg dry	5	P8F2908	07/02/18	07/03/18	TPH 8015M	
>C28-C35	**1930**	129	mg/kg dry	5	P8F2908	07/02/18	07/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*127 %*	*70-130*		*P8F2908*	*07/02/18*	*07/03/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*118 %*	*70-130*		*P8F2908*	*07/02/18*	*07/03/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**16100**	129	mg/kg dry	5	[CALC]	07/02/18	07/03/18	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G0311 - General Preparation (GC)										
Blank (P8G0311-BLK1)				Prepared & Analyzed: 07/02/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0562*		*"*	*0.0600*		*93.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0575*		*"*	*0.0600*		*95.8*	*75-125*			
LCS (P8G0311-BS1)				Prepared & Analyzed: 07/02/18						
Benzene	0.108	0.00100	mg/kg wet	0.100		108	70-130			
Toluene	0.0963	0.0100	"	0.100		96.3	70-130			
Ethylbenzene	0.101	0.00500	"	0.100		101	70-130			
Xylene (p/m)	0.212	0.0200	"				70-130			
Xylene (o)	0.101	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0637*		*"*	*0.0600*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0613*		*"*	*0.0600*		*102*	*75-125*			
LCS Dup (P8G0311-BSD1)				Prepared & Analyzed: 07/02/18						
Benzene	0.109	0.00100	mg/kg wet	0.100		109	70-130	0.894	20	
Toluene	0.0984	0.0100	"	0.100		98.4	70-130	2.24	20	
Ethylbenzene	0.105	0.00500	"	0.100		105	70-130	4.63	20	
Xylene (p/m)	0.207	0.0200	"				70-130		20	
Xylene (o)	0.105	0.0100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0632*		*"*	*0.0600*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0638*		*"*	*0.0600*		*106*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G0302 - * DEFAULT PREP *** **										
Blank (P8G0302-BLK1)				Prepared & Analyzed: 07/03/18						
% Moisture	ND	0.1	%							
Duplicate (P8G0302-DUP1)		**Source: 8G02007-01**		Prepared & Analyzed: 07/03/18						
% Moisture	13.0	0.1	%		13.0			0.00	20	
Duplicate (P8G0302-DUP2)		**Source: 8G02016-02**		Prepared & Analyzed: 07/03/18						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P8G0302-DUP3)		**Source: 8G02016-29**		Prepared & Analyzed: 07/03/18						
% Moisture	5.0	0.1	%		5.0			0.00	20	
Duplicate (P8G0302-DUP4)		**Source: 8G02016-35**		Prepared & Analyzed: 07/03/18						
% Moisture	2.0	0.1	%		2.0			0.00	20	

2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa TEXAS, 79764

Project: Plains COG SRO State COM 029H
Project Number: SRS# TBD
Project Manager: Matt Green

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8F2908 - General Preparation (GC)										
Blank (P8F2908-BLK1)				Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*114*		*"*	*100*		*114*	*70-130*			
Surrogate: o-Terphenyl	*63.0*		*"*	*50.0*		*126*	*70-130*			
LCS (P8F2908-BS1)				Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1080	25.0	mg/kg wet	1000		108	75-125			
>C12-C28	1130	25.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	*111*		*"*	*100*		*111*	*70-130*			
Surrogate: o-Terphenyl	*66.4*		*"*	*50.0*		*133*	*70-130*			*S-GC*
LCS Dup (P8F2908-BSD1)				Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1030	25.0	mg/kg wet	1000		103	75-125	4.49	20	
>C12-C28	1080	25.0	"	1000		108	75-125	4.93	20	
Surrogate: 1-Chlorooctane	*105*		*"*	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*62.8*		*"*	*50.0*		*126*	*70-130*			
Matrix Spike (P8F2908-MS1)	**Source: 8F29004-02**			Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1020	26.0	mg/kg dry	1040	11.9	96.4	75-125			
>C12-C28	1070	26.0	"	1040	69.2	96.5	75-125			
Surrogate: 1-Chlorooctane	*118*		*"*	*104*		*114*	*70-130*			
Surrogate: o-Terphenyl	*63.4*		*"*	*52.1*		*122*	*70-130*			
Matrix Spike Dup (P8F2908-MSD1)	**Source: 8F29004-02**			Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1050	26.0	mg/kg dry	1040	11.9	99.8	75-125	3.54	20	
>C12-C28	1120	26.0	"	1040	69.2	100	75-125	4.01	20	
Surrogate: 1-Chlorooctane	*116*		*"*	*104*		*112*	*70-130*			
Surrogate: o-Terphenyl	*61.2*		*"*	*52.1*		*117*	*70-130*			

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:  Date: 7/3/2018

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: Plains COG SRO State 029H
Project #: SRS #:
Project Loc: Eddy County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 806102009

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TOTAL: TPH: TX 1005 Ext TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021 8260 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300	TCLP Benzene		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	MW-1 @ 24" SP-1			6/26/2018	1300		1	x									S		X								X							X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Matthew Green	7-2-18	8:15		7-2-18	8:15
	7-2-18	8:54			
			Received by: PBEL	7-2-18	8:54

Laboratory Comments:

Sample Containers Intact?	N
VOCs Free of Headspace?	N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered by Sampler/Client Rep ?	N
by Courier? UPS DHL FedEx Lone Star	
Temperature Upon Receipt:	
Received: 4.0 °C	
Adjusted: 4.4 °C Factor 0.9	

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green
2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa, TEXAS 79764

Project: Plains COG SRO State COM 029H
Project Number: SRS# TBD
Location: Eddy County, NM

Lab Order Number: 8G02010

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 07/03/18

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 @ 21"	8G02010-01	Soil	06/26/18 13:00	07-02-2018 11:42
BH-2 @ 10"	8G02010-02	Soil	06/26/18 13:05	07-02-2018 11:42
BH-3 @ 54"	8G02010-03	Soil	06/26/18 13:10	07-02-2018 11:42
WSW-1 @ 2'	8G02010-04	Soil	06/26/18 13:12	07-02-2018 11:42
NSW-1 @ 2'	8G02010-05	Soil	06/26/18 13:15	07-02-2018 11:42
BH-4 @ 21"	8G02010-06	Soil	06/26/18 13:20	07-02-2018 11:42

BH-1 @ 21''

8G02010-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*110 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*102 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**7.0**	0.1	%	1	P8G0302	07/03/18	07/03/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P8F2908	07/02/18	07/02/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8F2908	07/02/18	07/02/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8F2908	07/02/18	07/02/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*124 %*	*70-130*		*P8F2908*	*07/02/18*	*07/02/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*141 %*	*70-130*		*P8F2908*	*07/02/18*	*07/02/18*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	07/02/18	07/02/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BH-2 @ 10''

8G02010-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*101 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*109 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**6.0**	0.1	%	1	P8G0302	07/03/18	07/03/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**77.6**	26.6	mg/kg dry	1	P8F2908	07/02/18	07/02/18	TPH 8015M	
>C12-C28	**2350**	26.6	mg/kg dry	1	P8F2908	07/02/18	07/02/18	TPH 8015M	
>C28-C35	**345**	26.6	mg/kg dry	1	P8F2908	07/02/18	07/02/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		*P8F2908*	*07/02/18*	*07/02/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*160 %*	*70-130*		*P8F2908*	*07/02/18*	*07/02/18*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	**2780**	26.6	mg/kg dry	1	[CALC]	07/02/18	07/02/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BH-3 @ 54"

8G02010-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Toluene	ND	0.0102	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Ethylbenzene	ND	0.00510	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (p/m)	ND	0.0204	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (o)	ND	0.0102	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.7 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**2.0**	0.1	%	1	P8G0302	07/03/18	07/03/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**46.8**	25.5	mg/kg dry	1	P8F2908	07/02/18	07/03/18	TPH 8015M	
>C12-C28	**2530**	25.5	mg/kg dry	1	P8F2908	07/02/18	07/03/18	TPH 8015M	
>C28-C35	**401**	25.5	mg/kg dry	1	P8F2908	07/02/18	07/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*129 %*	*70-130*		*P8F2908*	*07/02/18*	*07/03/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*144 %*	*70-130*		*P8F2908*	*07/02/18*	*07/03/18*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	**2980**	25.5	mg/kg dry	1	[CALC]	07/02/18	07/03/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

WSW-1 @ 2'

8G02010-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Toluene	ND	0.0102	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Ethylbenzene	ND	0.00510	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (p/m)	ND	0.0204	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (o)	ND	0.0102	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*113 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*98.9 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**2.0**	0.1	%	1	P8G0302	07/03/18	07/03/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P8F2908	07/02/18	07/03/18	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P8F2908	07/02/18	07/03/18	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P8F2908	07/02/18	07/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*145 %*	*70-130*		*P8F2908*	*07/02/18*	*07/03/18*	*TPH 8015M*	*S-09*
Surrogate: o-Terphenyl		*167 %*	*70-130*		*P8F2908*	*07/02/18*	*07/03/18*	*TPH 8015M*	*S-09*
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	07/02/18	07/03/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

NSW-1 @ 2'

8G02010-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Toluene	ND	0.0103	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Ethylbenzene	ND	0.00515	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (p/m)	ND	0.0206	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (o)	ND	0.0103	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**3.0**	0.1	%	1	P8G0302	07/03/18	07/03/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**41.1**	25.8	mg/kg dry	1	P8G0305	07/02/18	07/02/18	TPH 8015M	
>C12-C28	**3920**	25.8	mg/kg dry	1	P8G0305	07/02/18	07/02/18	TPH 8015M	
>C28-C35	**584**	25.8	mg/kg dry	1	P8G0305	07/02/18	07/02/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		*P8G0305*	*07/02/18*	*07/02/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*130 %*	*70-130*		*P8G0305*	*07/02/18*	*07/02/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**4550**	25.8	mg/kg dry	1	[CALC]	07/02/18	07/02/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BH-4 @ 21''

