Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2136249082
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amber Groves Title: Remediation Specialist

Signature: Amber Groves Date: 2/1/2021

email: algroves@paalp.com Telephone: (575)200-5517

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 03/17/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

12600 WEST CO RD 91

MIDLAND, TX 79707

OFFICE: 432.653.4203

SOIL REMEDIATION ACTIVITIES CLOSURE REPORT

PLAINS MARKETING, L.P.

THOMAS TRUCK STATION RELEASE

EDDY COUNTY, NM

NMOCD INCIDENT #: nAPP2136249082

SRS #: 2021-113

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Tables

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January 26, 2022

New Mexico Oil Conservation Division District II
811 South 1st
Artesia, New Mexico 88210

Re: **Soil Remediation Activities Closure Report**
Thomas Truck Station Release
Unit Letter I, Section 23, Township 23S, Range 31E
GPS: N 32.2864°, W -103.7402°
Eddy County, New Mexico
NMOCD Incident #: nAPP2136249082
SRS #: 2021-113

1. Introduction

Dean Companies, Inc. (Dean) is pleased to present this Soil Remediation Activities Closure Report to Plains Marketing, L.P. (Plains) to document the field soil remediation activities that were conducted at the Thomas Truck Station Release site. The crude oil release occurred, approximately 20.80 miles east of Loving in Eddy County, New Mexico in Unit Letter I, Section 23, Township 23S, and Range 31E. The GPS coordinates for the site is N 32.2864° and W -103.7402°. A "Site Location Map" and "Topographic Map" are provided as Figures 1 and 2, respectively. The surface is owned by the Bureau of Land Management (BLM).

2. Release Description and Response

The crude oil release which occurred at the Thomas Station was attributed to a pump seal failure on the LACT unit on December 27, 2021. The release was reported as approximately fifteen (15) barrels (bbls) of crude released with no (0) bbls recovered for a net loss of fifteen (15) bbls of crude oil. The release occurred on the facilities tank battery pad with surface land owned by the Bureau of Land Management (BLM). The releases measured approximately thirty (30) feet (ft) in length by seventy-five (75) ft in width with a maximum depth of two (2) ft below ground surface (bgs).

On December 27, 2021, Plains submitted the initial C-141 Form to the NMOCD and BLM. See Appendix A for filed C-141. Dean was assigned management oversite responsibilities for impacted soil delineation, remediation, soil sampling, site restoration, and reporting activities by Plains on December 28, 2021.

3. NMOCD Regulatory Limits

New Mexico Oil Conservation Division (NMOCD) assessment and cleanup levels for hydrocarbon and produced water releases are based on depth to groundwater and follow the criteria in the revised August 2018 Title 19 Chapter 15 Part 29 New Mexico Administration Code (19.15.29 NMAC) regulations. Groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and the New Mexico Bureau of Geology & Mineral Resources (NMBGMR) were accessed to determine if any registered water wells are located in or near Unit Letter I, Section 23, Township 23S, and Range 31E. Neither of the two databases identified any registered water wells within a half mile of Unit Letter I, Section 23, Township 23S, and Range 31E. The nearest water well (C 02348) is approximately one (1) mile south of the site with a depth to groundwater at approximately 430 feet bgs. In addition, according to the Bureau of Land Management (BLM), the site is located in an area of low potential karst topography. See Figure 3 “Site Location Relative to Known Regional Karst Topography”. As outlined in 19.15.29.12.B. (4) NMAC, the release does not occur in referenced sensitive areas, with the nearest water body feature being the Pecos River located approximately 14.94 miles west southwest of the site. With the release located on a pad and no water wells located within a ½-mile radius of site, the NMOCD restoration and cleanup levels for soils impacted by hydrocarbons in areas of low potential karst topography are as follow:

- Chloride 600 mg/Kg
- Total TPH 100 mg/Kg
- Benzene 10 mg/Kg
- Total BTEX 50 mg/Kg

4. Initial Release Soil Delineation Assessment with Sample Analysis

On December 30, 2021, Dean personnel were onsite to perform soil assessment activities at the release. A hand auger was utilized to collect soil samples from three (3) auger hole locations (AH-1, AH-2, and AH-3) within the release area. Grab soil samples were collected from the three (3) auger holes from surface to two (2) ft at one (1) ft intervals and placed into laboratory-provided sample containers, labeled, stored on ice, and transported under proper chain-of-custody documentation to PBELAB for analysis of total petroleum hydrocarbons (TPH) utilizing Method SW-846 8015M,

benzene, toluene, ethylbenzene, and xylenes (BTEX) utilizing Method SW-846 8021B, and chlorides utilizing Method 300.0. See Figure 3 “Delineation Soil Sample Location Map”. The Benzene concentrations exceeded the NMOCD standards of 10 milligrams per kilograms (mg/Kg) for soil samples AH-1 Surface (18.5 mg/Kg) and AH-2 Surface (39.1 mg/Kg). All remaining soil samples analyzed for Benzene were either below method detection limits (MDL) or the NMOCD standard. Total BTEX concentrations exceeded the NMOCD standards of 50 mg/Kg for soil samples AH-1 Surface (753.60 mg/Kg), AH-2 Surface (1,708.1 mg/Kg), and AH-3 Surface (415.57 mg/Kg). All remaining soil samples analyzed for total BTEX were either below MDL or the NMOCD standards. The total TPH concentrations exceeded the NMOCD standards of 100 mg/Kg for soil samples AH-1 Surface (20,060 mg/Kg), AH-1 @ 1’ (1,113 mg/Kg), AH-2 Surface (50,740 mg/Kg), AH-2 @ 1’ (1,906 mg/Kg), AH-3 Surface (31,180 mg/Kg), and AH-3 @ 1’ (107 mg/Kg). All remaining soil samples analyzed for Total TPH were below MDL. The chloride concentration exceeded the NMOCD standards of 600 mg/Kg for soil sample AH-3 Surface (799 mg/Kg). The chloride concentrations for the remaining samples were below the NMOCD standard of 600 mg/Kg. See Table 1 for initial delineation analytical results. Laboratory reports containing analytical methods, results, and chain-of-custody documents are included in Appendix B.

5. Remediation Activities with Soil Sample Analysis

Between December 30, 2021, and January 5, 2022, Dean Personnel conducted oversite of soil delineation, remediation, and sampling activities at the site. Remediation commenced utilizing a backhoe and hand excavation of hydrocarbon impacted soils adjacent to the LACT unit and ancillary piping with the excavated soils stockpiled on plastic. In order to complete delineation and remediation of the release, field screening utilizing a photoionization detector (PID) and chloride field test kits was conducted on the soils. Based on field PID and chloride screening the site was initially excavated to depths ranging from eight (8) inches (in) to two (2) ft bgs. The release was contained on the pad adjacent to the LACT unit with excavation dimensions of approximately ninety (90) ft in length by fifteen (15) to thirty (30) ft in width.

Upon completion of the initial release, seven (7) composite bottom hole samples (BH-1 @ 8”, BH-2 @ 2’ through BH-7 @ 2’) along with seven (7) wall composite samples (SW-1 @ 1’, SW-2 @ 1’, WW-1 @ 4’, EW-1 @ 1’, NW-1 @ 1’, NW-2 @ 1’, and NW-3 @ 1’) were collected based on a 200 square foot grid 5-point composite and submitted to PBELAB for analysis of TPH, BTEX and chlorides. Analytical results for the samples were below the NMOCD Recommended Remediation Action Level (RRAL) for benzene, BTEX, TPH and chlorides. See Table 2 for confirmation analytical results. See Figures 5 and 6 for bottom and side wall sample locations. Laboratory reports containing analytical

methods, results, and chain-of-custody documents are included in Appendix B. See attached Photographs in Appendix C.

6. Soil Disposal and Closure Request

On January 28, 2021, approximately 96 cubic yards of soil was transported offsite for disposal at Northern Delaware Basin Landfarm in Jal, New Mexico. The site was then backfilled with locally sourced, non-impacted soil and brought up to surface grade and contoured to match surrounding topography. Manifests are available upon request.

With completion of the vertical and horizontal delineation, remediation of accessible soils, and backfilling of the excavation with locally sourced non-impacted soils, Plains respectfully requests that the NMOCD consider the site for closure. A C-141 deferral is attached to the front of this report.

If you have any questions, or if additional information is required, please feel free to contact Amber Groves (email: ALGroves@paalp.com, cell: 575.200.7717) of Plains or Elizbeth Stuart (email: elizabethstuart@deandigs.com, cell: 432.227.5369) or Jeff Kindley (email: jeffreykindley@deandigs.com cell: 432.230.0920) of Dean.

Sincerely,

Elizabeth Stuart
Project Manager

Jeffrey Kindley, PG.
Professional Geologist

TABLES

Chemistry Table 1

Delineation Sampling of Benzene, BTEX, Chlorides, and TPH in soil

Plains Marketing, L.P.

Thomas Station Release

Eddy County, New Mexico

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
AH-1 Surface	12/30/21	Surf	GRAB	SOIL	18.5	237	87.5	410.6	753.60	147	6,220	11,600	17,820	2,240	20,060
AH-1 @ 1'	12/30/21	1'	GRAB	SOIL	<0.0215	0.0839	0.117	0.804	1.0049	25.1	260	700	960	153	1,113
AH-1 @ 2'	12/30/21	2'	GRAB	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	2.4	<26.0	<26.0	<26.0	<26.0	<26.0
AH-2 Surface	12/30/21	Surf	GRAB	SOIL	39.1	558	186	925	1,708.1	31.8	19,300	26,800	46,100	4,640	50,740
AH-2 @ 1'	12/30/21	1'	GRAB	SOIL	0.00151	0.0241	0.0349	0.19228	0.25279	21.8	601	1,080	1,681	225	1,906
AH-2 @ 2'	12/30/21	2'	GRAB	SOIL	0.00899	0.0165	0.00176	0.00723	0.03448	3.28	27.2	<27.2	<27.2	<27.2	<27.2
AH-3 Surface	12/30/21	Surf	GRAB	SOIL	8.67	120	46.1	240.8	415.57	799	9,230	18,900	28,130	3,050	31,180
AH-3 @ 1'	12/30/21	1'	GRAB	SOIL	<0.00104	0.00144	<0.00104	0.00264	0.00408	46.6	<26.0	107	107	<26.0	107
AH-3 @ 2'	12/30/21	2'	GRAB	SOIL	<0.00106	<0.00106	<0.00106	<0.00213	<0.00106	10.9	<26.6	<26.6	<26.6	<26.6	<26.6
NMOCD Recommended Remediation Action Level					10	-	-	-	**50**	**600**	-	-	-	-	**100**

Exceeds NMOCD Recommended RAL

Chemistry Table 2

Confirmation Sampling of Benzene, BTEX, Chlorides, and TPH in Soil

Plains Marketing, L.P.

Thomas Station Release

Eddy County, New Mexico

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
BH-1 @ 8"	01/05/22	8"	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	7.73	<25.8	<25.8	<25.8	<25.8	<25.8
BH-2 @ 2'	01/05/22	2'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	6.31	<25.8	27	27	<25.8	27
BH-3 @ 2'	01/05/22	2'	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00206	<0.00103	7.67	<25.8	<25.8	<25.8	<25.8	<25.8
BH-4 @ 2'	01/05/22	2'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	20.3	<25.5	<25.5	<25.5	<25.5	<25.5
BH-5 @ 2'	01/05/22	2'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	20.4	<25.5	<25.5	<25.5	<25.5	<25.5
BH-6 @ 2'	01/05/22	2'	COMP	SOIL	<0.00103	0.00273	<0.00103	<0.00206	0.00273	26.5	<25.8	<25.8	<25.8	<25.8	<25.8
BH-7 @ 2'	01/05/22	2'	COMP	SOIL	<0.00106	0.00137	<0.00106	0.00694	0.00831	67.9	<26.6	29	29	<26.6	29
SW-1 @ 1'	01/05/22	1'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	19.4	<26.0	<26.0	<26.0	<26.0	<26.0
SW-2 @ 1 '	01/05/22	1'	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00208	<0.00104	9.51	<26.0	<26.0	<26.0	<26.0	<26.0
WW-1 @ 4"	01/05/22	4"	COMP	SOIL	<0.00104	<0.00104	<0.00104	0.00624	0.00624	79.9	<26.0	26.2	26.2	<26.0	26.2
EW-1 @ 1'	01/05/22	1'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	2.88	<25.5	<25.5	<25.5	<25.5	<25.5
NW-1 @ 1'	01/05/22	1'	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00204	<0.00102	9.17	<25.5	<25.5	<25.5	<25.5	<25.5
NW-2 @ 1'	01/05/22	1'	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00202	<0.00101	15.1	<25.3	<25.3	<25.3	<25.3	<25.3
NW-3 @ 1'	01/05/22	1'	COMP	SOIL	<0.00103	0.00141	<0.00103	<0.00206	0.00141	5.75	<25.8	<25.8	<25.8	<25.8	<25.8
NMOCD Recommended Remediation Action Level					10	-	-	-	**50**	**600**	-	-	-	-	**100**

Exceeds NMOCD Recommended RAL

Soils were permanently removed from ground and disposed off at landfill

FIGURES

Figure 1

Site Location Map

Plains Marketing, LLC

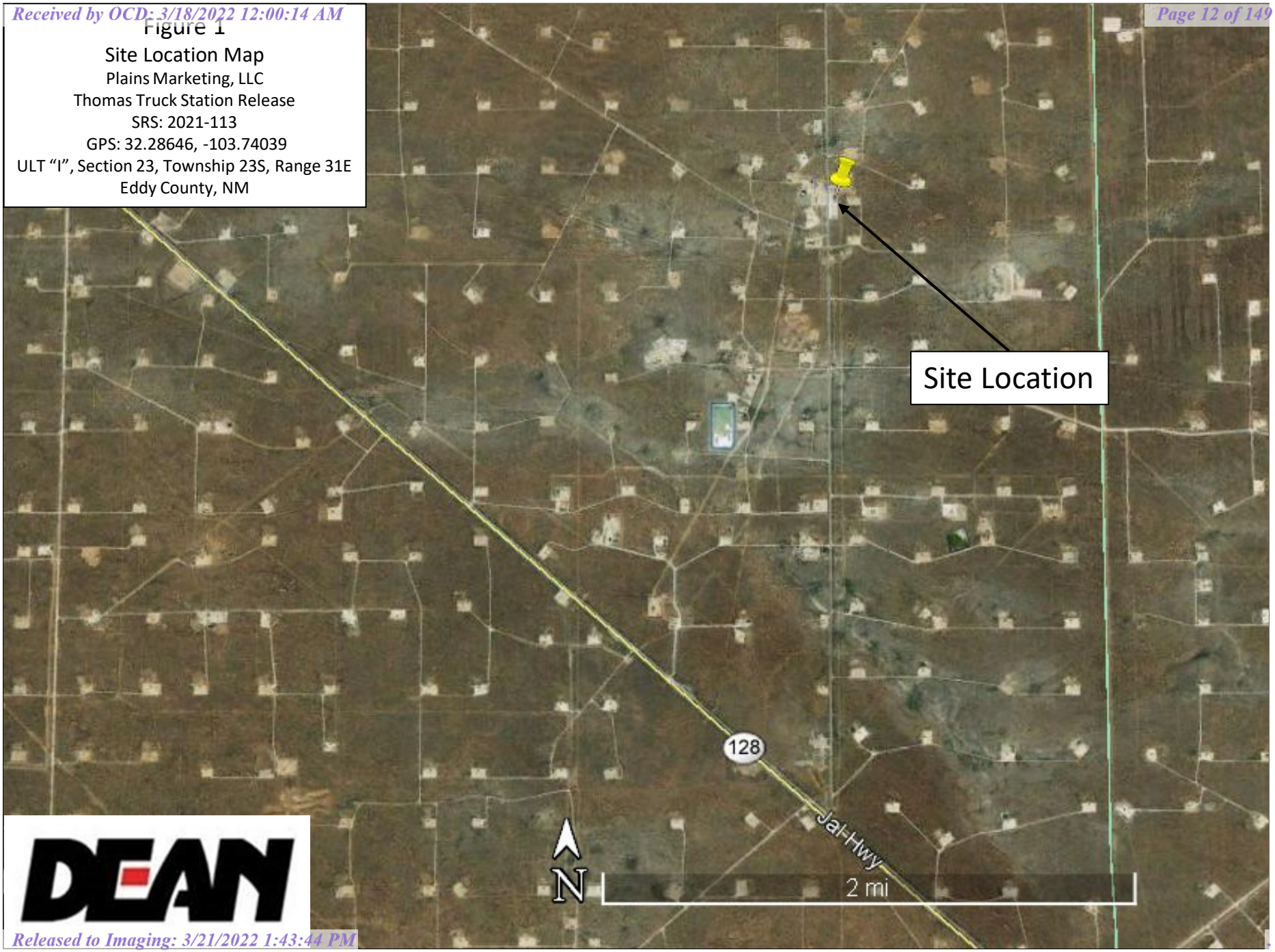
Thomas Truck Station Release

SRS: 2021-113

GPS: 32.28646, -103.74039

ULT "I", Section 23, Township 23S, Range 31E

Eddy County, NM



DEAN

Figure 2

Topographic Map

Plains Marketing, LLC

Thomas Truck Station Release

SRS: 2021-113

GPS: 32.28646, -103.74039

ULT "I", Section 23, Township 23S, Range 31E

Eddy County, NM

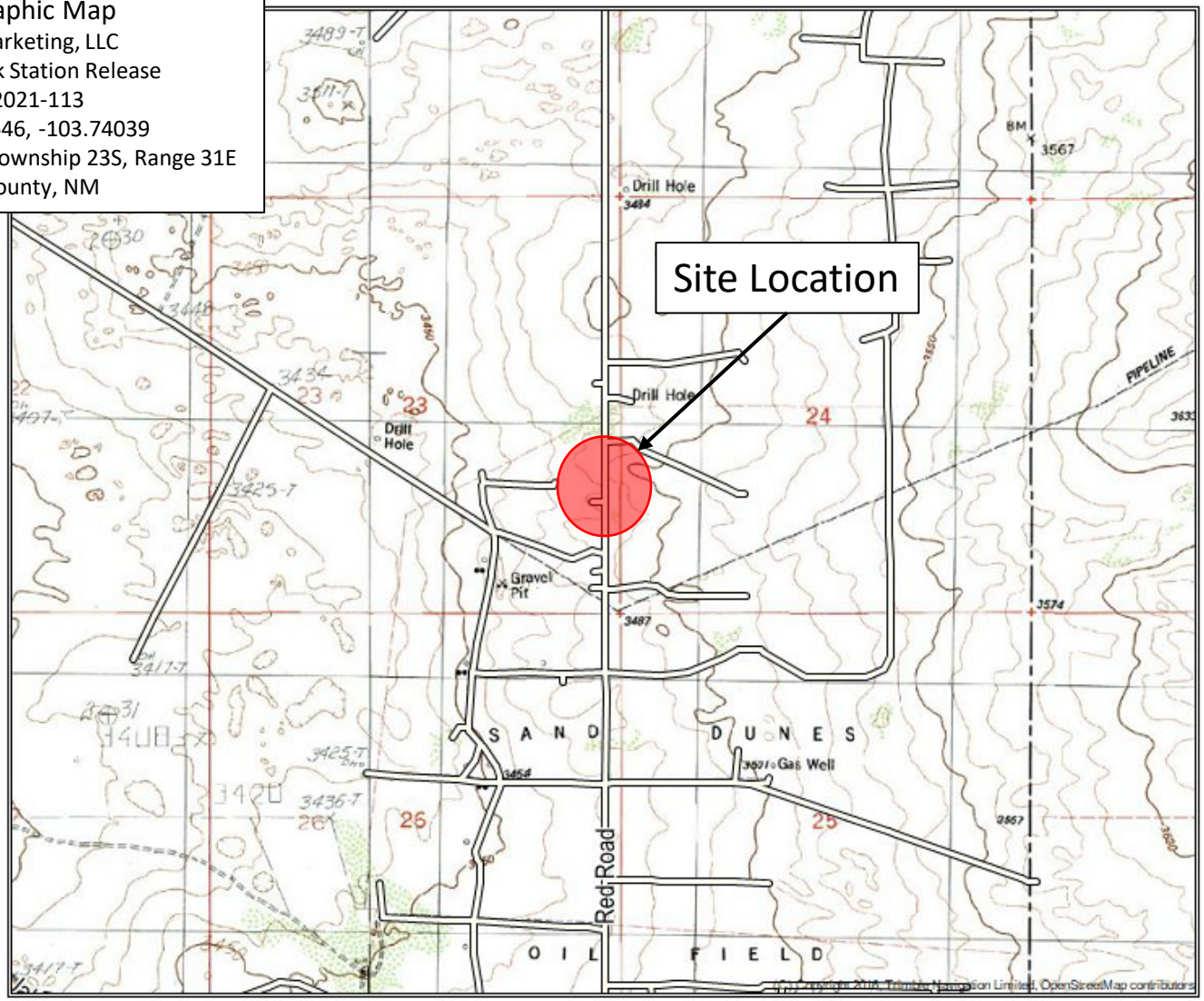


Figure 3

Site Location Relative to Known Regional Karst Topography Map

Plains Marketing, LLC
Thomas Truck Station Release
SRS: 2021-113
GPS: 32.28646, -103.74039
ULT "I", Section 23, Township 23S, Range 31E
Eddy County, NM