8G02010-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8G0311	07/02/18	07/03/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*110 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*102 %*	*75-125*		*P8G0311*	*07/02/18*	*07/03/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**7.0**	0.1	%	1	P8G0302	07/03/18	07/03/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P8G0305	07/02/18	07/02/18	TPH 8015M	
>C12-C28	**1250**	26.9	mg/kg dry	1	P8G0305	07/02/18	07/02/18	TPH 8015M	
>C28-C35	**161**	26.9	mg/kg dry	1	P8G0305	07/02/18	07/02/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*117 %*	*70-130*		*P8G0305*	*07/02/18*	*07/02/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*145 %*	*70-130*		*P8G0305*	*07/02/18*	*07/02/18*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	**1420**	26.9	mg/kg dry	1	[CALC]	07/02/18	07/02/18	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G0311 - General Preparation (GC)										
Blank (P8G0311-BLK1)				Prepared & Analyzed: 07/02/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0562*		*"*	*0.0600*		*93.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0575*		*"*	*0.0600*		*95.8*	*75-125*			
LCS (P8G0311-BS1)				Prepared & Analyzed: 07/02/18						
Benzene	0.108	0.00100	mg/kg wet	0.100		108	70-130			
Toluene	0.0963	0.0100	"	0.100		96.3	70-130			
Ethylbenzene	0.101	0.00500	"	0.100		101	70-130			
Xylene (p/m)	0.212	0.0200	"				70-130			
Xylene (o)	0.101	0.0100	"				70-130			
Surrogate: 4-Bromofluorobenzene	*0.0613*		*"*	*0.0600*		*102*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0637*		*"*	*0.0600*		*106*	*75-125*			
LCS Dup (P8G0311-BSD1)				Prepared & Analyzed: 07/02/18						
Benzene	0.109	0.00100	mg/kg wet	0.100		109	70-130	0.894	20	
Toluene	0.0984	0.0100	"	0.100		98.4	70-130	2.24	20	
Ethylbenzene	0.105	0.00500	"	0.100		105	70-130	4.63	20	
Xylene (p/m)	0.207	0.0200	"				70-130		20	
Xylene (o)	0.105	0.0100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0632*		*"*	*0.0600*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0638*		*"*	*0.0600*		*106*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G0302 - * DEFAULT PREP *** **										
Blank (P8G0302-BLK1)				Prepared & Analyzed: 07/03/18						
% Moisture	ND	0.1	%							
Duplicate (P8G0302-DUP1)		**Source: 8G02007-01**		Prepared & Analyzed: 07/03/18						
% Moisture	13.0	0.1	%		13.0			0.00	20	
Duplicate (P8G0302-DUP2)		**Source: 8G02016-02**		Prepared & Analyzed: 07/03/18						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P8G0302-DUP3)		**Source: 8G02016-29**		Prepared & Analyzed: 07/03/18						
% Moisture	5.0	0.1	%		5.0			0.00	20	
Duplicate (P8G0302-DUP4)		**Source: 8G02016-35**		Prepared & Analyzed: 07/03/18						
% Moisture	2.0	0.1	%		2.0			0.00	20	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8F2908 - General Preparation (GC)										
Blank (P8F2908-BLK1)				Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*114*		*"*	*100*		*114*	*70-130*			
Surrogate: o-Terphenyl	*63.0*		*"*	*50.0*		*126*	*70-130*			
LCS (P8F2908-BS1)				Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1080	25.0	mg/kg wet	1000		108	75-125			
>C12-C28	1130	25.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	*111*		*"*	*100*		*111*	*70-130*			
Surrogate: o-Terphenyl	*66.4*		*"*	*50.0*		*133*	*70-130*			*S-GC*
LCS Dup (P8F2908-BSD1)				Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1030	25.0	mg/kg wet	1000		103	75-125	4.49	20	
>C12-C28	1080	25.0	"	1000		108	75-125	4.93	20	
Surrogate: 1-Chlorooctane	*105*		*"*	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*62.8*		*"*	*50.0*		*126*	*70-130*			
Matrix Spike (P8F2908-MS1)	**Source: 8F29004-02**			Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1020	26.0	mg/kg dry	1040	11.9	96.4	75-125			
>C12-C28	1070	26.0	"	1040	69.2	96.5	75-125			
Surrogate: 1-Chlorooctane	*118*		*"*	*104*		*114*	*70-130*			
Surrogate: o-Terphenyl	*63.4*		*"*	*52.1*		*122*	*70-130*			
Matrix Spike Dup (P8F2908-MSD1)	**Source: 8F29004-02**			Prepared: 06/29/18 Analyzed: 07/02/18						
C6-C12	1050	26.0	mg/kg dry	1040	11.9	99.8	75-125	3.54	20	
>C12-C28	1120	26.0	"	1040	69.2	100	75-125	4.01	20	
Surrogate: 1-Chlorooctane	*116*		*"*	*104*		*112*	*70-130*			
Surrogate: o-Terphenyl	*61.2*		*"*	*52.1*		*117*	*70-130*			

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G0305 - General Preparation (GC)										
Blank (P8G0305-BLK1)				Prepared & Analyzed: 07/02/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*148*		*"*	*100*		*148*	*70-130*			*S-09*
Surrogate: o-Terphenyl	*90.2*		*"*	*50.0*		*180*	*70-130*			*S-09*
LCS (P8G0305-BS1)				Prepared & Analyzed: 07/02/18						
C6-C12	973	25.0	mg/kg wet	1000		97.3	75-125			
>C12-C28	1190	25.0	"	1000		119	75-125			
Surrogate: 1-Chlorooctane	*103*		*"*	*100*		*103*	*70-130*			
Surrogate: o-Terphenyl	*61.7*		*"*	*50.0*		*123*	*70-130*			
LCS Dup (P8G0305-BSD1)				Prepared & Analyzed: 07/02/18						
C6-C12	1150	25.0	mg/kg wet	1000		115	75-125	16.3	20	
>C12-C28	1160	25.0	"	1000		116	75-125	2.30	20	
Surrogate: 1-Chlorooctane	*115*		*"*	*100*		*115*	*70-130*			
Surrogate: o-Terphenyl	*72.1*		*"*	*50.0*		*144*	*70-130*			*S-GC*
Duplicate (P8G0305-DUP1)	**Source: 8G02006-05**			Prepared: 07/02/18 Analyzed: 07/03/18						
C6-C12	ND	25.0	mg/kg dry		ND				20	
>C12-C28	251	25.0	"		426			51.8	20	
Surrogate: 1-Chlorooctane	*116*		*"*	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*67.1*		*"*	*50.0*		*134*	*70-130*			*S-GC*

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# TBD	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
S-09	Surrogate recovery limits have been exceeded.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:  Date: 7/3/2018

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: Plains COG SRO State 029H
Project #: SRS #:
Project Loc: Eddy County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 8G102010

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 6015M	TOTAL: TPH: 8015B / TX 1005 Ext / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300	TCLP Benzene		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	BH-1 @ 21"			6/26/2018	1300		1	x								S	X								X							X
02	BH- 2 @ 10"			6/26/2018	1305		1	x								S	X								X							X
03	BH-3 @ 54"			6/26/2018	1310		1	x								S	X								X							X
04	WSW-1 @ 2'			6/26/2018	1312		1	x								S	X								X							X
05	NSW-1 @ 2'			6/26/2018	1315		1	x								S	X								X							X
06	BH - 4 @ 21"			6/26/2018	1320		1	x								S	X								X							X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Matthew Green	7-2-18	8:15		7-2-18	8:15
Relinquished by:	Date	Time	Received by:	Date	Time
	7-2-18	8:59			
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				7-2-18	9:59

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep.? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt:
Received: 4.0 °C
Adjusted: 4.4 °C Factor 19.4 LI

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green

2M Environmental Services, LLC.

1219 W. University Blvd.

Odessa, TEXAS 79764

Project: Plains COG SRO State COM 029H

Project Number: SRS# 2018-094

Location: Eddy County, NM

Lab Order Number: 8G20008

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 08/21/18

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# 2018-094	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WC-1	8G20008-01	Soil	07/18/18 15:00	07-20-2018 12:52

TCLP BTEX, TCLP Metals, and RCI analysis were subcontracted to Test America. Their report is attached to the back of this report. Their certification number is T104704223-10-6-TX.

WC-1

8G20008-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**558**	5.38	mg/kg dry	5	P8G2613	07/26/18	07/28/18	EPA 300.0	
Reactive Cyanide	ND	0.250	mg/kg	1	P8H2007	07/30/18	07/31/18	SW846 9010B	SUB-1
Ignitability by Flashpoint	> 160		°F	1	P8H2007	08/01/18	08/01/18	ASTM D93-80	SUB-1
pH	**8.30**	0.10	pH Units	1	P8H2007	07/31/18	07/31/18	EPA 9045B	SUB-1
% Moisture	**7.0**	0.1	%	1	P8G2307	07/23/18	07/23/18	ASTM D2216	
Reactive Sulfide	ND	50.0	mg/kg	1	P8H2007	07/30/18	07/30/18	SW846 9030B	SUB-1
TCLP Metals 1311 by EPA / Standard Methods									
Mercury	ND	0.000250	mg/L	1	P8H2007	07/31/18	07/31/18	EPA 7470A	SUB-1
Arsenic	ND	0.100	mg/L	1	P8H2007	07/31/18	08/01/18	EPA 6010B	SUB-1
Barium	**0.530**	0.200	mg/L	1	P8H2007	07/31/18	08/03/18	EPA 6010B	SUB-1
Cadmium	ND	0.0500	mg/L	1	P8H2007	07/31/18	08/01/18	EPA 6010B	SUB-1
Chromium	ND	0.100	mg/L	1	P8H2007	07/31/18	08/01/18	EPA 6010B	SUB-1
Lead	ND	0.100	mg/L	1	P8H2007	07/31/18	08/01/18	EPA 6010B	SUB-1
Selenium	ND	0.400	mg/L	1	P8H2007	07/31/18	08/01/18	EPA 6010B	SUB-1
Silver	ND	0.100	mg/L	1	P8H2007	07/31/18	08/01/18	EPA 6010B	SUB-1
TCLP Volatile Organic Compounds by EPA Method 1311/8260B									
Benzene	ND	0.100	ug/l	1	P8H2007	08/01/18	08/01/18	EPA 8260B	SUB-1
Toluene	ND	0.100	ug/l	1	P8H2007	08/01/18	08/01/18	EPA 8260B	SUB-1
Ethylbenzene	ND	0.100	ug/l	1	P8H2007	08/01/18	08/01/18	EPA 8260B	SUB-1
Xylene (p/m)	ND	0.100	ug/l	1	P8H2007	08/01/18	08/01/18	EPA 8260B	SUB-1
Xylene (o)	ND	0.100	ug/l	1	P8H2007	08/01/18	08/01/18	EPA 8260B	SUB-1

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G2307 - * DEFAULT PREP *** **										
Blank (P8G2307-BLK1)				Prepared & Analyzed: 07/23/18						
% Moisture	ND	0.1	%							
Duplicate (P8G2307-DUP1)		**Source: 8G20007-02**		Prepared & Analyzed: 07/23/18						
% Moisture	ND	0.1	%		ND				20	
Duplicate (P8G2307-DUP2)		**Source: 8G20010-12**		Prepared & Analyzed: 07/23/18						
% Moisture	12.0	0.1	%		11.0			8.70	20	
Duplicate (P8G2307-DUP3)		**Source: 8G20011-12**		Prepared & Analyzed: 07/23/18						
% Moisture	9.0	0.1	%		9.0			0.00	20	
Batch P8G2613 - * DEFAULT PREP *** **										
Blank (P8G2613-BLK1)				Prepared: 07/26/18 Analyzed: 07/28/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8G2613-BS1)				Prepared: 07/26/18 Analyzed: 07/28/18						
Chloride	373	1.00	mg/kg wet	400		93.2	80-120			
LCS Dup (P8G2613-BSD1)				Prepared: 07/26/18 Analyzed: 07/28/18						
Chloride	372	1.00	mg/kg wet	400		93.0	80-120	0.153	20	
Duplicate (P8G2613-DUP1)		**Source: 8G19002-24**		Prepared: 07/26/18 Analyzed: 07/28/18						
Chloride	20.9	1.05	mg/kg dry		23.7			12.8	20	
Duplicate (P8G2613-DUP2)		**Source: 8G19002-34**		Prepared: 07/26/18 Analyzed: 07/28/18						
Chloride	ND	1.06	mg/kg dry		ND				20	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G2613 - * DEFAULT PREP *** **										
Matrix Spike (P8G2613-MS1)	**Source: 8G19002-24**			Prepared: 07/26/18 Analyzed: 07/28/18						
Chloride	895	10.5	mg/kg dry	1050	23.7	82.8	80-120			

Notes and Definitions

SUB-1	Subcontract of analyte/analysis to Test America TCEQ/NELAC # T104704223-10-6-TX
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:  Date: 8/21/2018

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-861-4184

Project Manager: Matt Green

Company Name: 2M Environmental Services, LLC.

Company Address: 1219 W. University Blvd.

City/State/Zip: Odessa, Texas 79764

Telephone No: (432)230-3763 Fax No:

Sampler Signature:

Project Name: Plains COG SRO State 029H

Project #: SRS #:

Project Loc: Eddy County, NM

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

e-mail: mgreen@2m-environmental.com
rblake@2m-environmental.com

(lab use only)
ORDER #: 8G20008

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 8015M	TPH: TX 1005 Ext	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300	TCLP Benzene	TCLP BTEX	RUSH TAT (pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	WC-1			7/18/2018	1500		4	x								S						x				x		x		x		X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	7-20-18	11:00		7-20-18	
Relinquished by:	Date	Time	Received by:	Date	Time
	7-20-18	11:37			
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				7-20-18	12:10

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: °C
Adjusted: 2.0 °C Factor

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-169845-1
Client Project/Site: 8G20008 7-18-18

For:
Permian Basin Environmental Lab LP
10014 South County Road 1213
Midland, Texas 79706

Attn: Brent Barron

C. Lance Tigrett

Authorized for release by:
8/7/2018 5:07:01 PM

C. Lance Tigrett, Project Manager II
(713)690-4444
lance.tigrett@testamericainc.com

Table of Contents

Case Narrative

Client: Permian Basin Environmental Lab LP
Project/Site: 8G20008 7-18-18

TestAmerica Job ID: 600-169845-1

Job ID: 600-169845-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-169845-1

Comments
No additional comments.

Receipt
The sample was received on 7/27/2018 9:50 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

GC/MS VOA
Method(s) 8260B: The following samples were diluted due to the nature of the sample matrix: 8G20008-01 (600-169845-1), (600-169845-A-1-F MS) and (600-169845-A-1-E MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010B: The method blank for Prep Batch 244025 contained Arsenic above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The TCLP leachate blank for Prep Batch 243986 contained Selenium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The method blank for Prep Batch 244204 contained Selenium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B, 6010C: The TCLP leachate blank for batch 243986 contained Barium above the reporting limit (RL). This target analyte concentration was less than the TCLP Regulatory Limit. The associated samples were also below the TCLP Regulatory Limit for this analyte; therefore, re-extraction was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: Permian Basin Environmental Lab LP
Project/Site: 8G20008 7-18-18

TestAmerica Job ID: 600-169845-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
7.4.4	Reactive Sulfide	EPA	TAL HOU
9012	Cyanide, Reactive	SW846	TAL HOU
9045C	Corrosivity as pH	SW846	TAL HOU
D92	Flashpoint	ASTM	TAL HOU
1311	TCLP Extraction	SW846	TAL HOU
3010A	Preparation, Total Metals	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
7.3.3	Cyanide, Reactive	SW846	TAL HOU
7.3.4	Sulfide, Reactive	SW846	TAL HOU
7470A	Preparation, Mercury	SW846	TAL HOU

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: Permian Basin Environmental Lab LP
Project/Site: 8G20008 7-18-18

TestAmerica Job ID: 600-169845-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-169845-1	8G20008-01	Solid	07/18/18 15:00	07/27/18 09:50

Client: Permian Basin Environmental Lab LP
Project/Site: 8G20008 7-18-18

TestAmerica Job ID: 600-169845-1

Client Sample ID: 8G20008-01
Date Collected: 07/18/18 15:00
Date Received: 07/27/18 09:50

Lab Sample ID: 600-169845-1
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.011	U	0.10	0.011	mg/L			08/01/18 21:01	20
Toluene	0.011	U	0.10	0.011	mg/L			08/01/18 21:01	20
o-Xylene	0.019	U	0.10	0.019	mg/L			08/01/18 21:01	20
Ethylbenzene	0.026	U	0.10	0.026	mg/L			08/01/18 21:01	20
Xylenes, Total	0.040	U	0.10	0.040	mg/L			08/01/18 21:01	20
m-Xylene & p-Xylene	0.025	U	0.10	0.025	mg/L			08/01/18 21:01	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*67 - 139*		*08/01/18 21:01*	*20*
Dibromofluoromethane	*99*		*62 - 130*		*08/01/18 21:01*	*20*
Toluene-d8 (Surr)	*111*		*70 - 130*		*08/01/18 21:01*	*20*
1,2-Dichloroethane-d4 (Surr)	*100*		*50 - 134*		*08/01/18 21:01*	*20*

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.013	U	0.10	0.013	mg/L		07/31/18 12:28	08/01/18 15:35	1
Arsenic	**0.035**	**J B**	0.10	0.029	mg/L		07/31/18 12:28	08/01/18 15:35	1
Barium	**0.53**	**B**	0.20	0.0053	mg/L		08/02/18 08:27	08/03/18 14:19	1
Cadmium	0.0028	U	0.050	0.0028	mg/L		07/31/18 12:28	08/01/18 15:35	1
Chromium	0.016	U	0.10	0.016	mg/L		07/31/18 12:28	08/01/18 15:35	1
Lead	0.022	U	0.10	0.022	mg/L		07/31/18 12:28	08/01/18 15:35	1
Selenium	0.029	U	0.40	0.029	mg/L		07/31/18 12:28	08/01/18 15:35	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	U	0.00025	0.00010	mg/L		07/31/18 11:58	07/31/18 16:23	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**6.0**		1.0	1.0	%			07/30/18 09:07	1
Percent Solids	**94.0**		1.0	1.0	%			07/30/18 09:07	1
Sulfide, Reactive	14	U	49	14	mg/Kg		07/30/18 13:07	07/31/18 18:00	1
Cyanide, Reactive	0.084	U	0.25	0.084	mg/Kg		07/30/18 13:07	07/31/18 16:01	1
pH	**8.3**	**H**	0.01	0.01	SU			07/31/18 13:27	1
Flashpoint	**>160**		1.00	1.00	Degrees F			08/01/18 10:15	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Permian Basin Environmental Lab LP
Project/Site: 8G20008 7-18-18

TestAmerica Job ID: 600-169845-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	DCA
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)
LCS 600-244142/5	Lab Control Sample	125	113	113	110
LCSD 600-244142/6	Lab Control Sample Dup	130	107	113	106
MB 600-244142/9	Method Blank	128	104	109	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	DCA
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)
600-169845-1	8G20008-01	109	99	111	100
600-169845-1 MS	8G20008-01	118	99	112	100
600-169845-1 MSD	8G20008-01	125	102	108	102
LB 600-244147/1-A	Method Blank	113	100	113	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-244142/9
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00056	U	0.0050	0.00056	mg/L			08/01/18 16:53	1
Toluene	0.00055	U	0.0050	0.00055	mg/L			08/01/18 16:53	1
o-Xylene	0.00093	U	0.0050	0.00093	mg/L			08/01/18 16:53	1
Ethylbenzene	0.0013	U	0.0050	0.0013	mg/L			08/01/18 16:53	1
Xylenes, Total	0.0020	U	0.0050	0.0020	mg/L			08/01/18 16:53	1
m-Xylene & p-Xylene	0.0013	U	0.0050	0.0013	mg/L			08/01/18 16:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*128*		*67 - 139*		*08/01/18 16:53*	*1*
Dibromofluoromethane	*104*		*62 - 130*		*08/01/18 16:53*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*08/01/18 16:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*50 - 134*		*08/01/18 16:53*	*1*