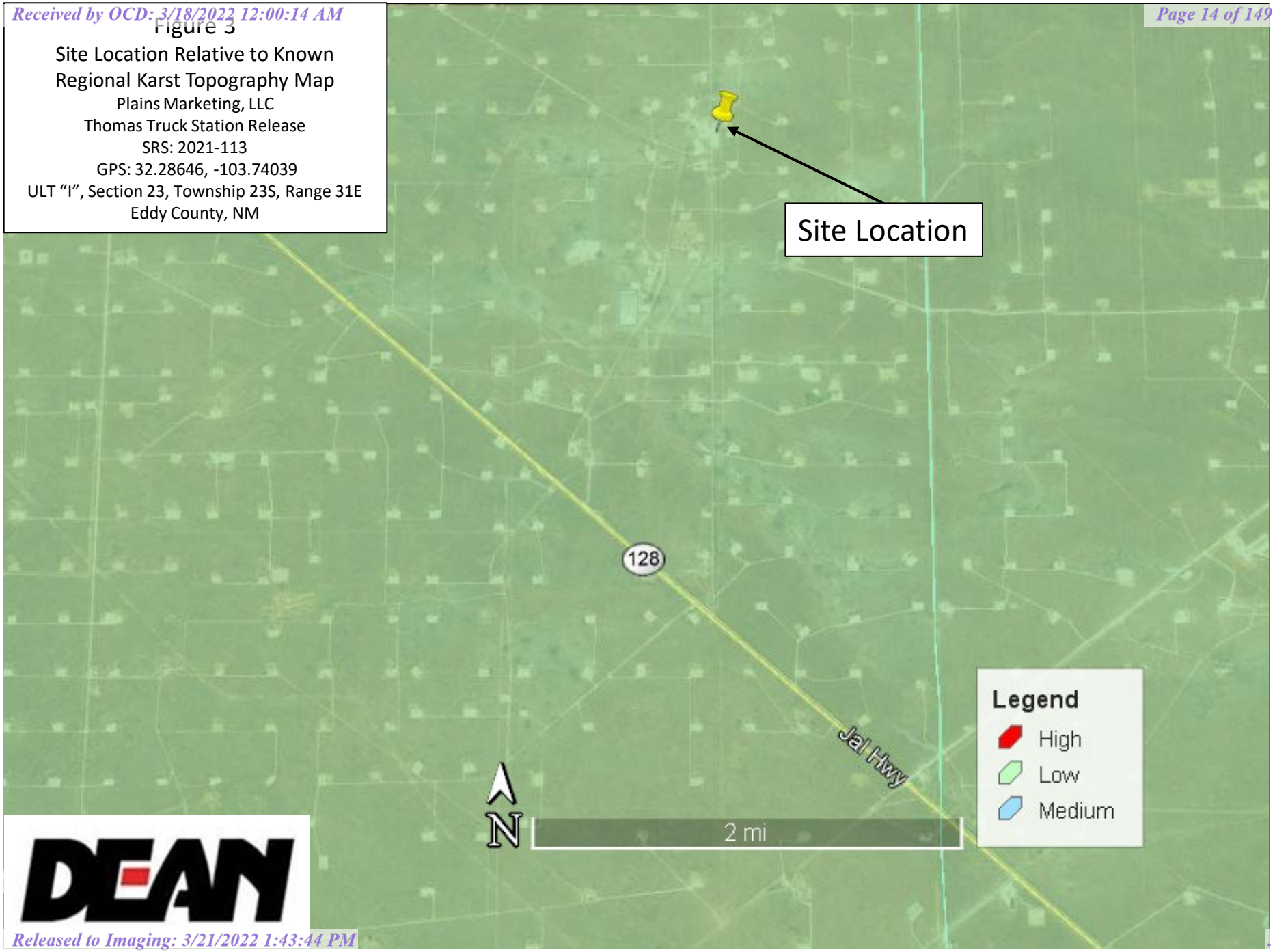


Figure 4

Delineation Soil Sample Location Map

Plains Marketing LLC

Thomas Truck Station Release

SRS: 2021-113

GPS: 32.28646, -103.74039

ULT "I", Section 23, Township 23S, Range 31E

Eddy County, NM

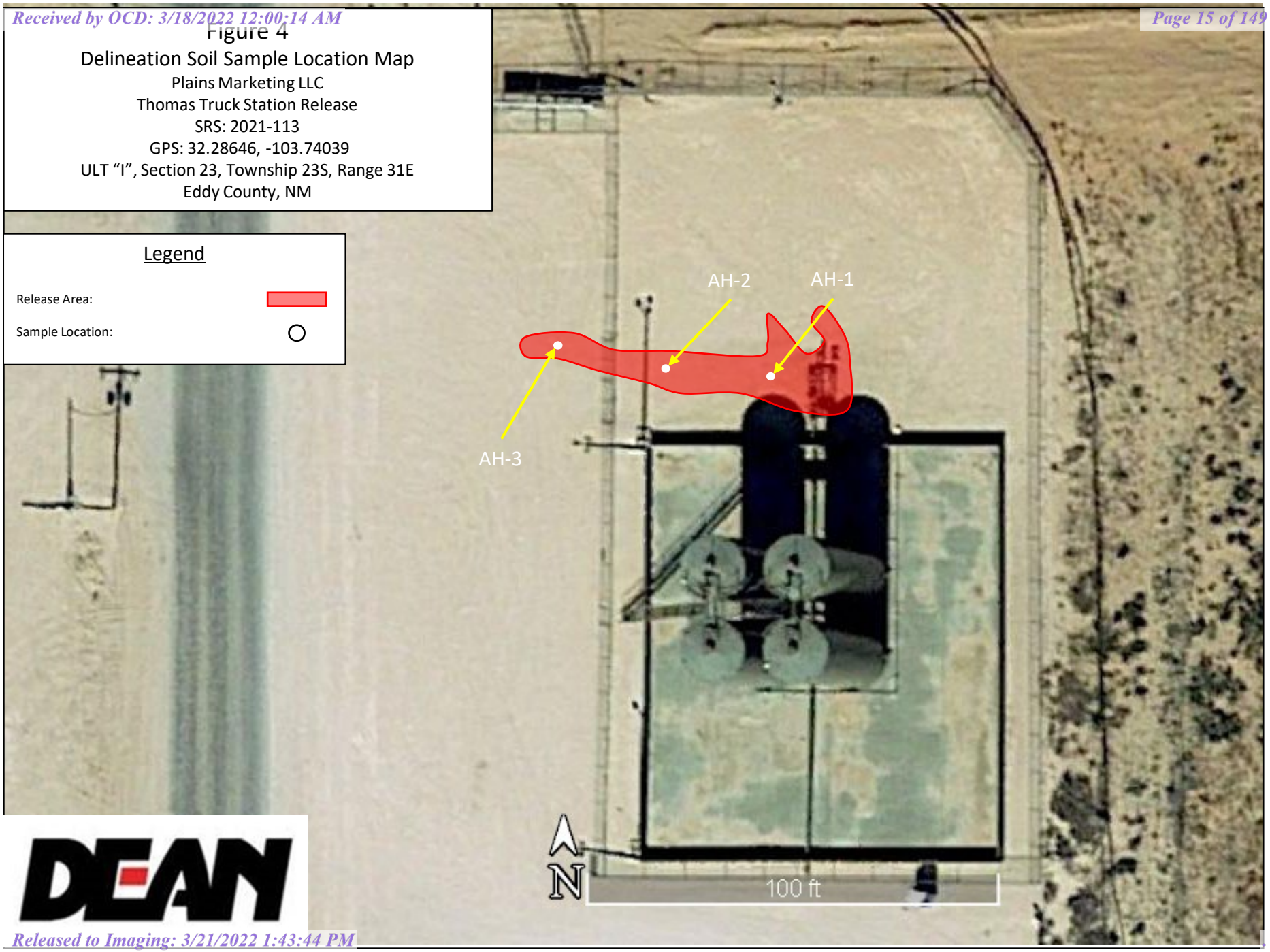
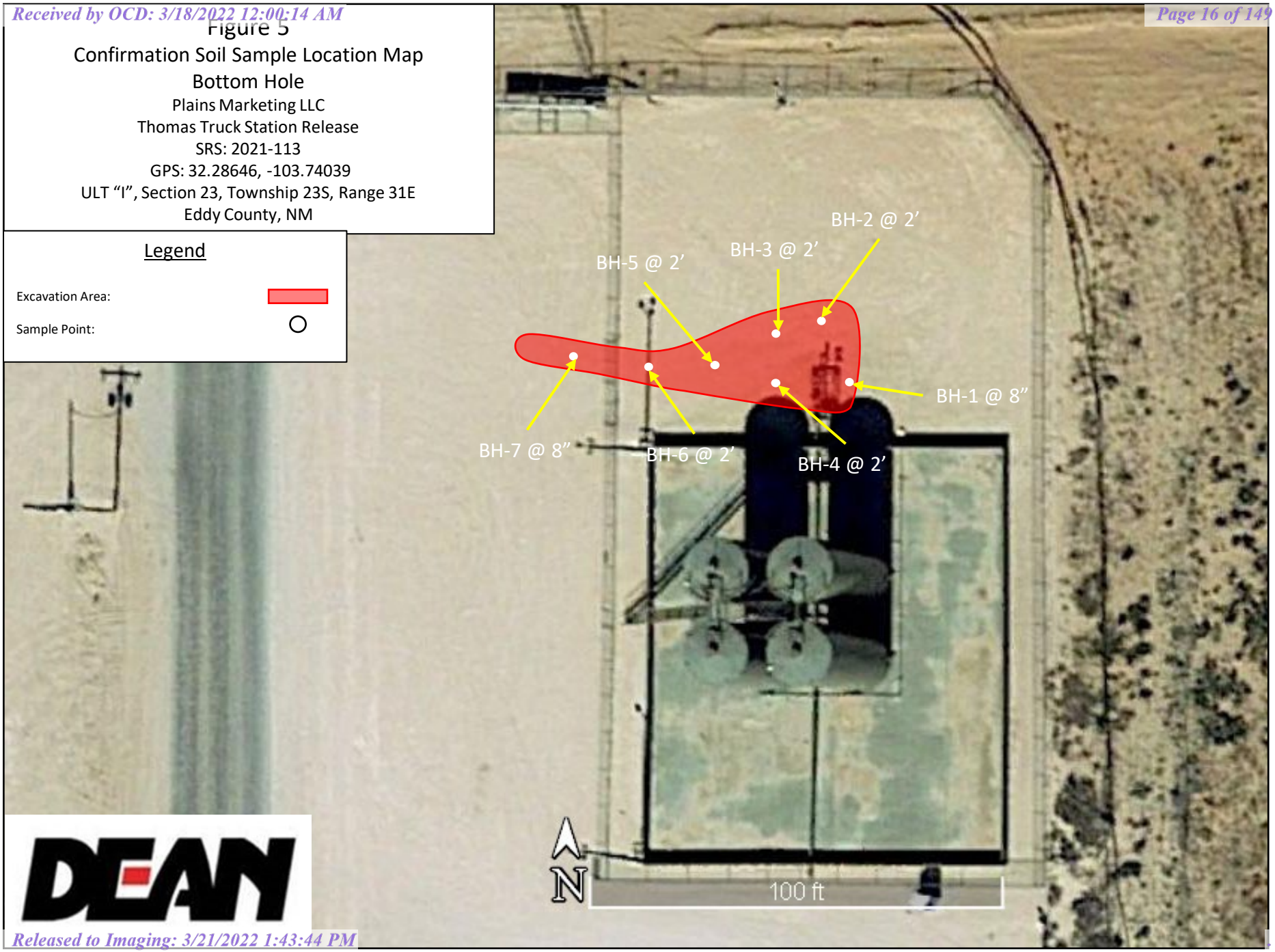


Figure 5
Confirmation Soil Sample Location Map
Bottom Hole
Plains Marketing LLC
Thomas Truck Station Release
SRS: 2021-113
GPS: 32.28646, -103.74039
ULT "I", Section 23, Township 23S, Range 31E
Eddy County, NM

Legend

Excavation Area:

Sample Point:



DEAN

Figure 6

Confirmation Soil Sample Location Map

Side Wall

Plains Marketing LLC

Thomas Truck Station Release

SRS: 2021-113

GPS: 32.28646, -103.74039

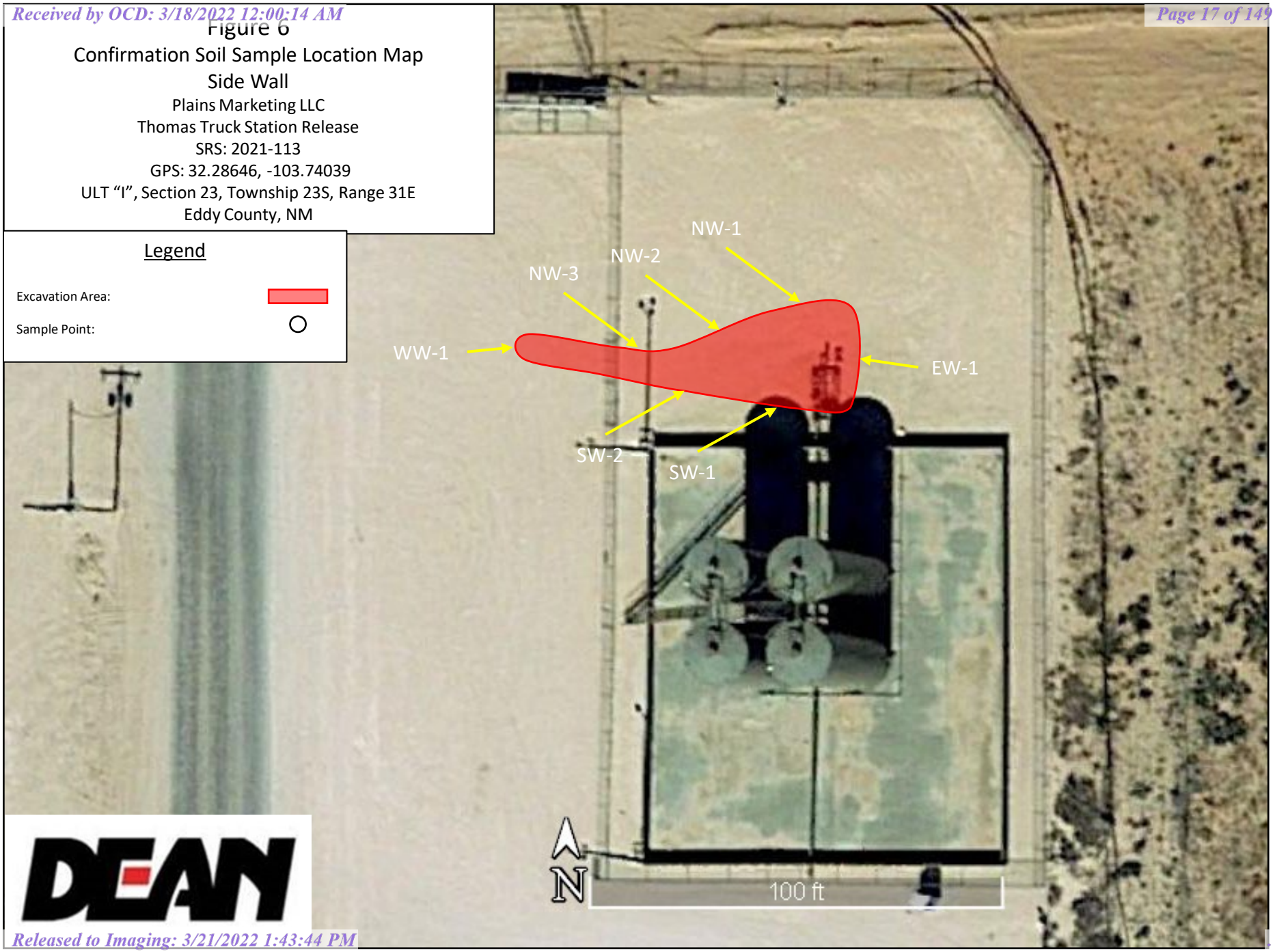
ULT "I", Section 23, Township 23S, Range 31E

Eddy County, NM

Legend

Excavation Area:

Sample Point:



DEAN

APPENDIX A
NMOCD C-141 FORM

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2136249082
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Plains Marketing, L.P.	OGRID 713291
Contact Name Amber Groves	Contact Telephone 575-200-5517
Contact email algroves@paalp.com	Incident # *(assigned by OCD)*
Contact mailing address 3112 W. US Hwy 82, Lovington, NM 88260	

Location of Release Source

Latitude 32.28646 Longitude -103.74039
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Plains Marketing Thomas Station	Site Type Sales LACT
Date Release Discovered 04/16/2021 12/27/2021/rlm	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
I	23	23S	31E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 15 bbls	Volume Recovered (bbls) 0 bbls
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release Pump seal failure on the sales LACT.		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2136249082
District RP	
Facility ID	
Application ID	

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

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: Amber Groves Title: Remediation Coordinator

Signature: Amber Groves Date: 12/30/2021

email: algroves@paalp.com Telephone: (575)200-5517

OCD Only

Received by: Date:

Amber L Groves

From: Alan Swartz
Sent: Thursday, December 30, 2021 1:20 PM
To: Amber L Groves
Subject: Thomas Truck Station, Spill Calculation for 12/27/21

Here are the volume calculations for the Thomas Truck Station release that occurred on 12/27/21.