Lab Sample ID: LCS 600-244142/5
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.0500	0.0443		mg/L		89	70 - 131		
Toluene			0.0500	0.0451		mg/L		90	70 - 130		
o-Xylene			0.0500	0.0444		mg/L		89	69 - 130		
Ethylbenzene			0.0500	0.0466		mg/L		93	70 - 130		
Xylenes, Total			0.100	0.0896		mg/L		90	70 - 130		
m-Xylene & p-Xylene			0.0500	0.0452		mg/L		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*125*		*67 - 139*
Dibromofluoromethane	*113*		*62 - 130*
Toluene-d8 (Surr)	*113*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*110*		*50 - 134*

Lab Sample ID: LCSD 600-244142/6
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.0500	0.0381		mg/L		76	70 - 131	NaN	20
Toluene			0.0500	0.0380		mg/L		76	70 - 130	NaN	20
o-Xylene			0.0500	0.0372		mg/L		74	69 - 130	NaN	20
Ethylbenzene			0.0500	0.0394		mg/L		79	70 - 130	NaN	20
Xylenes, Total			0.100	0.0754		mg/L		75	70 - 130	NaN	20
m-Xylene & p-Xylene			0.0500	0.0382		mg/L		76	70 - 130	NaN	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*130*		*67 - 139*
Dibromofluoromethane	*107*		*62 - 130*
Toluene-d8 (Surr)	*113*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-244142/6
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*50 - 134*

Lab Sample ID: LB 600-244147/1-A
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00056	U	0.0050	0.00056	mg/L			08/01/18 17:38	1
Toluene	0.00055	U	0.0050	0.00055	mg/L			08/01/18 17:38	1
o-Xylene	0.00093	U	0.0050	0.00093	mg/L			08/01/18 17:38	1
Ethylbenzene	0.0013	U	0.0050	0.0013	mg/L			08/01/18 17:38	1
Xylenes, Total	0.0020	U	0.0050	0.0020	mg/L			08/01/18 17:38	1
m-Xylene & p-Xylene	0.0013	U	0.0050	0.0013	mg/L			08/01/18 17:38	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*67 - 139*		*08/01/18 17:38*	*1*
Dibromofluoromethane	*100*		*62 - 130*		*08/01/18 17:38*	*1*
Toluene-d8 (Surr)	*113*		*70 - 130*		*08/01/18 17:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*50 - 134*		*08/01/18 17:38*	*1*

Lab Sample ID: 600-169845-1 MS
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: 8G20008-01
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.011	U	1.00	0.784		mg/L		78	70 - 131
Toluene	0.011	U	1.00	0.831		mg/L		83	70 - 130
o-Xylene	0.019	U	1.00	0.817		mg/L		82	69 - 130
Ethylbenzene	0.026	U	1.00	0.797		mg/L		80	70 - 130
Xylenes, Total	0.040	U	2.00	1.62		mg/L		81	70 - 130
m-Xylene & p-Xylene	0.025	U	1.00	0.804		mg/L		80	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*118*		*67 - 139*
Dibromofluoromethane	*99*		*62 - 130*
Toluene-d8 (Surr)	*112*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*100*		*50 - 134*

Lab Sample ID: 600-169845-1 MSD
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: 8G20008-01
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.011	U	1.00	0.801		mg/L		80	70 - 131	2	21
Toluene	0.011	U	1.00	0.837		mg/L		84	70 - 130	1	21
o-Xylene	0.019	U	1.00	0.794		mg/L		79	69 - 130	3	25
Ethylbenzene	0.026	U	1.00	0.827		mg/L		83	70 - 130	4	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-169845-1 MSD
Matrix: Solid
Analysis Batch: 244142

Client Sample ID: 8G20008-01
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	0.040	U	2.00	1.58		mg/L		79	70 - 130	2	25
m-Xylene & p-Xylene	0.025	U	1.00	0.790		mg/L		79	70 - 130	2	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*125*		*67 - 139*
Dibromofluoromethane	*102*		*62 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*50 - 134*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-244025/1-A
Matrix: Solid
Analysis Batch: 244134

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244025

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0013	U	0.010	0.0013	mg/L		07/31/18 12:28	08/01/18 15:17	1
Arsenic	0.00370	J	0.010	0.0029	mg/L		07/31/18 12:28	08/01/18 15:17	1
Barium	0.00053	U	0.020	0.00053	mg/L		07/31/18 12:28	08/01/18 15:17	1
Cadmium	0.00028	U	0.0050	0.00028	mg/L		07/31/18 12:28	08/01/18 15:17	1
Chromium	0.0016	U	0.010	0.0016	mg/L		07/31/18 12:28	08/01/18 15:17	1
Lead	0.0022	U	0.010	0.0022	mg/L		07/31/18 12:28	08/01/18 15:17	1
Selenium	0.0029	U	0.040	0.0029	mg/L		07/31/18 12:28	08/01/18 15:17	1

Lab Sample ID: LCS 600-244025/2-A
Matrix: Solid
Analysis Batch: 244134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.500	0.516		mg/L		103	80 - 120
Arsenic	1.00	1.04		mg/L		104	80 - 120
Barium	1.00	0.994		mg/L		99	80 - 120
Cadmium	0.500	0.522		mg/L		104	80 - 120
Chromium	1.00	0.998		mg/L		100	80 - 120
Lead	1.00	1.01		mg/L		101	80 - 120
Selenium	1.00	1.11		mg/L		111	80 - 120

Lab Sample ID: MB 600-244204/1-A
Matrix: Solid
Analysis Batch: 244306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244204

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.00053	U	0.020	0.00053	mg/L		08/02/18 08:27	08/03/18 13:34	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 600-244204/2-A
Matrix: Solid
Analysis Batch: 244306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: LB 600-243986/1-C
Matrix: Solid
Analysis Batch: 244134

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 244025

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.013	U	0.10	0.013	mg/L		07/31/18 12:28	08/01/18 15:33	1
Arsenic	0.029	U	0.10	0.029	mg/L		07/31/18 12:28	08/01/18 15:33	1
Cadmium	0.0028	U	0.050	0.0028	mg/L		07/31/18 12:28	08/01/18 15:33	1
Chromium	0.016	U	0.10	0.016	mg/L		07/31/18 12:28	08/01/18 15:33	1
Lead	0.022	U	0.10	0.022	mg/L		07/31/18 12:28	08/01/18 15:33	1
Selenium	0.0300	J	0.40	0.029	mg/L		07/31/18 12:28	08/01/18 15:33	1

Lab Sample ID: 600-169816-A-1-E DU
Matrix: Solid
Analysis Batch: 244134

Client Sample ID: Duplicate
Prep Type: TCLP
Prep Batch: 244025

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	0.013	U	0.013	U	mg/L		NC	20
Arsenic	0.060	J B	0.029	U	mg/L		NC	20
Barium	1.2	B	1.30		mg/L		5	20
Cadmium	0.0028	U	0.0028	U	mg/L		NC	20
Chromium	0.016	U	0.016	U	mg/L		NC	20
Lead	0.036	J	0.0500	J F5	mg/L		33	20
Selenium	0.029	U	0.029	U	mg/L		NC	20

Lab Sample ID: LB 600-243986/1-E
Matrix: Solid
Analysis Batch: 244306

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 244204

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.257		0.20	0.0053	mg/L		08/02/18 08:27	08/03/18 13:55	1

Lab Sample ID: 490-156235-A-7-H MS
Matrix: Solid
Analysis Batch: 244306

Client Sample ID: Matrix Spike
Prep Type: TCLP
Prep Batch: 244204

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.47	B	10.0	10.5		mg/L		100	75 - 125

Lab Sample ID: 490-156235-B-3-I DU
Matrix: Solid
Analysis Batch: 244306

Client Sample ID: Duplicate
Prep Type: TCLP
Prep Batch: 244204

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.32	B	0.324		mg/L		0.7	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 600-244020/7-A
Matrix: Solid
Analysis Batch: 244036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244020

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	U	0.00025	0.00010	mg/L		07/31/18 11:56	07/31/18 15:19	1

Lab Sample ID: LCS 600-244020/8-A
Matrix: Solid
Analysis Batch: 244036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00375	0.00383		mg/L		102	70 - 130

Lab Sample ID: LB 600-243986/1-B
Matrix: Solid
Analysis Batch: 244036

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 244020

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	U	0.00025	0.00010	mg/L		07/31/18 11:56	07/31/18 15:23	1

Lab Sample ID: 490-156235-A-12-F MS
Matrix: Solid
Analysis Batch: 244036

Client Sample ID: Matrix Spike
Prep Type: TCLP
Prep Batch: 244020

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00010	U	0.00375	0.00356		mg/L		95	75 - 125

Lab Sample ID: 490-156235-A-12-E DU
Matrix: Solid
Analysis Batch: 244036

Client Sample ID: Duplicate
Prep Type: TCLP
Prep Batch: 244020

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.00010	U	0.00010	U	mg/L		NC	20

Method: 2540B - Percent Moisture

Lab Sample ID: 600-169856-A-1 DU
Matrix: Solid
Analysis Batch: 243867

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	94.4		93.5		%		1	20
Percent Solids	5.6		6.5		%		15	20

Method: 7.4.4 - Reactive Sulfide

Lab Sample ID: MB 600-243924/1-A
Matrix: Solid
Analysis Batch: 244076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 243924

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	14	U	50	14	mg/Kg		07/30/18 13:07	07/31/18 18:00	1

Method: 7.4.4 - Reactive Sulfide (Continued)