10' X 20' X .5" X .0154 = 1.54 bbls
10' X 15' X 6" X .0154 = 13.86 bbls
Total of 15.4

Alan Swartz
District Manager
Plains Marketing L.P.
Hobbs NM, Pecos TX
Paswartz@paalp.com
Office: 575-393-5611
Cell: 580-339-3608

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	OGRID: 34053
	Action Number: 69785
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/3/2022

APPENDIX B
LABORATORY ANALYTICAL REPORTS

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

PBELAB

Analytical Report

Prepared for:

Jeff Kindley

Dean

12600 W County Rd 91

Midland, TX 79707

Project: Plains-Thomas Station Remediation

Project Number: PP-21255

Location: Eddy County, NM

Lab Order Number: 2A03001

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 01/06/22

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ Surface	2A03001-01	Soil	12/30/21 08:00	01-03-2022 08:59
AH-1 @ 1'	2A03001-02	Soil	12/30/21 08:05	01-03-2022 08:59
AH-1 @ 2'	2A03001-03	Soil	12/30/21 08:11	01-03-2022 08:59
AH-2 @ Surface	2A03001-07	Soil	12/30/21 08:40	01-03-2022 08:59
AH-2 @ 1'	2A03001-08	Soil	12/30/21 08:42	01-03-2022 08:59
AH-2 @ 2'	2A03001-09	Soil	12/30/21 08:47	01-03-2022 08:59
AH-3 @ Surface	2A03001-13	Soil	12/30/21 09:02	01-03-2022 08:59
AH-3 @ 1'	2A03001-14	Soil	12/30/21 09:12	01-03-2022 08:59
AH-3 @ 2'	2A03001-15	Soil	12/30/21 09:15	01-03-2022 08:59

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

AH-1 @ Surface

2A03001-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	**18.5**	0.602	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 17:26	EPA 8021B	
Toluene	**237**	0.602	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 17:26	EPA 8021B	
Ethylbenzene	**87.5**	0.602	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 17:26	EPA 8021B	
Xylene (p/m)	**319**	1.20	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 17:26	EPA 8021B	
Xylene (o)	**91.6**	0.602	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 17:26	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*93.9 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 17:26*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*90.8 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 17:26*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**147**	1.20	mg/kg dry	1	P2A0305	01/03/22 13:20	01/04/22 08:29	EPA 300.0	
% Moisture	**17.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**6220**	301	mg/kg dry	10	P2A0308	01/03/22 16:00	01/04/22 07:14	TPH 8015M	
>C12-C28	**11600**	301	mg/kg dry	10	P2A0308	01/03/22 16:00	01/04/22 07:14	TPH 8015M	
>C28-C35	**2240**	301	mg/kg dry	10	P2A0308	01/03/22 16:00	01/04/22 07:14	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 07:14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*121 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 07:14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**20000**	301	mg/kg dry	10	[CALC]	01/03/22 16:00	01/04/22 07:14	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

AH-1 @ 1'

2A03001-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0215	mg/kg dry	20	P2A0306	01/03/22 13:28	01/04/22 17:47	EPA 8021B	
Toluene	**0.0839**	0.0215	mg/kg dry	20	P2A0306	01/03/22 13:28	01/04/22 17:47	EPA 8021B	
Ethylbenzene	**0.117**	0.0215	mg/kg dry	20	P2A0306	01/03/22 13:28	01/04/22 17:47	EPA 8021B	
Xylene (p/m)	**0.632**	0.0430	mg/kg dry	20	P2A0306	01/03/22 13:28	01/04/22 17:47	EPA 8021B	
Xylene (o)	**0.172**	0.0215	mg/kg dry	20	P2A0306	01/03/22 13:28	01/04/22 17:47	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*100 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 17:47*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*99.8 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 17:47*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**25.1**	1.08	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 18:48	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**260**	134	mg/kg dry	5	P2A0308	01/03/22 16:00	01/04/22 07:37	TPH 8015M	
>C12-C28	**700**	134	mg/kg dry	5	P2A0308	01/03/22 16:00	01/04/22 07:37	TPH 8015M	
>C28-C35	**153**	134	mg/kg dry	5	P2A0308	01/03/22 16:00	01/04/22 07:37	TPH 8015M	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 07:37*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 07:37*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1110**	134	mg/kg dry	5	[CALC]	01/03/22 16:00	01/04/22 07:37	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

AH-1 @ 2'

2A03001-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 18:08	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 18:08	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 18:08	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 18:08	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 18:08	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.3 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 18:08*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*100 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 18:08*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2.40**	1.04	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 19:07	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P2A0308	01/03/22 16:00	01/04/22 08:42	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P2A0308	01/03/22 16:00	01/04/22 08:42	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P2A0308	01/03/22 16:00	01/04/22 08:42	TPH 8015M	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 08:42*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 08:42*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	01/03/22 16:00	01/04/22 08:42	calc	

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AH-2 @ Surface

2A03001-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	**39.1**	0.532	mg/kg dry	500	P2A0306	01/03/22 13:28	01/05/22 11:32	EPA 8021B	
Toluene	**558**	0.532	mg/kg dry	500	P2A0306	01/03/22 13:28	01/05/22 11:32	EPA 8021B	
Ethylbenzene	**186**	0.532	mg/kg dry	500	P2A0306	01/03/22 13:28	01/05/22 11:32	EPA 8021B	
Xylene (p/m)	**737**	1.06	mg/kg dry	500	P2A0306	01/03/22 13:28	01/05/22 11:32	EPA 8021B	
Xylene (o)	**188**	0.532	mg/kg dry	500	P2A0306	01/03/22 13:28	01/05/22 11:32	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/05/22 11:32*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.3 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/05/22 11:32*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**31.8**	1.06	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 19:26	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**19300**	266	mg/kg dry	10	P2A0308	01/03/22 16:00	01/04/22 10:10	TPH 8015M	
>C12-C28	**26800**	266	mg/kg dry	10	P2A0308	01/03/22 16:00	01/04/22 10:10	TPH 8015M	
>C28-C35	**4640**	266	mg/kg dry	10	P2A0308	01/03/22 16:00	01/04/22 10:10	TPH 8015M	
Surrogate: 1-Chlorooctane		*162 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 10:10*	*TPH 8015M*	*S-GC*
Surrogate: o-Terphenyl		*126 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 10:10*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**50800**	266	mg/kg dry	10	[CALC]	01/03/22 16:00	01/04/22 10:10	calc	

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AH-2 @ 1'

2A03001-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	**0.00151**	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 19:51	EPA 8021B	
Toluene	**0.0241**	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 19:51	EPA 8021B	
Ethylbenzene	**0.0349**	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 19:51	EPA 8021B	
Xylene (p/m)	**0.186**	0.00208	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 19:51	EPA 8021B	
Xylene (o)	**0.0628**	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 19:51	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*103 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 19:51*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 19:51*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**21.8**	1.04	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 19:45	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**601**	130	mg/kg dry	5	P2A0308	01/03/22 16:00	01/04/22 10:32	TPH 8015M	
>C12-C28	**1080**	130	mg/kg dry	5	P2A0308	01/03/22 16:00	01/04/22 10:32	TPH 8015M	
>C28-C35	**225**	130	mg/kg dry	5	P2A0308	01/03/22 16:00	01/04/22 10:32	TPH 8015M	
Surrogate: 1-Chlorooctane		*117 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 10:32*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 10:32*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1900**	130	mg/kg dry	5	[CALC]	01/03/22 16:00	01/04/22 10:32	calc	

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AH-2 @ 2'

2A03001-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	**0.00899**	0.00109	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 20:12	EPA 8021B	
Toluene	**0.0165**	0.00109	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 20:12	EPA 8021B	
Ethylbenzene	**0.00176**	0.00109	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 20:12	EPA 8021B	
Xylene (p/m)	**0.00537**	0.00217	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 20:12	EPA 8021B	
Xylene (o)	**0.00186**	0.00109	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 20:12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*99.9 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 20:12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*92.0 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 20:12*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3.28**	1.09	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 20:04	EPA 300.0	
% Moisture	**18.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P2A0308	01/03/22 16:00	01/04/22 10:54	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P2A0308	01/03/22 16:00	01/04/22 10:54	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P2A0308	01/03/22 16:00	01/04/22 10:54	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 10:54*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P2A0308*	*01/03/22 16:00*	*01/04/22 10:54*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	01/03/22 16:00	01/04/22 10:54	calc	

Dean	Project: Plains-Thomas Station Remediation
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AH-3 @ Surface

2A03001-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	**8.67**	0.515	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 22:15	EPA 8021B	
Toluene	**120**	0.515	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 22:15	EPA 8021B	
Ethylbenzene	**46.1**	0.515	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 22:15	EPA 8021B	
Xylene (p/m)	**189**	1.03	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 22:15	EPA 8021B	
Xylene (o)	**51.8**	0.515	mg/kg dry	500	P2A0306	01/03/22 13:28	01/04/22 22:15	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*84.5 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 22:15*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*87.1 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 22:15*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**799**	1.03	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 20:23	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**9230**	258	mg/kg dry	10	P2A0402	01/04/22 14:30	01/04/22 17:43	TPH 8015M	
>C12-C28	**18900**	258	mg/kg dry	10	P2A0402	01/04/22 14:30	01/04/22 17:43	TPH 8015M	
>C28-C35	**3050**	258	mg/kg dry	10	P2A0402	01/04/22 14:30	01/04/22 17:43	TPH 8015M	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		*P2A0402*	*01/04/22 14:30*	*01/04/22 17:43*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P2A0402*	*01/04/22 14:30*	*01/04/22 17:43*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**31200**	258	mg/kg dry	10	[CALC]	01/04/22 14:30	01/04/22 17:43	calc	

Dean	Project: Plains-Thomas Station Remediation
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AH-3 @ 1'

2A03001-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:35	EPA 8021B	
Toluene	**0.00144**	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:35	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:35	EPA 8021B	
Xylene (p/m)	**0.00264**	0.00208	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:35	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:35	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*99.2 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 22:35*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*91.3 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 22:35*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**46.6**	1.04	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 20:42	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P2A0402	01/04/22 14:30	01/04/22 18:06	TPH 8015M	
>C12-C28	**107**	26.0	mg/kg dry	1	P2A0402	01/04/22 14:30	01/04/22 18:06	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P2A0402	01/04/22 14:30	01/04/22 18:06	TPH 8015M	
Surrogate: 1-Chlorooctane		*86.7 %*	*70-130*		*P2A0402*	*01/04/22 14:30*	*01/04/22 18:06*	*TPH 8015M*	
Surrogate: o-Terphenyl		*87.6 %*	*70-130*		*P2A0402*	*01/04/22 14:30*	*01/04/22 18:06*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**107**	26.0	mg/kg dry	1	[CALC]	01/04/22 14:30	01/04/22 18:06	calc	

Dean	Project: Plains-Thomas Station Remediation
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AH-3 @ 2'

2A03001-15 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00106	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:56	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:56	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:56	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:56	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P2A0306	01/03/22 13:28	01/04/22 22:56	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*90.6 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 22:56*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*99.0 %*	*80-120*		*P2A0306*	*01/03/22 13:28*	*01/04/22 22:56*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**10.9**	1.06	mg/kg dry	1	P2A0309	01/03/22 15:34	01/03/22 21:01	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P2A0401	01/04/22 10:47	01/04/22 10:57	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P2A0402	01/04/22 14:30	01/04/22 18:29	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P2A0402	01/04/22 14:30	01/04/22 18:29	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P2A0402	01/04/22 14:30	01/04/22 18:29	TPH 8015M	
Surrogate: 1-Chlorooctane		*87.3 %*	*70-130*		*P2A0402*	*01/04/22 14:30*	*01/04/22 18:29*	*TPH 8015M*	
Surrogate: o-Terphenyl		*88.8 %*	*70-130*		*P2A0402*	*01/04/22 14:30*	*01/04/22 18:29*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	01/04/22 14:30	01/04/22 18:29	calc	

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

BTEX by 8021B - 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 P2A0306 - * DEFAULT PREP *** **										
Blank (P2A0306-BLK1)				Prepared: 01/03/22 Analyzed: 01/04/22						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.103*		*"*	*0.102*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0997*		*"*	*0.102*		*97.3*	*80-120*			
LCS (P2A0306-BS1)				Prepared: 01/03/22 Analyzed: 01/04/22						
Benzene	0.0878	0.00100	mg/kg wet	0.0969		90.6	70-130			
Toluene	0.0865	0.00100	"	0.0969		89.3	70-130			
Ethylbenzene	0.0933	0.00100	"	0.0969		96.3	70-130			
Xylene (p/m)	0.183	0.00200	"	0.194		94.6	70-130			
Xylene (o)	0.0824	0.00100	"	0.0969		85.0	70-130			
Surrogate: 1,4-Difluorobenzene	*0.117*		*"*	*0.116*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.117*		*"*	*0.116*		*101*	*80-120*			
LCS Dup (P2A0306-BSD1)				Prepared: 01/03/22 Analyzed: 01/04/22						
Benzene	0.0681	0.00100	mg/kg wet	0.0842		80.8	70-130	11.4	20	
Toluene	0.0674	0.00100	"	0.0842		80.1	70-130	10.9	20	
Ethylbenzene	0.0712	0.00100	"	0.0842		84.6	70-130	12.9	20	
Xylene (p/m)	0.140	0.00200	"	0.168		83.3	70-130	12.7	20	
Xylene (o)	0.0677	0.00100	"	0.0842		80.4	70-130	5.57	20	
Surrogate: 1,4-Difluorobenzene	*0.106*		*"*	*0.101*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.108*		*"*	*0.101*		*107*	*80-120*			
Calibration Blank (P2A0306-CCB1)				Prepared: 01/03/22 Analyzed: 01/04/22						
Benzene	0.00		mg/kg wet							
Toluene	0.200		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.300		"							
Xylene (o)	0.130		"							
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.111*		*"*	*0.120*		*92.3*	*80-120*			

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

BTEX by 8021B - 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 P2A0306 - * DEFAULT PREP *** **										
Calibration Blank (P2A0306-CCB2)				Prepared: 01/03/22 Analyzed: 01/04/22						
Benzene	0.00		mg/kg wet							
Toluene	0.140		"							
Ethylbenzene	0.140		"							
Xylene (p/m)	0.320		"							
Xylene (o)	0.220		"							
Surrogate: 4-Bromofluorobenzene	*0.107*		"	*0.120*		*88.8*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.118*		"	*0.120*		*98.0*	*80-120*			
Calibration Blank (P2A0306-CCB3)				Prepared: 01/03/22 Analyzed: 01/05/22						
Benzene	0.00		mg/kg wet							
Toluene	0.150		"							
Ethylbenzene	0.130		"							
Xylene (p/m)	0.410		"							
Xylene (o)	0.220		"							
Surrogate: 1,4-Difluorobenzene	*0.116*		"	*0.120*		*97.1*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.104*		"	*0.120*		*86.3*	*80-120*			
Calibration Check (P2A0306-CCV1)				Prepared: 01/03/22 Analyzed: 01/04/22						
Benzene	0.0938	0.00100	mg/kg wet	0.100		93.8	80-120			
Toluene	0.0919	0.00100	"	0.100		91.9	80-120			
Ethylbenzene	0.0919	0.00100	"	0.100		91.9	80-120			
Xylene (p/m)	0.193	0.00200	"	0.200		96.5	80-120			
Xylene (o)	0.0884	0.00100	"	0.100		88.4	80-120			
Surrogate: 1,4-Difluorobenzene	*0.122*		"	*0.120*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.121*		"	*0.120*		*101*	*75-125*			
Calibration Check (P2A0306-CCV2)				Prepared: 01/03/22 Analyzed: 01/04/22						
Benzene	0.0975	0.00100	mg/kg wet	0.100		97.5	80-120			
Toluene	0.0956	0.00100	"	0.100		95.6	80-120			
Ethylbenzene	0.0931	0.00100	"	0.100		93.1	80-120			
Xylene (p/m)	0.195	0.00200	"	0.200		97.6	80-120			
Xylene (o)	0.0920	0.00100	"	0.100		92.0	80-120			
Surrogate: 4-Bromofluorobenzene	*0.112*		"	*0.120*		*93.4*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.120*		"	*0.120*		*99.8*	*75-125*			

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

BTEX by 8021B - 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 P2A0306 - * DEFAULT PREP *** **										
Calibration Check (P2A0306-CCV3)				Prepared: 01/03/22 Analyzed: 01/05/22						
Benzene	0.105	0.00100	mg/kg wet	0.100		105	80-120			
Toluene	0.102	0.00100	"	0.100		102	80-120			
Ethylbenzene	0.0989	0.00100	"	0.100		98.9	80-120			
Xylene (p/m)	0.205	0.00200	"	0.200		102	80-120			
Xylene (o)	0.0966	0.00100	"	0.100		96.6	80-120			
Surrogate: 4-Bromofluorobenzene	*0.107*		"	*0.120*		*89.4*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.119*		"	*0.120*		*99.3*	*75-125*			
Matrix Spike (P2A0306-MS1)		**Source: 2A03001-03**		Prepared: 01/03/22 Analyzed: 01/05/22						**QM-07**
Benzene	0.0818	0.00104	mg/kg dry	0.104	ND	78.8	80-120			
Toluene	0.0773	0.00104	"	0.104	ND	74.5	80-120			
Ethylbenzene	0.0461	0.00104	"	0.104	ND	44.5	80-120			
Xylene (p/m)	0.171	0.00208	"	0.208	0.00117	82.0	80-120			
Xylene (o)	0.0831	0.00104	"	0.104	0.00101	79.2	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	*0.115*		"	*0.125*		*92.4*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.124*		"	*0.125*		*99.2*	*80-120*			
Matrix Spike Dup (P2A0306-MSD1)		**Source: 2A03001-03**		Prepared: 01/03/22 Analyzed: 01/05/22						
Benzene	0.0861	0.00104	mg/kg dry	0.105	ND	82.0	80-120	3.94	20	
Toluene	0.0836	0.00104	"	0.105	ND	79.6	80-120	6.65	20	QM-07
Ethylbenzene	0.0484	0.00104	"	0.105	ND	46.1	80-120	3.51	20	QM-07
Xylene (p/m)	0.183	0.00208	"	0.210	0.00117	86.7	80-120	5.62	20	
Xylene (o)	0.0876	0.00104	"	0.105	0.00101	82.5	80-120	4.07	20	
Surrogate: 4-Bromofluorobenzene	*0.117*		"	*0.126*		*93.2*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.127*		"	*0.126*		*101*	*80-120*			

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0305 - * DEFAULT PREP *** **										
Blank (P2A0305-BLK1)				Prepared & Analyzed: 01/03/22						
Chloride	ND	1.00	mg/kg wet							
LCS (P2A0305-BS1)				Prepared & Analyzed: 01/03/22						
Chloride	38.9		mg/kg	40.0		97.3	90-110			
LCS Dup (P2A0305-BSD1)				Prepared & Analyzed: 01/03/22						
Chloride	39.1		mg/kg	40.0		97.8	90-110	0.541	10	
Calibration Blank (P2A0305-CCB1)				Prepared & Analyzed: 01/03/22						
Chloride	0.116		mg/kg wet							
Calibration Blank (P2A0305-CCB2)				Prepared: 01/03/22 Analyzed: 01/04/22						
Chloride	0.00		mg/kg wet							
Calibration Check (P2A0305-CCV1)				Prepared & Analyzed: 01/03/22						
Chloride	18.1		mg/kg	20.0		90.4	90-110			
Calibration Check (P2A0305-CCV2)				Prepared: 01/03/22 Analyzed: 01/04/22						
Chloride	18.4		mg/kg	20.0		91.9	90-110			
Calibration Check (P2A0305-CCV3)				Prepared: 01/03/22 Analyzed: 01/04/22						
Chloride	18.4		mg/kg	20.0		91.8	90-110			
Matrix Spike (P2A0305-MS1)		**Source: 1L30011-12**		Prepared & Analyzed: 01/03/22						
Chloride	11500	68.5	mg/kg dry	3420	8780	78.4	80-120			QM-05
Matrix Spike (P2A0305-MS2)		**Source: 1L30011-22**		Prepared: 01/03/22 Analyzed: 01/04/22						
Chloride	16900	69.4	mg/kg dry	3470	13400	99.0	80-120			

Dean	Project: Plains-Thomas Station Remediation
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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 P2A0305 - * DEFAULT PREP *** **										
Matrix Spike Dup (P2A0305-MSD1)	**Source: 1L30011-12**			Prepared & Analyzed: 01/03/22						
Chloride	11900	68.5	mg/kg dry	3420	8780	90.6	80-120	3.59	20	
Matrix Spike Dup (P2A0305-MSD2)	**Source: 1L30011-22**			Prepared: 01/03/22 Analyzed: 01/04/22						
Chloride	16900	69.4	mg/kg dry	3470	13400	101	80-120	0.456	20	
Batch P2A0309 - * DEFAULT PREP *** **										
Blank (P2A0309-BLK1)				Prepared & Analyzed: 01/03/22						
Chloride	ND	1.00	mg/kg wet							
LCS (P2A0309-BS1)				Prepared & Analyzed: 01/03/22						
Chloride	40.9		mg/kg	40.0		102	90-110			
LCS Dup (P2A0309-BSD1)				Prepared & Analyzed: 01/03/22						
Chloride	40.9		mg/kg	40.0		102	90-110	0.0294	10	
Calibration Blank (P2A0309-CCB1)				Prepared & Analyzed: 01/03/22						
Chloride	0.0610		mg/kg wet							
Calibration Check (P2A0309-CCV1)				Prepared & Analyzed: 01/03/22						
Chloride	20.2		mg/kg	20.0		101	90-110			
Calibration Check (P2A0309-CCV2)				Prepared & Analyzed: 01/03/22						
Chloride	20.5		mg/kg	20.0		102	90-110			
Matrix Spike (P2A0309-MS1)	**Source: 2A03004-01**			Prepared & Analyzed: 01/03/22						
Chloride	889	1.23	mg/kg dry	309	286	196	80-120			QM-05

Dean	Project: Plains-Thomas Station Remediation
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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 P2A0309 - * DEFAULT PREP *** **										
Matrix Spike Dup (P2A0309-MSD1)	**Source: 2A03004-01**			Prepared & Analyzed: 01/03/22						
Chloride	822	1.23	mg/kg dry	309	286	174	80-120	7.84	20	QM-05
Batch P2A0401 - * DEFAULT PREP *** **										
Blank (P2A0401-BLK1)				Prepared & Analyzed: 01/04/22						
% Moisture	ND	0.1	%							
Duplicate (P2A0401-DUP1)	**Source: 1L30011-03**			Prepared & Analyzed: 01/04/22						
% Moisture	12.0	0.1	%		12.0			0.00	20	
Duplicate (P2A0401-DUP2)	**Source: 1L30011-13**			Prepared & Analyzed: 01/04/22						
% Moisture	26.0	0.1	%		26.0			0.00	20	
Duplicate (P2A0401-DUP3)	**Source: 1L30012-01**			Prepared & Analyzed: 01/04/22						
% Moisture	8.0	0.1	%		7.0			13.3	20	
Duplicate (P2A0401-DUP4)	**Source: 2A03001-08**			Prepared & Analyzed: 01/04/22						
% Moisture	4.0	0.1	%		4.0			0.00	20	
Duplicate (P2A0401-DUP5)	**Source: 2A03003-03**			Prepared & Analyzed: 01/04/22						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P2A0401-DUP6)	**Source: 2A03005-07**			Prepared & Analyzed: 01/04/22						
% Moisture	1.0	0.1	%		1.0			0.00	20	