Lab Sample ID: LCS 600-243924/3-A
Matrix: Solid
Analysis Batch: 244076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 243924

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Reactive			1000	1700		mg/Kg		170	0 - 200		

Lab Sample ID: 600-169808-A-1-G MS
Matrix: Solid
Analysis Batch: 244076

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 243924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Reactive	14	U	979	14	U	mg/Kg		0	0 - 200		

Lab Sample ID: 600-169808-A-1-E DU
Matrix: Solid
Analysis Batch: 244076

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 243924

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide, Reactive	14	U		14	U	mg/Kg				NC	20

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 600-243924/1-A
Matrix: Solid
Analysis Batch: 244064

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 243924

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	0.086	U	0.25	0.086	mg/Kg		07/30/18 13:07	07/31/18 15:57	1

Lab Sample ID: LCS 600-243924/2-A
Matrix: Solid
Analysis Batch: 244064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 243924

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Reactive			1000	24.7		mg/Kg		2	0 - 200		

Method: 9045C - Corrosivity as pH

Lab Sample ID: LCS 600-244033/1
Matrix: Solid
Analysis Batch: 244033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100	99 - 101		

Lab Sample ID: 600-169683-A-1 DU
Matrix: Solid
Analysis Batch: 244033

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	1.7			1.7		SU				1	1

Method: D92 - Flashpoint

Lab Sample ID: MB 600-244167/1
Matrix: Solid
Analysis Batch: 244167

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>160		1.00	1.00	Degrees F			08/01/18 10:15	1

Lab Sample ID: LCS 600-244167/2
Matrix: Solid
Analysis Batch: 244167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Flashpoint			81.0	75.00		Degrees F		93	88 - 112		

Lab Sample ID: 600-169630-A-1 DU
Matrix: Solid
Analysis Batch: 244167

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Flashpoint	>160			>160		Degrees F				NC	20

Unadjusted Detection Limits

Client: Permian Basin Environmental Lab LP
Project/Site: 8G20008 7-18-18

TestAmerica Job ID: 600-169845-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Leach: 1311

Analyte	MQL	MDL	Units	Method
Benzene	0.0050	0.00056	mg/L	8260B
Ethylbenzene	0.0050	0.0013	mg/L	8260B
m-Xylene & p-Xylene	0.0050	0.0013	mg/L	8260B
o-Xylene	0.0050	0.00093	mg/L	8260B
Toluene	0.0050	0.00055	mg/L	8260B
Xylenes, Total	0.0050	0.0020	mg/L	8260B

Method: 6010B - Metals (ICP) - TCLP

Prep: 3010A
Leach: 1311

Analyte	MQL	MDL	Units	Method
Arsenic	0.010	0.0029	mg/L	6010B
Barium	0.020	0.00053	mg/L	6010B
Cadmium	0.0050	0.00028	mg/L	6010B
Chromium	0.010	0.0016	mg/L	6010B
Lead	0.010	0.0022	mg/L	6010B
Selenium	0.040	0.0029	mg/L	6010B
Silver	0.010	0.0013	mg/L	6010B

Method: 7470A - Mercury (CVAA) - TCLP

Prep: 7470A
Leach: 1311

Analyte	MQL	MDL	Units	Method
Mercury	0.00020	0.000082	mg/L	7470A

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	2540B
Percent Solids	1.0	1.0	%	2540B
pH	0.01	0.01	SU	9045C
Flashpoint	1.00	1.00	Degrees F	D92

General Chemistry

Prep: 7.3.4

Analyte	MQL	MDL	Units	Method
Sulfide, Reactive	50	14	mg/Kg	7.4.4
Cyanide, Reactive	0.25	0.086	mg/Kg	9012

GC/MS VOA

Analysis Batch: 244142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	8260B	244147
LB 600-244147/1-A	Method Blank	TCLP	Solid	8260B	244147
MB 600-244142/9	Method Blank	Total/NA	Solid	8260B	
LCS 600-244142/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-244142/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-169845-1 MS	8G20008-01	TCLP	Solid	8260B	244147
600-169845-1 MSD	8G20008-01	TCLP	Solid	8260B	244147

Leach Batch: 244147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	1311	
LB 600-244147/1-A	Method Blank	TCLP	Solid	1311	
600-169845-1 MS	8G20008-01	TCLP	Solid	1311	
600-169845-1 MSD	8G20008-01	TCLP	Solid	1311	

Metals

Leach Batch: 243853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169816-A-1-E DU	Duplicate	TCLP	Solid	1311	

Leach Batch: 243986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	1311	
LB 600-243986/1-B	Method Blank	TCLP	Solid	1311	
LB 600-243986/1-C	Method Blank	TCLP	Solid	1311	
LB 600-243986/1-E	Method Blank	TCLP	Solid	1311	
490-156235-A-7-H MS	Matrix Spike	TCLP	Solid	1311	
490-156235-A-12-F MS	Matrix Spike	TCLP	Solid	1311	
490-156235-A-12-E DU	Duplicate	TCLP	Solid	1311	
490-156235-B-3-I DU	Duplicate	TCLP	Solid	1311	

Prep Batch: 244020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	7470A	243986
LB 600-243986/1-B	Method Blank	TCLP	Solid	7470A	243986
MB 600-244020/7-A	Method Blank	Total/NA	Solid	7470A	
LCS 600-244020/8-A	Lab Control Sample	Total/NA	Solid	7470A	
490-156235-A-12-F MS	Matrix Spike	TCLP	Solid	7470A	243986
490-156235-A-12-E DU	Duplicate	TCLP	Solid	7470A	243986

Prep Batch: 244025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	3010A	243986
LB 600-243986/1-C	Method Blank	TCLP	Solid	3010A	243986
MB 600-244025/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 600-244025/2-A	Lab Control Sample	Total/NA	Solid	3010A	
600-169816-A-1-E DU	Duplicate	TCLP	Solid	3010A	243853

Metals (Continued)

Analysis Batch: 244036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	7470A	244020
LB 600-243986/1-B	Method Blank	TCLP	Solid	7470A	244020
MB 600-244020/7-A	Method Blank	Total/NA	Solid	7470A	244020
LCS 600-244020/8-A	Lab Control Sample	Total/NA	Solid	7470A	244020
490-156235-A-12-F MS	Matrix Spike	TCLP	Solid	7470A	244020
490-156235-A-12-E DU	Duplicate	TCLP	Solid	7470A	244020

Analysis Batch: 244134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	6010B	244025
LB 600-243986/1-C	Method Blank	TCLP	Solid	6010B	244025
MB 600-244025/1-A	Method Blank	Total/NA	Solid	6010B	244025
LCS 600-244025/2-A	Lab Control Sample	Total/NA	Solid	6010B	244025
600-169816-A-1-E DU	Duplicate	TCLP	Solid	6010B	244025

Prep Batch: 244204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	3010A	243986
LB 600-243986/1-E	Method Blank	TCLP	Solid	3010A	243986
MB 600-244204/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 600-244204/2-A	Lab Control Sample	Total/NA	Solid	3010A	
490-156235-A-7-H MS	Matrix Spike	TCLP	Solid	3010A	243986
490-156235-B-3-I DU	Duplicate	TCLP	Solid	3010A	243986

Analysis Batch: 244306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	TCLP	Solid	6010B	244204
LB 600-243986/1-E	Method Blank	TCLP	Solid	6010B	244204
MB 600-244204/1-A	Method Blank	Total/NA	Solid	6010B	244204
LCS 600-244204/2-A	Lab Control Sample	Total/NA	Solid	6010B	244204
490-156235-A-7-H MS	Matrix Spike	TCLP	Solid	6010B	244204
490-156235-B-3-I DU	Duplicate	TCLP	Solid	6010B	244204

General Chemistry

Analysis Batch: 243867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	Total/NA	Solid	2540B	
600-169856-A-1 DU	Duplicate	Total/NA	Solid	2540B	

Prep Batch: 243924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	Total/NA	Solid	7.3.4	
MB 600-243924/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 600-243924/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	
LCS 600-243924/3-A	Lab Control Sample	Total/NA	Solid	7.3.4	
600-169808-A-1-G MS	Matrix Spike	Total/NA	Solid	7.3.4	
600-169808-A-1-E DU	Duplicate	Total/NA	Solid	7.3.4	

General Chemistry (Continued)

Analysis Batch: 244033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	Total/NA	Solid	9045C	
LCS 600-244033/1	Lab Control Sample	Total/NA	Solid	9045C	
600-169683-A-1 DU	Duplicate	Total/NA	Solid	9045C	

Analysis Batch: 244064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	Total/NA	Solid	9012	243924
MB 600-243924/1-A	Method Blank	Total/NA	Solid	9012	243924
LCS 600-243924/2-A	Lab Control Sample	Total/NA	Solid	9012	243924

Analysis Batch: 244076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	Total/NA	Solid	7.4.4	243924
MB 600-243924/1-A	Method Blank	Total/NA	Solid	7.4.4	243924
LCS 600-243924/3-A	Lab Control Sample	Total/NA	Solid	7.4.4	243924
600-169808-A-1-G MS	Matrix Spike	Total/NA	Solid	7.4.4	243924
600-169808-A-1-E DU	Duplicate	Total/NA	Solid	7.4.4	243924

Analysis Batch: 244167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-169845-1	8G20008-01	Total/NA	Solid	D92	
MB 600-244167/1	Method Blank	Total/NA	Solid	D92	
LCS 600-244167/2	Lab Control Sample	Total/NA	Solid	D92	
600-169630-A-1 DU	Duplicate	Total/NA	Solid	D92	