Dean	Project: Plains-Thomas Station Remediation
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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 P2A0308 - TX 1005										
Blank (P2A0308-BLK1)				Prepared: 01/03/22 Analyzed: 01/04/22						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*89.8*		*"*	*100*		*89.8*	*70-130*			
Surrogate: o-Terphenyl	*46.2*		*"*	*50.0*		*92.4*	*70-130*			
LCS (P2A0308-BS1)				Prepared: 01/03/22 Analyzed: 01/04/22						
C6-C12	1070	25.0	mg/kg wet	1000		107	75-125			
>C12-C28	970	25.0	"	1000		97.0	75-125			
Surrogate: 1-Chlorooctane	*99.8*		*"*	*100*		*99.8*	*70-130*			
Surrogate: o-Terphenyl	*52.4*		*"*	*50.0*		*105*	*70-130*			
LCS Dup (P2A0308-BSD1)				Prepared: 01/03/22 Analyzed: 01/04/22						
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125	1.90	20	
>C12-C28	952	25.0	"	1000		95.2	75-125	1.92	20	
Surrogate: 1-Chlorooctane	*99.8*		*"*	*100*		*99.8*	*70-130*			
Surrogate: o-Terphenyl	*52.1*		*"*	*50.0*		*104*	*70-130*			
Calibration Check (P2A0308-CCV1)				Prepared: 01/03/22 Analyzed: 01/04/22						
C6-C12	575	25.0	mg/kg wet	500		115	85-115			
>C12-C28	569	25.0	"	500		114	85-115			
Surrogate: 1-Chlorooctane	*124*		*"*	*100*		*124*	*70-130*			
Surrogate: o-Terphenyl	*52.3*		*"*	*50.0*		*105*	*70-130*			
Calibration Check (P2A0308-CCV2)				Prepared: 01/03/22 Analyzed: 01/04/22						
C6-C12	545	25.0	mg/kg wet	500		109	85-115			
>C12-C28	566	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	*124*		*"*	*100*		*124*	*70-130*			
Surrogate: o-Terphenyl	*52.8*		*"*	*50.0*		*106*	*70-130*			

Dean	Project: Plains-Thomas Station Remediation
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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 P2A0308 - TX 1005										
Calibration Check (P2A0308-CCV3)				Prepared: 01/03/22 Analyzed: 01/04/22						
C6-C12	576	25.0	mg/kg wet	500		115	85-115			
>C12-C28	563	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	*120*		*"*	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*50.4*		*"*	*50.0*		*101*	*70-130*			
Duplicate (P2A0308-DUP1)		**Source: 2A03001-12**		Prepared: 01/03/22 Analyzed: 01/04/22						
C6-C12	20.8	26.0	mg/kg dry		22.1			6.08	20	
>C12-C28	ND	26.0	"		ND				20	
Surrogate: 1-Chlorooctane	*120*		*"*	*104*		*115*	*70-130*			
Surrogate: o-Terphenyl	*62.3*		*"*	*52.1*		*120*	*70-130*			
Batch P2A0402 - * DEFAULT PREP *** **										
Blank (P2A0402-BLK1)				Prepared & Analyzed: 01/04/22						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*86.6*		*"*	*100*		*86.6*	*70-130*			
Surrogate: o-Terphenyl	*44.0*		*"*	*50.0*		*88.1*	*70-130*			
LCS (P2A0402-BS1)				Prepared & Analyzed: 01/04/22						
C6-C12	976	25.0	mg/kg wet	1000		97.6	75-125			
>C12-C28	921	25.0	"	1000		92.1	75-125			
Surrogate: 1-Chlorooctane	*130*		*"*	*100*		*130*	*70-130*			
Surrogate: o-Terphenyl	*49.0*		*"*	*50.0*		*98.0*	*70-130*			
LCS Dup (P2A0402-BSD1)				Prepared & Analyzed: 01/04/22						
C6-C12	963	25.0	mg/kg wet	1000		96.3	75-125	1.32	20	
>C12-C28	901	25.0	"	1000		90.1	75-125	2.15	20	
Surrogate: 1-Chlorooctane	*130*		*"*	*100*		*130*	*70-130*			
Surrogate: o-Terphenyl	*50.0*		*"*	*50.0*		*100*	*70-130*			

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0402 - * DEFAULT PREP *** **										
Calibration Check (P2A0402-CCV1)				Prepared & Analyzed: 01/04/22						
C6-C12	574	25.0	mg/kg wet	500		115	85-115			
>C12-C28	560	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	*120*		*"*	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*51.0*		*"*	*50.0*		*102*	*70-130*			
Calibration Check (P2A0402-CCV2)				Prepared & Analyzed: 01/04/22						
C6-C12	572	25.0	mg/kg wet	500		114	85-115			
>C12-C28	543	25.0	"	500		109	85-115			
Surrogate: 1-Chlorooctane	*125*		*"*	*100*		*125*	*70-130*			
Surrogate: o-Terphenyl	*53.0*		*"*	*50.0*		*106*	*70-130*			
Calibration Check (P2A0402-CCV3)				Prepared: 01/04/22 Analyzed: 01/05/22						
C6-C12	551	25.0	mg/kg wet	500		110	85-115			
>C12-C28	562	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	*129*		*"*	*100*		*129*	*70-130*			
Surrogate: o-Terphenyl	*54.0*		*"*	*50.0*		*108*	*70-130*			
Duplicate (P2A0402-DUP1)	**Source: 2A03005-09**			Prepared: 01/04/22 Analyzed: 01/05/22						
C6-C12	188	272	mg/kg dry		ND			166	20	
>C12-C28	7870	272	"		799			163	20	
Surrogate: 1-Chlorooctane	*94.6*		*"*	*109*		*87.0*	*70-130*			
Surrogate: o-Terphenyl	*56.8*		*"*	*54.3*		*105*	*70-130*			

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
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: 1/6/2022

Brent Barron, Laboratory Director/Technical Director

Dean	Project:	Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number:	PP-21255
Midland TX, 79707	Project Manager:	Jeff Kindley

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

L: _____ CH: _____ W: _____

Permian Basin Environmental Lab, LP
1400 Rankin HWY
Midland, Texas 79701
Phone: 432-686-7235

Project Manager: Jeff Kindley
Company Name: Dean
Company Address: 12600 WCRD 91
City/State/Zip: Midland, TX 79707
Telephone No: 432 653 4203
Sampler Signature: Elizabeth Groves

Project Name: Plains Thomas Station Remediation
Project #: PP-21255
Project Loc: Eddy County, NM
PO #: SRS # 2021-113
Fax No: _____
Report Format: ☐ Standard ☐ TRRP ☐ NPDES
e-mail: Elizabeth, Jeff, Steve, Kaylan & Amber Groves w/ Plains

(lab use only)
ORDER #: 2A03001

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: TPH: TX 1005	TX 1006	Anions (Cl, SO4, Alkalinity)	BTEX 8021B 5030 or BTEX 8260	TPH 8015M	RUSH TAT (Pre-Schedule) 24, 48, 72 h	Standard TAT
1	AH-1@ Surface		0	12/30/21	0800		1	X										X	X	X		X
2	AH-1 @ 1'		1'		0805													X	X	X		
3	AH-1 @ 2'		2'		0811													X	X	X		
4	** AH-1@ 3'		3'		0820																	
5	** AH-1@ 4'		4'		0822																	
6	** AH-1@ 5'		5'		0827																	
7	AH-2@ Surface		0		0840													X	X	X		
8	AH-2@ 1'		1'		0842													X	X	X		
9	AH-2@ 2'		2'		0847													X	X	X		
10	** AH-2@ 3'		3'		0851																	

Special Instructions: ** Only run deeper samples if GRO + DRO is higher than 1,000 mg/kg, BTEX is higher than total of 50 mg/kg & Cl is higher than 20,000 mg/kg

Relinquished by:	Date	Time	Received by:	Date	Time
Elizabeth Groves	1/3/22	0959			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
			Diana Bedoya	1/3/22	8:59

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	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 4.5 °C Thermometer: CF-1
Adjusted: 5.5 °C Factor: 1.0

PBEL_COC_2021_1 Revision #: 2021_1 Effective Date: 9-21-21 Page __ of __

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST L: _____ CH: _____ W: _____

Permian Basin Environmental Lab, LP
1400 Rankin HWY
Midland, Texas 79701
Phone: 432-686-7235

Project Manager: Jeff Kindley
Company Name: Dean
Company Address: 12600 W CR Rd 91
City/State/Zip: Midland TX 79707
Telephone No: 432 653 4203
Sampler Signature: Elizabeth Grant

Project Name: Plains Thomas Station Remediation
Project #: 1P-21255
Project Loc:
PO #: SRS # 2021-113
Fax No:
Report Format: ☐ Standard ☐ TRRP ☐ NPDES
e-mail: Elizabeth, Jeff, Steve, Kaylon, + Amber Groves w/ Plains

(lab use only)
ORDER #: 2A03001

Analyze For:
TCLP:
TOTAL:

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	TPH: TX 1005	TX 1006	Anions (Cl, SO4, Alkalinity)	BTEX 8021B/5030 or BTEX 8260	TPH 8015M	RUSH TAT (Pre-Schedule) 24, 48, 72 hr	Standard TAT
11	** AH-2@ 4'		4'	12/20/21	0854		1	X															0
12	** AH-2@ 5'		5'		0859		1	X											X				
13	AH-3@ Surface		0		0902														X	X	X		
14	AH-3@ 1'		1'		0912														X	X	X		
15	AH-3@ 2'		2'		0915														X	X	X		
16	** AH-3@ 3'		3'		1305																		
17	** AH-3@ 4'		4'		1310																		
18	** AH-3@ 5'		5'	↓	1320		↓	↓															24

Special Instructions: ** only run deeper samples in series if TPH DRO + GRO is higher than 1,000 mg/kg BTEX total is greater than 50 mg/kg & CL is higher than 20,000 mg/kg

Relinquished by:	Date	Time	Received by:	Date	Time
Elizabeth Grant	1/3/22	0859			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
			Teresa Eldson	1/3/22	8:59

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	Y	N
by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: 4.5 °C Thermometer: CF1
Adjusted: 5.5 °C Factor: 1.1

PBEL_COC_2021_1 Revision #: 2021_1 Effective Date: 9-21-21 Page __ of __

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

Sample Receipt Checklist

Yes		Notes
✓	Chain of custody present?	
✓	Chain of custody signed/dated/time when relinquished and received?	
✓	Sample date/time present on COC for all samples?	
✓	Samplers name present on COC?	
✓	Chain of Custody agrees with sample labels?	
✓	Sample containers intact?	
✓	Custody seal intact on sample bottles?	
✓	Samples in proper container/bottle?	
✓	Sufficient sample volume for indicated test?	
✓	All samples received within holding time?	
✓	Samples received within appropriate temp?	5 5
✓	Analysis requested for all samples submitted?	
	Shippers container/cooler in good condition?	
	Custody seals intact on shipping container/cooler?	