Lab Chronicle

Client: Permian Basin Environmental Lab LP
Project/Site: 8G20008 7-18-18

TestAmerica Job ID: 600-169845-1

Client Sample ID: 8G20008-01

Date Collected: 07/18/18 15:00
Date Received: 07/27/18 09:50

Lab Sample ID: 600-169845-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			25.1 g	500 mL	244147	07/31/18 18:30	TWR	TAL HOU
TCLP	Analysis	8260B		20	5 mL	5 mL	244142	08/01/18 21:01	KLV	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	243986	07/30/18 17:15	SOT	TAL HOU
TCLP	Prep	3010A			5.0 mL	50.0 mL	244204	08/02/18 08:27	SEJ	TAL HOU
TCLP	Analysis	6010B		1			244306	08/03/18 14:19	DCL	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	243986	07/30/18 17:15	SOT	TAL HOU
TCLP	Prep	3010A			5.0 mL	50.0 mL	244025	07/31/18 12:28	SEJ	TAL HOU
TCLP	Analysis	6010B		1			244134	08/01/18 15:35	DCL	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	243986	07/30/18 17:15	SOT	TAL HOU
TCLP	Prep	7470A			40 mL	50 mL	244020	07/31/18 11:58	KP1	TAL HOU
TCLP	Analysis	7470A		1			244036	07/31/18 16:23	KP1	TAL HOU
Total/NA	Analysis	2540B		1			243867	07/30/18 09:07	DTN	TAL HOU
Total/NA	Prep	7.3.4			10.16 g	250 mL	243924	07/30/18 13:07	DTN	TAL HOU
Total/NA	Analysis	7.4.4		1			244076	07/31/18 18:00	KRD	TAL HOU
Total/NA	Prep	7.3.4			10.16 g	250 mL	243924	07/30/18 13:07	DTN	TAL HOU
Total/NA	Analysis	9012		1	5 mL	5 mL	244064	07/31/18 16:01	KRD	TAL HOU
Total/NA	Analysis	9045C		1			244033	07/31/18 13:27	DTN	TAL HOU
Total/NA	Analysis	D92		1			244167	08/01/18 10:15	KLR	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: Permian Basin Environmental Lab LP
TestAmerica Job ID: 600-169845-1
Project/Site: 8G20008 7-18-18

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704223-17-22	10-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
2540B		Solid	Percent Moisture
2540B		Solid	Percent Solids
9012	7.3.4	Solid	Cyanide, Reactive
D92		Solid	Flashpoint

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
1400 Rankin HWY
Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Brent Barron
Company Name: PBEL
Company Address: 1400 Rankin HWY
City/State/Zip: Midland Texas 79701
Telephone No: 432-661-4184
Fax No:
Sampler Signature: N/A
e-mail: brentbarron@pbelab.com

Project Name: SUBCONTRACT
Project #:
Project Loc:
PO #:
Report Format: Standard ☒ TRRP ☐ NPDES

(lab use only)
ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3 500 ml Poly 3 250 poly 1	HCl 2x 40mL VOA	H_2SO_4 1 Amber 500/250 poly	NaOH /ZNAC 250 Poly 1	$Na_2S_2O_3$	None 250 poly 1/ 500mL amber	NaOH/ZnAc	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP 8 RCRA Metals	TCLP BTEX	RCI	4 day TAT
	8G20008-01			7/18/2018	1500		2	x								S	x	x	x	x

600-169845 Chain of Custody

Special Instructions: RUSH

Relinquished by:	Date	Time		Date	Time
Brent Barron	7/26/2018	1700			
Relinquished by:	Date	Time	Received by:	Date	Time
				7/27/18	9:50
Relinquished by:	Date	Time	Received by:	Date	Time

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt
Received: °C
Adjusted: °C Factor

TestAmerica Houston

Loc: 600
169845

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

Date/Time Received: '18 JUL 27 9:50

JOB NUMBER: _____

CLIENT: PRed

UNPACKED BY: PP

CARRIER/DRIVER: FedEx

Custody Seal Present: ☐ YES ☒ NO

Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
RW	Y / N	Y / N	2.1	077	+0.4	2.5
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				7/27/18
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☐ YES ☐ NO

pH paper Lot #_____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☒ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒	

COMMENTS:

PD 7/27/18

600-169845 Waybill

Login Sample Receipt Checklist

Client: Permian Basin Environmental Lab LP

Job Number: 600-169845-1

Login Number: 169845
List Number: 1
Creator: Daley, Phoenix 1

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green

2M Environmental Services, LLC.

1219 W. University Blvd.

Odessa, TEXAS 79764

Project: Plains COG SRO State COM 029H

Project Number: SRS# 2018-094

Location: Eddy County, NM

Lab Order Number: 8G23012

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 08/08/18

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# 2018-094	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NSW-1 @ 43"	8G23012-01	Soil	07/20/18 11:31	07-23-2018 14:24
BH-2 @ 41"	8G23012-02	Soil	07/20/18 11:22	07-23-2018 14:24
BH-3 @ 60"	8G23012-03	Soil	07/20/18 11:45	07-23-2018 14:24
BH-4 @ 24"	8G23012-04	Soil	07/20/18 11:36	07-23-2018 14:24

NSW-1 @ 43"

8G23012-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*105 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*87.1 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**7.0**	0.1	%	1	P8G2401	07/24/18	07/24/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P8G2407	07/24/18	07/24/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8G2407	07/24/18	07/24/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8G2407	07/24/18	07/24/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P8G2407*	*07/24/18*	*07/24/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*118 %*	*70-130*		*P8G2407*	*07/24/18*	*07/24/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	07/24/18	07/24/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# 2018-094	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BH-2 @ 41''

8G23012-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*92.1 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*113 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**8.0**	0.1	%	1	P8G2401	07/24/18	07/24/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
>C12-C28	**248**	27.2	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
>C28-C35	**59.1**	27.2	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.0 %*	*70-130*		*P8G3101*	*07/31/18*	*07/31/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.7 %*	*70-130*		*P8G3101*	*07/31/18*	*07/31/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**307**	27.2	mg/kg dry	1	[CALC]	07/31/18	07/31/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# 2018-094	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BH-3 @ 60''

8G23012-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Toluene	ND	0.0100	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Ethylbenzene	ND	0.00500	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (p/m)	ND	0.0200	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (o)	ND	0.0100	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*87.5 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	ND	0.1	%	1	P8G2401	07/24/18	07/24/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*89.8 %*	*70-130*		*P8G3101*	*07/31/18*	*07/31/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*90.3 %*	*70-130*		*P8G3101*	*07/31/18*	*07/31/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	07/31/18	07/31/18	calc	

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# 2018-094	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BH-4 @ 24''

8G23012-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8G2607	07/26/18	07/29/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*80.9 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*98.3 %*	*75-125*		*P8G2607*	*07/26/18*	*07/29/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**10.0**	0.1	%	1	P8G2401	07/24/18	07/24/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8G3101	07/31/18	07/31/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.0 %*	*70-130*		*P8G3101*	*07/31/18*	*07/31/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.2 %*	*70-130*		*P8G3101*	*07/31/18*	*07/31/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	07/31/18	07/31/18	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G2607 - General Preparation (GC)										
Blank (P8G2607-BLK1)				Prepared: 07/26/18 Analyzed: 07/29/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0513*		*"*	*0.0600*		*85.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0638*		*"*	*0.0600*		*106*	*75-125*			
LCS (P8G2607-BS1)				Prepared: 07/26/18 Analyzed: 07/29/18						
Benzene	0.0912	0.00100	mg/kg wet	0.100		91.2	70-130			
Toluene	0.0900	0.0100	"	0.100		90.0	70-130			
Ethylbenzene	0.103	0.00500	"	0.100		103	70-130			
Xylene (p/m)	0.192	0.0200	"				70-130			
Xylene (o)	0.0929	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0553*		*"*	*0.0600*		*92.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0582*		*"*	*0.0600*		*97.0*	*75-125*			
LCS Dup (P8G2607-BSD1)				Prepared: 07/26/18 Analyzed: 07/30/18						
Benzene	0.0977	0.00100	mg/kg wet	0.100		97.7	70-130	6.86	20	
Toluene	0.0918	0.0100	"	0.100		91.8	70-130	2.00	20	
Ethylbenzene	0.112	0.00500	"	0.100		112	70-130	8.73	20	
Xylene (p/m)	0.214	0.0200	"				70-130		20	
Xylene (o)	0.113	0.0100	"				70-130		20	
Surrogate: 4-Bromofluorobenzene	*0.0550*		*"*	*0.0600*		*91.7*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0497*		*"*	*0.0600*		*82.8*	*75-125*			
Matrix Spike (P8G2607-MS1)		**Source: 8G23012-04**		Prepared: 07/26/18 Analyzed: 07/29/18						
Benzene	0.0374	0.00111	mg/kg dry	0.111	ND	33.7	80-120			QM-07
Toluene	0.0238	0.0111	"	0.111	ND	21.4	80-120			QM-07
Ethylbenzene	0.0502	0.00556	"	0.111	ND	45.2	80-120			QM-07
Xylene (p/m)	0.00609	0.0222	"		ND		80-120			QM-07
Xylene (o)	0.0514	0.0111	"		ND		80-120			QM-07
Surrogate: 4-Bromofluorobenzene	*0.0743*		*"*	*0.0667*		*111*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0678*		*"*	*0.0667*		*102*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G2607 - General Preparation (GC)										
Matrix Spike Dup (P8G2607-MSD1)	**Source: 8G23012-04**			Prepared: 07/26/18 Analyzed: 07/29/18						
Benzene	0.0572	0.00111	mg/kg dry	0.111	ND	51.5	80-120	41.8	20	QM-07
Toluene	0.0351	0.0111	"	0.111	ND	31.6	80-120	38.5	20	QM-07
Ethylbenzene	0.0710	0.00556	"	0.111	ND	63.9	80-120	34.3	20	QM-07
Xylene (p/m)	0.00787	0.0222	"		ND		80-120		20	QM-07
Xylene (o)	0.0691	0.0111	"		ND		80-120		20	QM-07
Surrogate: 4-Bromofluorobenzene	*0.0790*		*"*	*0.0667*		*118*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0682*		*"*	*0.0667*		*102*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G2401 - % Solids										
Blank (P8G2401-BLK1)				Prepared & Analyzed: 07/24/18						
% Moisture	ND	0.1	%							
Duplicate (P8G2401-DUP1)		**Source: 8G23008-12**		Prepared & Analyzed: 07/24/18						
% Moisture	9.0	0.1	%		10.0			10.5	20	
Duplicate (P8G2401-DUP2)		**Source: 8G23012-04**		Prepared & Analyzed: 07/24/18						
% Moisture	10.0	0.1	%		10.0			0.00	20	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G2407 - General Preparation (GC)										
Blank (P8G2407-BLK1)				Prepared & Analyzed: 07/24/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*116*		*"*	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*67.4*		*"*	*50.0*		*135*	*70-130*			*S-GC*
LCS (P8G2407-BS1)				Prepared & Analyzed: 07/24/18						
C6-C12	1060	25.0	mg/kg wet	1000		106	75-125			
>C12-C28	1070	25.0	"	1000		107	75-125			
Surrogate: 1-Chlorooctane	*123*		*"*	*100*		*123*	*70-130*			
Surrogate: o-Terphenyl	*61.7*		*"*	*50.0*		*123*	*70-130*			
LCS Dup (P8G2407-BSD1)				Prepared & Analyzed: 07/24/18						
C6-C12	1030	25.0	mg/kg wet	1000		103	75-125	2.69	20	
>C12-C28	1020	25.0	"	1000		102	75-125	4.47	20	
Surrogate: 1-Chlorooctane	*110*		*"*	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*59.2*		*"*	*50.0*		*118*	*70-130*			
Matrix Spike (P8G2407-MS1)	**Source: 8G23008-12**			Prepared: 07/24/18 Analyzed: 07/25/18						
C6-C12	1030	27.8	mg/kg dry	1110	ND	92.7	75-125			
>C12-C28	1060	27.8	"	1110	26.2	92.9	75-125			
Surrogate: 1-Chlorooctane	*138*		*"*	*111*		*125*	*70-130*			
Surrogate: o-Terphenyl	*59.5*		*"*	*55.6*		*107*	*70-130*			
Matrix Spike Dup (P8G2407-MSD1)	**Source: 8G23008-12**			Prepared: 07/24/18 Analyzed: 07/25/18						
C6-C12	1050	27.8	mg/kg dry	1110	ND	94.7	75-125	2.17	20	
>C12-C28	1060	27.8	"	1110	26.2	93.4	75-125	0.581	20	
Surrogate: 1-Chlorooctane	*141*		*"*	*111*		*127*	*70-130*			
Surrogate: o-Terphenyl	*60.4*		*"*	*55.6*		*109*	*70-130*			

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8G3101 - General Preparation (GC)										
Blank (P8G3101-BLK1)				Prepared & Analyzed: 07/31/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*101*		*"*	*100*		*101*	*70-130*			
Surrogate: o-Terphenyl	*51.3*		*"*	*50.0*		*103*	*70-130*			
LCS (P8G3101-BS1)				Prepared & Analyzed: 07/31/18						
C6-C12	949	25.0	mg/kg wet	1000		94.9	75-125			
>C12-C28	967	25.0	"	1000		96.7	75-125			
Surrogate: 1-Chlorooctane	*122*		*"*	*100*		*122*	*70-130*			
Surrogate: o-Terphenyl	*46.6*		*"*	*50.0*		*93.3*	*70-130*			
LCS Dup (P8G3101-BSD1)				Prepared & Analyzed: 07/31/18						
C6-C12	936	25.0	mg/kg wet	1000		93.6	75-125	1.36	20	
>C12-C28	961	25.0	"	1000		96.1	75-125	0.557	20	
Surrogate: 1-Chlorooctane	*121*		*"*	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*46.0*		*"*	*50.0*		*92.0*	*70-130*			
Matrix Spike (P8G3101-MS1)	**Source: 8G30007-01**			Prepared & Analyzed: 07/31/18						
C6-C12	992	28.4	mg/kg dry	1140	14.4	86.0	75-125			
>C12-C28	1050	28.4	"	1140	72.4	85.9	75-125			
Surrogate: 1-Chlorooctane	*134*		*"*	*114*		*118*	*70-130*			
Surrogate: o-Terphenyl	*52.3*		*"*	*56.8*		*92.1*	*70-130*			
Matrix Spike Dup (P8G3101-MSD1)	**Source: 8G30007-01**			Prepared & Analyzed: 07/31/18						
C6-C12	996	28.4	mg/kg dry	1140	14.4	86.4	75-125	0.372	20	
>C12-C28	1040	28.4	"	1140	72.4	85.0	75-125	1.05	20	
Surrogate: 1-Chlorooctane	*131*		*"*	*114*		*115*	*70-130*			
Surrogate: o-Terphenyl	*51.8*		*"*	*56.8*		*91.1*	*70-130*			

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS# 2018-094	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 8/8/2018

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green

Company Name: 2M Environmental Services, LLC.

Company Address: 1219 W. University Blvd.

City/State/Zip: Odessa, Texas 79764

Telephone No: (432)230-3763 Fax No:

Sampler Signature:

e-mail: mgreen@2m-environmental.com
rblake@2m-environmental.com

Project Name: Plains COG SRO State 029H

Project #: SRS #:

Project Loc: Eddy County, NM

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 8623012

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TOTAL: TPH: 418.1 / 8015M	TPH: TX 1005 Ext	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	8015B / 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300	TCLP Benzene	TCLP BTEX	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	NSW-1 @ 43"			7/20/2018	1131		1	x								S									x							X
-02	BH-2 @ 41"			7/20/2018	1122		1	x								S									x							X
-03	BH-3 @ 60"			7/20/2018	1145		1	x								S									x							X
-04	BH-4 @ 24"			7/20/2018	1136		1	x								S									x							X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	7-23-18	1424			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL	Date	Time
				7-23-18	1424

Laboratory Comments:

Sample Containers Intact?	N
VOCs Free of Headspace?	N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered	N
by Sampler/Client Rep. ?	N
by Courier? UPS DHL FedEx Lone Star	
Temperature Upon Receipt:	
Received: 5.8 °C	
Adjusted: 3.8 °C Factor 1.0 CF	

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green

2M Environmental Services, LLC.

1219 W. University Blvd.

Odessa, TEXAS 79764

Project: Plains COG SRO State COM 029H

Project Number: SRS#

Location: Eddy County,New Mexico

Lab Order Number: 8H17002

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 08/17/18

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS#	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-2 @ 52"	8H17002-01	Soil	08/14/18 14:00	08-16-2018 16:56

BH-2 @ 52''

8H17002-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8H1701	08/17/18	08/17/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8H1701	08/17/18	08/17/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8H1701	08/17/18	08/17/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8H1701	08/17/18	08/17/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8H1701	08/17/18	08/17/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*131 %*	*75-125*		*P8H1701*	*08/17/18*	*08/17/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*83.9 %*	*75-125*		*P8H1701*	*08/17/18*	*08/17/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**10.0**	0.1	%	1	P8H1712	08/17/18	08/17/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8H1710	08/17/18	08/17/18	TPH 8015M	
>C12-C28	**34.9**	27.8	mg/kg dry	1	P8H1710	08/17/18	08/17/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8H1710	08/17/18	08/17/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*90.8 %*	*70-130*		*P8H1710*	*08/17/18*	*08/17/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P8H1710*	*08/17/18*	*08/17/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**34.9**	27.8	mg/kg dry	1	[CALC]	08/17/18	08/17/18	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8H1701 - General Preparation (GC)										
Blank (P8H1701-BLK1)				Prepared & Analyzed: 08/17/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0491*		*"*	*0.0600*		*81.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0753*		*"*	*0.0600*		*126*	*75-125*			*S-GC*
LCS (P8H1701-BS1)				Prepared & Analyzed: 08/17/18						
Benzene	0.0965	0.00100	mg/kg wet	0.100		96.5	70-130			
Toluene	0.106	0.0100	"	0.100		106	70-130			
Ethylbenzene	0.114	0.00500	"	0.100		114	70-130			
Xylene (p/m)	0.229	0.0200	"				70-130			
Xylene (o)	0.110	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0600*		*"*	*0.0600*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0798*		*"*	*0.0600*		*133*	*75-125*			*S-GC*
LCS Dup (P8H1701-BSD1)				Prepared & Analyzed: 08/17/18						
Benzene	0.0942	0.00100	mg/kg wet	0.100		94.2	70-130	2.36	20	
Toluene	0.101	0.0100	"	0.100		101	70-130	4.76	20	
Ethylbenzene	0.108	0.00500	"	0.100		108	70-130	4.71	20	
Xylene (p/m)	0.218	0.0200	"				70-130		20	
Xylene (o)	0.105	0.0100	"				70-130		20	
Surrogate: 4-Bromofluorobenzene	*0.0797*		*"*	*0.0600*		*133*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0596*		*"*	*0.0600*		*99.2*	*75-125*			
Matrix Spike (P8H1701-MS1)	**Source: 8H17002-01**			Prepared & Analyzed: 08/17/18						
Benzene	0.0892	0.00111	mg/kg dry	0.111	ND	80.2	80-120			
Toluene	0.0963	0.0111	"	0.111	ND	86.7	80-120			
Ethylbenzene	0.110	0.00556	"	0.111	ND	98.9	80-120			
Xylene (p/m)	0.195	0.0222	"		ND		80-120			
Xylene (o)	0.0956	0.0111	"		ND		80-120			
Surrogate: 1,4-Difluorobenzene	*0.0662*		*"*	*0.0667*		*99.4*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0934*		*"*	*0.0667*		*140*	*75-125*			*S-GC*