Login Notes: 4oz Jar 2A03001

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

SAMPLE VARIANCE/NON-CONFORMANCE

Variance/Discrepancy:

Resolution:

Client Contacted

Name:

Date/Time:

NC Initiated by:_____ Approved by:_____

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

PBELAB

Analytical Report

Prepared for:

Jeff Kindley

Dean

12600 W County Rd 91

Midland, TX 79707

Project: Plains-Thomas Station Remediation

Project Number: PP-21255

Location: Eddy County, NM

Lab Order Number: 2A06002

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 01/11/22

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 @ 8"	2A06002-01	Soil	01/05/22 09:00	01-06-2022 09:54
BH-2 @ 2'	2A06002-02	Soil	01/05/22 09:30	01-06-2022 09:54
BH-3 @ 2'	2A06002-03	Soil	01/05/22 10:00	01-06-2022 09:54
BH-4 @ 2'	2A06002-04	Soil	01/05/22 10:30	01-06-2022 09:54
BH-5 @ 2'	2A06002-05	Soil	01/05/22 11:00	01-06-2022 09:54
BH-6 @ 2'	2A06002-06	Soil	01/05/22 11:30	01-06-2022 09:54
BH-7@ 8"	2A06002-07	Soil	01/05/22 12:00	01-06-2022 09:54
SW-1 @ 1'	2A06002-08	Soil	01/05/22 13:05	01-06-2022 09:54
SW-2 @ 1'	2A06002-09	Soil	01/05/22 13:30	01-06-2022 09:54
WW-1 @ 4"	2A06002-10	Soil	01/05/22 13:35	01-06-2022 09:54
EW-1 @ 1'	2A06002-11	Soil	01/05/22 12:05	01-06-2022 09:54
NW-1 @ 1'	2A06002-12	Soil	01/05/22 12:15	01-06-2022 09:54
NW-2 @ 1'	2A06002-13	Soil	01/05/22 13:00	01-06-2022 09:54
NW-3 @ 1'	2A06002-14	Soil	01/05/22 13:15	01-06-2022 09:54

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

BH-1 @ 8"

2A06002-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:28	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:28	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:28	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:28	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:28	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.6 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 18:28*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*100 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 18:28*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7.73**	1.03	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 02:26	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/10/22 19:42	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/10/22 19:42	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/10/22 19:42	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/10/22 19:42*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/10/22 19:42*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	01/07/22 08:30	01/10/22 19:42	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

BH-2 @ 2'

2A06002-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:49	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:49	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:49	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:49	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 18:49	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*100 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 18:49*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*96.8 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 18:49*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**6.31**	1.03	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 02:41	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 22:12	TPH 8015M	
>C12-C28	**27.0**	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 22:12	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 22:12	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 22:12*	*TPH 8015M*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 22:12*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**27.0**	25.8	mg/kg dry	1	[CALC]	01/07/22 08:30	01/08/22 22:12	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

BH-3 @ 2'

2A06002-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:10	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:10	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:10	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:10	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:10	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*101 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 19:10*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*96.3 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 19:10*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7.67**	1.03	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 03:27	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 22:37	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 22:37	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 22:37	TPH 8015M	
Surrogate: 1-Chlorooctane		*98.9 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 22:37*	*TPH 8015M*	
Surrogate: o-Terphenyl		*98.4 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 22:37*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	01/07/22 08:30	01/08/22 22:37	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

BH-4 @ 2'

2A06002-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:31	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:31	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:31	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:31	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:31	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*99.1 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 19:31*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.4 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 19:31*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**20.3**	1.02	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 04:13	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:01	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:01	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:01	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 23:01*	*TPH 8015M*	
Surrogate: o-Terphenyl		*105 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 23:01*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	01/07/22 08:30	01/08/22 23:01	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

BH-5 @ 2'

2A06002-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:52	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:52	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:52	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:52	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 19:52	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 19:52*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*99.1 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 19:52*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**20.4**	1.02	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 04:28	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:26	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:26	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:26	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 23:26*	*TPH 8015M*	
Surrogate: o-Terphenyl		*99.5 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 23:26*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	01/07/22 08:30	01/08/22 23:26	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

BH-6 @ 2'

2A06002-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:13	EPA 8021B	
Toluene	**0.00273**	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:13	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:13	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:13	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*97.1 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 20:13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*101 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 20:13*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**26.5**	1.03	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 04:44	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:50	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:50	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P2A0704	01/07/22 08:30	01/08/22 23:50	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.1 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 23:50*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.3 %*	*70-130*		*P2A0704*	*01/07/22 08:30*	*01/08/22 23:50*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	01/07/22 08:30	01/08/22 23:50	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

BH-7@ 8''

2A06002-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00106	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:35	EPA 8021B	
Toluene	**0.00137**	0.00106	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:35	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:35	EPA 8021B	
Xylene (p/m)	**0.00573**	0.00213	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:35	EPA 8021B	
Xylene (o)	**0.00121**	0.00106	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:35	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*100 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 20:35*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 20:35*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**67.9**	1.06	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 04:59	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 15:45	TPH 8015M	
>C12-C28	**29.0**	26.6	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 15:45	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 15:45	TPH 8015M	
Surrogate: 1-Chlorooctane		*94.0 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 15:45*	*TPH 8015M*	
Surrogate: o-Terphenyl		*92.1 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 15:45*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**29.0**	26.6	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 15:45	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

SW-1 @ 1'

2A06002-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:56	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:56	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:56	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:56	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 20:56	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*97.1 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 20:56*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*101 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 20:56*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**19.4**	1.04	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 05:14	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:09	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:09	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:09	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.0 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 16:09*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.4 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 16:09*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 16:09	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

SW-2 @ 1'

2A06002-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 21:17	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 21:17	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 21:17	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 21:17	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 21:17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*100 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 21:17*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*96.1 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 21:17*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9.51**	1.04	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 05:30	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:34	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:34	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:34	TPH 8015M	
Surrogate: 1-Chlorooctane		*99.4 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 16:34*	*TPH 8015M*	
Surrogate: o-Terphenyl		*98.0 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 16:34*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 16:34	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

WW-1 @ 4''

2A06002-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:20	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:20	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:20	EPA 8021B	
Xylene (p/m)	**0.00515**	0.00208	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:20	EPA 8021B	
Xylene (o)	**0.00109**	0.00104	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*98.5 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 22:20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*97.5 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 22:20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**79.9**	1.04	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 05:45	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:58	TPH 8015M	
>C12-C28	**26.2**	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:58	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 16:58	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.7 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 16:58*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.5 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 16:58*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**26.2**	26.0	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 16:58	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

EW-1 @ 1'

2A06002-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:41	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:41	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:41	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:41	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 22:41	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*99.6 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 22:41*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.9 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 22:41*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2.88**	1.02	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 06:01	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 17:23	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 17:23	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 17:23	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.5 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 17:23*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.0 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 17:23*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 17:23	calc	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

NW-1 @ 1'

2A06002-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:02	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:02	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:02	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:02	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:02	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*92.2 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 23:02*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*98.4 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 23:02*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9.17**	1.02	mg/kg dry	1	P2A0702	01/07/22 13:01	01/08/22 06:16	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 17:47	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 17:47	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 17:47	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.9 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 17:47*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.0 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 17:47*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 17:47	calc	

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

NW-2 @ 1'

2A06002-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00101	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:23	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:23	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:23	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:23	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:23	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.6 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 23:23*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*99.4 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 23:23*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**15.1**	1.01	mg/kg dry	1	P2A0706	01/07/22 14:28	01/07/22 18:48	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 18:12	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 18:12	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 18:12	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.2 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 18:12*	*TPH 8015M*	
Surrogate: o-Terphenyl		*95.0 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 18:12*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 18:12	calc	

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

NW-3 @ 1'

2A06002-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:44	EPA 8021B	
Toluene	**0.00141**	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:44	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:44	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:44	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P2A0607	01/06/22 14:57	01/06/22 23:44	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*98.6 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 23:44*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.6 %*	*80-120*		*P2A0607*	*01/06/22 14:57*	*01/06/22 23:44*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**5.75**	1.03	mg/kg dry	1	P2A0706	01/07/22 14:28	01/07/22 19:34	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P2A0705	01/07/22 13:55	01/07/22 14:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 18:36	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 18:36	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P2A0708	01/07/22 14:58	01/09/22 18:36	TPH 8015M	
Surrogate: 1-Chlorooctane		*98.7 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 18:36*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.5 %*	*70-130*		*P2A0708*	*01/07/22 14:58*	*01/09/22 18:36*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	01/07/22 14:58	01/09/22 18:36	calc	

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

BTEX by 8021B - 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 P2A0607 - * DEFAULT PREP *** **										
Blank (P2A0607-BLK1)				Prepared & Analyzed: 01/06/22						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.106*		*"*	*0.120*		*88.4*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.9*	*80-120*			
LCS (P2A0607-BS1)				Prepared & Analyzed: 01/06/22						
Benzene	0.0947	0.00100	mg/kg wet	0.100		94.7	70-130			
Toluene	0.0928	0.00100	"	0.100		92.8	70-130			
Ethylbenzene	0.100	0.00100	"	0.100		100	70-130			
Xylene (p/m)	0.198	0.00200	"	0.200		98.8	70-130			
Xylene (o)	0.0869	0.00100	"	0.100		86.9	70-130			
Surrogate: 4-Bromofluorobenzene	*0.112*		*"*	*0.120*		*93.7*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.119*		*"*	*0.120*		*98.8*	*80-120*			
LCS Dup (P2A0607-BSD1)				Prepared & Analyzed: 01/06/22						
Benzene	0.0912	0.00100	mg/kg wet	0.100		91.2	70-130	3.83	20	
Toluene	0.0884	0.00100	"	0.100		88.4	70-130	4.86	20	
Ethylbenzene	0.0956	0.00100	"	0.100		95.6	70-130	4.45	20	
Xylene (p/m)	0.188	0.00200	"	0.200		94.1	70-130	4.78	20	
Xylene (o)	0.0827	0.00100	"	0.100		82.7	70-130	5.04	20	
Surrogate: 1,4-Difluorobenzene	*0.118*		*"*	*0.120*		*98.7*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*92.0*	*80-120*			
Calibration Blank (P2A0607-CCB1)				Prepared & Analyzed: 01/06/22						
Benzene	0.300		mg/kg wet							
Toluene	0.350		"							
Ethylbenzene	0.120		"							
Xylene (p/m)	0.320		"							
Xylene (o)	0.210		"							
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.106*		*"*	*0.120*		*88.7*	*80-120*			

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

BTEX by 8021B - 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 P2A0607 - * DEFAULT PREP *** **										
Calibration Blank (P2A0607-CCB2)				Prepared & Analyzed: 01/06/22						
Benzene	0.200		mg/kg wet							
Toluene	0.380		"							
Ethylbenzene	0.140		"							
Xylene (p/m)	0.300		"							
Xylene (o)	0.200		"							
Surrogate: 1,4-Difluorobenzene	*0.118*		*"*	*0.120*		*98.7*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.112*		*"*	*0.120*		*92.9*	*80-120*			
Calibration Check (P2A0607-CCV1)				Prepared & Analyzed: 01/06/22						
Benzene	0.0874	0.00100	mg/kg wet	0.100		87.4	80-120			
Toluene	0.0864	0.00100	"	0.100		86.4	80-120			
Ethylbenzene	0.0868	0.00100	"	0.100		86.8	80-120			
Xylene (p/m)	0.181	0.00200	"	0.200		90.7	80-120			
Xylene (o)	0.0814	0.00100	"	0.100		81.4	80-120			
Surrogate: 4-Bromofluorobenzene	*0.112*		*"*	*0.120*		*93.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.120*		*"*	*0.120*		*99.8*	*75-125*			
Calibration Check (P2A0607-CCV2)				Prepared & Analyzed: 01/06/22						
Benzene	0.0965	0.00100	mg/kg wet	0.100		96.5	80-120			
Toluene	0.0940	0.00100	"	0.100		94.0	80-120			
Ethylbenzene	0.0924	0.00100	"	0.100		92.4	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		97.0	80-120			
Xylene (o)	0.0910	0.00100	"	0.100		91.0	80-120			
Surrogate: 1,4-Difluorobenzene	*0.120*		*"*	*0.120*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.116*		*"*	*0.120*		*96.4*	*75-125*			
Calibration Check (P2A0607-CCV3)				Prepared: 01/06/22 Analyzed: 01/07/22						
Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.0979	0.00100	"	0.100		97.9	80-120			
Xylene (p/m)	0.203	0.00200	"	0.200		102	80-120			
Xylene (o)	0.0967	0.00100	"	0.100		96.7	80-120			
Surrogate: 1,4-Difluorobenzene	*0.120*		*"*	*0.120*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.118*		*"*	*0.120*		*98.1*	*75-125*			