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8H1701 - General Preparation (GC)										
Matrix Spike Dup (P8H1701-MSD1)	**Source: 8H17002-01**			Prepared & Analyzed: 08/17/18						
Benzene	0.0921	0.00111	mg/kg dry	0.111	ND	82.9	80-120	3.25	20	
Toluene	0.0956	0.0111	"	0.111	ND	86.0	80-120	0.730	20	
Ethylbenzene	0.129	0.00556	"	0.111	ND	116	80-120	15.8	20	
Xylene (p/m)	0.255	0.0222	"		ND		80-120		20	
Xylene (o)	0.118	0.0111	"		ND		80-120		20	
Surrogate: 4-Bromofluorobenzene	*0.0889*		*"*	*0.0667*		*133*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0623*		*"*	*0.0667*		*93.5*	*75-125*			

2M Environmental Services, LLC.	Project: Plains COG SRO State COM 029H	Fax:
1219 W. University Blvd.	Project Number: SRS#	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8H1712 - * DEFAULT PREP *** **										
Blank (P8H1712-BLK1)				Prepared & Analyzed: 08/17/18						
% Moisture	ND	0.1	%							

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8H1710 - TX 1005										
Blank (P8H1710-BLK1)				Prepared & Analyzed: 08/17/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*83.8*		*"*	*100*		*83.8*	*70-130*			
Surrogate: o-Terphenyl	*46.9*		*"*	*50.0*		*93.8*	*70-130*			
LCS (P8H1710-BS1)				Prepared & Analyzed: 08/17/18						
C6-C12	792	25.0	mg/kg wet	1000		79.2	75-125			
>C12-C28	795	25.0	"	1000		79.5	75-125			
Surrogate: 1-Chlorooctane	*92.7*		*"*	*100*		*92.7*	*70-130*			
Surrogate: o-Terphenyl	*42.0*		*"*	*50.0*		*83.9*	*70-130*			
LCS Dup (P8H1710-BSD1)				Prepared & Analyzed: 08/17/18						
C6-C12	791	25.0	mg/kg wet	1000		79.1	75-125	0.168	20	
>C12-C28	875	25.0	"	1000		87.5	75-125	9.66	20	
Surrogate: 1-Chlorooctane	*95.9*		*"*	*100*		*95.9*	*70-130*			
Surrogate: o-Terphenyl	*45.7*		*"*	*50.0*		*91.4*	*70-130*			

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:  Date: 8/17/2018

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-561-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature:
e-mail: mgreen@2m-environmental.com
rblake@2m-environmental.com

Project Name: Plains COG SRO State 029H
Project #: SRS #:
Project Loc: Eddy County, NM
PO #:
Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 8H17002

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TOTAL: TPH: 418.1 8015M	TPH: TX 1005 Ext	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300	TCLP Benzene	TCLP BTEX	RUSH TAT (pre-schedule) 24, 48, 72 hrs	Standard TAT
01	BH-2 @ 52"			8/14/2018	1400		1	x								S	x									x						X	

Special Instructions: Charge sample charges to Plains and rush charges to 2M.

24 hr Rush

Relinquished by:	Date	Time	Received by:	Date	Time
	8-16-18		Joel Mendoza	8-16-18	
Relinquished by: Joel Mendoza	Date 8-16-18	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date 8-16-18	Time 16:58

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep.?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 18.1 °C
Adjusted: °C Factor

Analytical Report 593111

for

2M Enviromental Services LLC

Project Manager: Matt Green

Plains COG SRO State COM # 029H

31-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

31-JUL-18

Project Manager: **Matt Green**
2M Enviromental Services LLC
1219 W University Blvd
Odessa, TX 79764

Reference: XENCO Report No(s): **593111**
Plains COG SRO State COM # 029H
Project Address: Eddy County,NM

Matt Green:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 593111. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 593111 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 593111

2M Enviromental Services LLC, Odessa, TX

Plains COG SRO State COM # 029H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WC-1	S	07-18-18 15:00		Not Analyzed

Client Name: 2M Enviromental Services LLC

Project Name: Plains COG SRO State COM # 029H

Project ID:
Work Order Number(s): *593111*

Report Date: *31-JUL-18*
Date Received: *07/20/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

CHAIN OF CUSTODY

Page ___ Of ___

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | San Antonio, Texas (210-509-3334) | Phoenix, Arizona (480-355-0900)

Dallas Texas (214-902-0300) | Midland, Texas (432-704-5251)

www.xenco.com

Xenco Quote # | Xenco Job # 593111

Client / Reporting Information

Company Name / Branch: 2M Environmental Services, LLC

Company Address: 1219 W. University Blvd. Odessa,TX

Email: mgreen@2m-environmental.com | Phone No: 4322303763

Project Contact: Matt Green

Samplers's Name: Matt Green

Project Information

Project Name/Number: Plains COG SRO State COM # 029H

Project Location: Eddy County, NM

Invoice To: Plains

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Analytical Information: TPH TX1005 Extended 35	BTEX 8021B	Chloride 300	Norm	Field Comments
1	WC-1		7/18/2018	1500	Soil	1								X				X	
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time (Business days)

- [ ] Same Day TAT
- [X] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Matthew Green	7-20-18 11:10				
2					7-20-18	Joel Mendoza
3	Joel Mendoza	7.20.18 12:3				
4						
5				Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: 2M Enviromental Services LLC

Date/ Time Received: 07/20/2018 12:33:00 PM

Work Order #: 593111

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**N/A**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Shawnee Gomez Date: 07/20/2018

Checklist reviewed by: Holly Taylor Date: 07/20/2018

2M Enviromental Services LLC

ATTN: Matt Green
1219 W University Blvd
Odessa, TX 79764
432-614-6793

Sample Type:	Soil	Sample Date:	07/18/18
Sample Condition:	Intact/ Ambient deg C	Sample Time:	15:00
Lab ID#:	593111-001	Receiving Date:	07/20/18
Project Name:	Plains COG SRO State COM # 029H	Analysis Date:	07/27/18
Project # :		Analysis Time:	15:08
Project Location:	Eddy Co, NM	Field Code:	WC-1

Analysis Description	Analysis Results pCi/G	Analysis Error +/- 2s	Analysis Results Bq/G	Analysis Error +/- 2s	Analysis Test Method	Analysis Technician
Ra-226	<2.01	N/A	<.07	N/A	EPA 901.1M	KEB
Ra-228	<.83	N/A	<.03	N/A	EPA 901.1M	KEB
Pb-210	<2.28	N/A	<.08	N/A	EPA 901.1M	KEB
Th-228	<4.43	N/A	<.16	N/A	EPA 901.1M	KEB
Bi-214	<.35	N/A	<.01	N/A	EPA 901.1M	KEB
Total Activity	0.00	N/A	0.00	N/A	EPA 901.1M	KEB

Notes:

Quality Assurance Review

Site Name: *COG SRO State Com No. 029H Release* **Date:** *9/4/2018*
2M Environmental Project #: *8150-02* **Site Location:** *Eddy County, New Mexico*

Photographic Documentation

Photograph No. 1 **Date:** **6/20/2018** **Direction:** **South** **Description:** **View of Impacted Area.**	
Photograph No. 2 **Date:** **6/20/2018** **Direction:** **Southwest** **Description:** **View of Impacted Area.**	

Site Name: *COG SRO State Com No. 029H Release* **Date:** *9/4/2018*
2M Environmental Project #: *8150-02* **Site Location:** *Eddy County, New Mexico*

Photographic Documentation

Photograph No. 3 **Date:** **6/26/2018** **Direction:** **South** **Description:** **View of excavation activities.**	
Photograph No. 4 **Date:** **6/26/2018** **Direction:** **Southwest** **Description:** **View of excavation activities.**	

Site Name: *COG SRO State Com No. 029H Release* **Date:** *9/4/2018*
2M Environmental Project #: *8150-02* **Site Location:** *Eddy County, New Mexico*

Photographic Documentation

Photograph No. 5 **Date:** **7/20/2018** **Direction:** **South** **Description:** **View of excavation activities.**	
Photograph No. 6 **Date:** **7/20/2018** **Direction:** **South** **Description:** **View of excavation activities.**	

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this Documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Plains Pipeline, LP
505 Big Spring St, Suite 600
Midland, Texas 79701

2. **Originating Site:** COG SRO State Com No. 029H

3. **Location of Material (Street Address, City, State or ULSTR):**
1911 Connie Road, Carlsbad, New Mexico

4. **Source and Description of Waste:**
Non-Refined hydrocarbon waste generated during various maintenance activities related to permitted pipelines and/or pipeline facilities.

Estimated Volume 85 yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Amber Groves, representative or authorized agent for Plains Pipeline, LP do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Amber Groves, representative for Plains Pipeline, LP do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:**

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Lea Land, Inc. – NMOCD Permit #NM-01-035

Address of Facility: Mile Marker 64, Highway 62, Carlsbad, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: _____ TITLE: _____ DATE: _____

SIGNATURE: _____ TELEPHONE NO.: _____

Surface Waste Management Facility Authorized Agent

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Plains Pipeline	Contact Camille Bryant
Address 1911 Connie Rd, Carlsbad NM 88220	Telephone No. (575)441-1099
Facility Name COG SRO State Com No. 029H	Facility Type Tank Battery

Surface Owner NMSLO	Mineral Owner NMSLO	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	3	26S	28E					Lea

Latitude 32.07839 **Longitude** -104.07831 NAD83

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 9 bbls	Volume Recovered 5 bbls
Source of Release ½ " Valve	Date and Hour of Occurrence 6/12/2018 @ 9:22 AM	Date and Hour of Discovery 6/12/2018 @ 9:22 AM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A ½" valve failure coming from the discharge relief valve.

Describe Area Affected and Cleanup Action Taken.*
Release is confined to the containment area of the lact unit and the production pad. All areas will be remediated as per current NMOCD guidelines.

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: Camille Bryant	Approved by Environmental Specialist:	
Title: Remediation Supervisor	Approval Date:	Expiration Date:
E-mail Address: cjbryant@paalp.com	Conditions of Approval:	Attached ☐
Date: 6/13/2018 Phone: 575-441-1099		

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4814
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: Camille Bryant Title: Remediation Supervisor

Signature: Camille Bryant Date: 9/19/18

email: cjbryant@pnlp.com Telephone: 575-441-1099

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____