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

BTEX by 8021B - 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 P2A0607 - * DEFAULT PREP *** **										
Matrix Spike (P2A0607-MS1)	**Source: 2A06002-02**			Prepared: 01/06/22 Analyzed: 01/07/22						
Benzene	0.0923	0.00103	mg/kg dry	0.103	ND	89.6	80-120			
Toluene	0.0725	0.00103	"	0.103	ND	70.3	80-120			
Ethylbenzene	0.0428	0.00103	"	0.103	ND	41.5	80-120			
Xylene (p/m)	0.188	0.00206	"	0.206	ND	91.3	80-120			
Xylene (o)	0.0892	0.00103	"	0.103	ND	86.5	80-120			
Surrogate: 1,4-Difluorobenzene	*0.123*		"	*0.124*		*99.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.119*		"	*0.124*		*96.0*	*80-120*			
Matrix Spike Dup (P2A0607-MSD1)	**Source: 2A06002-02**			Prepared: 01/06/22 Analyzed: 01/07/22						
Benzene	0.0890	0.00103	mg/kg dry	0.103	ND	86.3	80-120	3.65	20	
Toluene	0.0678	0.00103	"	0.103	ND	65.8	80-120	6.67	20	
Ethylbenzene	0.0371	0.00103	"	0.103	ND	36.0	80-120	14.2	20	
Xylene (p/m)	0.180	0.00206	"	0.206	ND	87.4	80-120	4.34	20	
Xylene (o)	0.0850	0.00103	"	0.103	ND	82.4	80-120	4.88	20	
Surrogate: 1,4-Difluorobenzene	*0.125*		"	*0.124*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.123*		"	*0.124*		*99.3*	*80-120*			

Dean	Project: Plains-Thomas Station Remediation
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Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0702 - * DEFAULT PREP *** **										
Blank (P2A0702-BLK1)				Prepared & Analyzed: 01/07/22						
Chloride	ND	1.00	mg/kg wet							
LCS (P2A0702-BS1)				Prepared & Analyzed: 01/07/22						
Chloride	38.9		mg/kg	40.0		97.3	90-110			
LCS Dup (P2A0702-BSD1)				Prepared & Analyzed: 01/07/22						
Chloride	38.7		mg/kg	40.0		96.8	90-110	0.564	10	
Calibration Blank (P2A0702-CCB1)				Prepared & Analyzed: 01/07/22						
Chloride	0.142		mg/kg wet							
Calibration Blank (P2A0702-CCB2)				Prepared: 01/07/22 Analyzed: 01/08/22						
Chloride	0.00		mg/kg wet							
Calibration Check (P2A0702-CCV1)				Prepared & Analyzed: 01/07/22						
Chloride	19.4		mg/kg	20.0		96.8	90-110			
Calibration Check (P2A0702-CCV2)				Prepared: 01/07/22 Analyzed: 01/08/22						
Chloride	18.9		mg/kg	20.0		94.4	90-110			
Calibration Check (P2A0702-CCV3)				Prepared: 01/07/22 Analyzed: 01/08/22						
Chloride	19.4		mg/kg	20.0		96.8	90-110			
Matrix Spike (P2A0702-MS1)		**Source: 2A05016-06**		Prepared: 01/07/22 Analyzed: 01/08/22						
Chloride	20200	57.5	mg/kg dry	2870	16300	138	80-120			QM-05
Matrix Spike (P2A0702-MS2)		**Source: 2A06002-03**		Prepared: 01/07/22 Analyzed: 01/08/22						
Chloride	238	1.03	mg/kg dry	258	7.67	89.5	80-120			

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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 P2A0702 - * DEFAULT PREP *** **										
Matrix Spike Dup (P2A0702-MSD1)	**Source: 2A05016-06**			Prepared: 01/07/22 Analyzed: 01/08/22						
Chloride	20800	57.5	mg/kg dry	2870	16300	157	80-120	2.65	20	QM-05
Matrix Spike Dup (P2A0702-MSD2)	**Source: 2A06002-03**			Prepared: 01/07/22 Analyzed: 01/08/22						
Chloride	240	1.03	mg/kg dry	258	7.67	90.0	80-120	0.608	20	
Batch P2A0705 - * DEFAULT PREP *** **										
Blank (P2A0705-BLK1)				Prepared & Analyzed: 01/07/22						
% Moisture	ND	0.1	%							
Blank (P2A0705-BLK2)				Prepared & Analyzed: 01/07/22						
% Moisture	ND	0.1	%							
Duplicate (P2A0705-DUP1)	**Source: 2A05008-10**			Prepared & Analyzed: 01/07/22						
% Moisture	10.0	0.1	%		10.0			0.00	20	
Duplicate (P2A0705-DUP2)	**Source: 2A05013-04**			Prepared & Analyzed: 01/07/22						
% Moisture	2.0	0.1	%		1.0			66.7	20	R3
Duplicate (P2A0705-DUP3)	**Source: 2A05015-03**			Prepared & Analyzed: 01/07/22						
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (P2A0705-DUP4)	**Source: 2A05016-08**			Prepared & Analyzed: 01/07/22						
% Moisture	14.0	0.1	%		14.0			0.00	20	
Duplicate (P2A0705-DUP5)	**Source: 2A06002-07**			Prepared & Analyzed: 01/07/22						
% Moisture	6.0	0.1	%		6.0			0.00	20	

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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 P2A0705 - * DEFAULT PREP *** **										
Duplicate (P2A0705-DUP6)		**Source: 2A06003-02**		Prepared & Analyzed: 01/07/22						
% Moisture	11.0	0.1	%		12.0			8.70	20	
Duplicate (P2A0705-DUP7)		**Source: 2A06003-17**		Prepared & Analyzed: 01/07/22						
% Moisture	5.0	0.1	%		6.0			18.2	20	
Duplicate (P2A0705-DUP8)		**Source: 2A06004-02**		Prepared & Analyzed: 01/07/22						
% Moisture	13.0	0.1	%		15.0			14.3	20	
Duplicate (P2A0705-DUP9)		**Source: 2A06011-04**		Prepared & Analyzed: 01/07/22						
% Moisture	6.0	0.1	%		5.0			18.2	20	
Batch P2A0706 - * DEFAULT PREP *** **										
Blank (P2A0706-BLK1)				Prepared & Analyzed: 01/07/22						
Chloride	ND	1.00	mg/kg wet							
LCS (P2A0706-BS1)				Prepared & Analyzed: 01/07/22						
Chloride	40.5		mg/kg	40.0		101	90-110			
LCS Dup (P2A0706-BSD1)				Prepared & Analyzed: 01/07/22						
Chloride	41.8		mg/kg	40.0		105	90-110	3.22	10	
Calibration Blank (P2A0706-CCB1)				Prepared & Analyzed: 01/07/22						
Chloride	0.139		mg/kg wet							
Calibration Blank (P2A0706-CCB2)				Prepared & Analyzed: 01/07/22						
Chloride	0.116		mg/kg wet							

Dean	Project: Plains-Thomas Station Remediation
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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 P2A0706 - * DEFAULT PREP *** **										
Calibration Check (P2A0706-CCV1)				Prepared & Analyzed: 01/07/22						
Chloride	19.0		mg/kg	20.0		94.9	90-110			
Calibration Check (P2A0706-CCV2)				Prepared & Analyzed: 01/07/22						
Chloride	19.4		mg/kg	20.0		97.0	90-110			
Calibration Check (P2A0706-CCV3)				Prepared & Analyzed: 01/07/22						
Chloride	19.4		mg/kg	20.0		96.8	90-110			
Matrix Spike (P2A0706-MS1)		**Source: 2A07001-01**		Prepared & Analyzed: 01/07/22						
Chloride	568	1.02	mg/kg dry	255	329	93.5	80-120			
Matrix Spike (P2A0706-MS2)		**Source: 2A06002-13**		Prepared & Analyzed: 01/07/22						
Chloride	235	1.01	mg/kg dry	253	15.1	87.2	80-120			
Matrix Spike Dup (P2A0706-MSD1)		**Source: 2A07001-01**		Prepared & Analyzed: 01/07/22						
Chloride	566	1.02	mg/kg dry	255	329	92.9	80-120	0.308	20	
Matrix Spike Dup (P2A0706-MSD2)		**Source: 2A06002-13**		Prepared & Analyzed: 01/07/22						
Chloride	228	1.01	mg/kg dry	253	15.1	84.5	80-120	2.98	20	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0704 - * DEFAULT PREP *** **										
Blank (P2A0704-BLK1)				Prepared: 01/07/22 Analyzed: 01/08/22						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*95.1*		*"*	*100*		*95.1*	*70-130*			
Surrogate: o-Terphenyl	*48.5*		*"*	*50.0*		*97.0*	*70-130*			
LCS (P2A0704-BS1)				Prepared: 01/07/22 Analyzed: 01/08/22						
C6-C12	994	25.0	mg/kg wet	1000		99.4	75-125			
>C12-C28	905	25.0	"	1000		90.5	75-125			
Surrogate: 1-Chlorooctane	*96.8*		*"*	*100*		*96.8*	*70-130*			
Surrogate: o-Terphenyl	*54.3*		*"*	*50.0*		*109*	*70-130*			
LCS Dup (P2A0704-BSD1)				Prepared: 01/07/22 Analyzed: 01/08/22						
C6-C12	971	25.0	mg/kg wet	1000		97.1	75-125	2.34	20	
>C12-C28	886	25.0	"	1000		88.6	75-125	2.14	20	
Surrogate: 1-Chlorooctane	*95.3*		*"*	*100*		*95.3*	*70-130*			
Surrogate: o-Terphenyl	*51.3*		*"*	*50.0*		*103*	*70-130*			
Calibration Check (P2A0704-CCV1)				Prepared: 01/07/22 Analyzed: 01/08/22						
C6-C12	498	25.0	mg/kg wet	500		99.5	85-115			
>C12-C28	484	25.0	"	500		96.7	85-115			
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*48.1*		*"*	*50.0*		*96.2*	*70-130*			
Calibration Check (P2A0704-CCV2)				Prepared: 01/07/22 Analyzed: 01/08/22						
C6-C12	506	25.0	mg/kg wet	500		101	85-115			
>C12-C28	455	25.0	"	500		91.0	85-115			
Surrogate: 1-Chlorooctane	*117*		*"*	*100*		*117*	*70-130*			
Surrogate: o-Terphenyl	*50.1*		*"*	*50.0*		*100*	*70-130*			

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0704 - * DEFAULT PREP *** **										
Calibration Check (P2A0704-CCV3)				Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	502	25.0	mg/kg wet	500		100	85-115			
>C12-C28	488	25.0	"	500		97.7	85-115			
Surrogate: 1-Chlorooctane	*115*		*"*	*100*		*115*	*70-130*			
Surrogate: o-Terphenyl	*50.4*		*"*	*50.0*		*101*	*70-130*			
Matrix Spike (P2A0704-MS1)		**Source: 2A06002-06**		Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	890	25.8	mg/kg dry	1030	17.4	84.6	75-125			
>C12-C28	844	25.8	"	1030	17.3	80.2	75-125			
Surrogate: 1-Chlorooctane	*129*		*"*	*103*		*125*	*70-130*			
Surrogate: o-Terphenyl	*49.3*		*"*	*51.5*		*95.7*	*70-130*			
Matrix Spike Dup (P2A0704-MSD1)		**Source: 2A06002-06**		Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	941	25.8	mg/kg dry	1030	17.4	89.6	75-125	5.65	20	
>C12-C28	885	25.8	"	1030	17.3	84.1	75-125	4.84	20	
Surrogate: 1-Chlorooctane	*131*		*"*	*103*		*127*	*70-130*			
Surrogate: o-Terphenyl	*50.9*		*"*	*51.5*		*98.8*	*70-130*			
Batch P2A0708 - * DEFAULT PREP *** **										
Blank (P2A0708-BLK1)				Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*83.9*		*"*	*100*		*83.9*	*70-130*			
Surrogate: o-Terphenyl	*43.2*		*"*	*50.0*		*86.3*	*70-130*			
LCS (P2A0708-BS1)				Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	976	25.0	mg/kg wet	1000		97.6	75-125			
>C12-C28	879	25.0	"	1000		87.9	75-125			
Surrogate: 1-Chlorooctane	*93.5*		*"*	*100*		*93.5*	*70-130*			
Surrogate: o-Terphenyl	*51.0*		*"*	*50.0*		*102*	*70-130*			

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0708 - * DEFAULT PREP *** **										
LCS Dup (P2A0708-BSD1)				Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	925	25.0	mg/kg wet	1000		92.5	75-125	5.43	20	
>C12-C28	860	25.0	"	1000		86.0	75-125	2.16	20	
Surrogate: 1-Chlorooctane	*126*		*"*	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*48.7*		*"*	*50.0*		*97.3*	*70-130*			
Calibration Check (P2A0708-CCV1)				Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	476	25.0	mg/kg wet	500		95.3	85-115			
>C12-C28	448	25.0	"	500		89.7	85-115			
Surrogate: 1-Chlorooctane	*107*		*"*	*100*		*107*	*70-130*			
Surrogate: o-Terphenyl	*47.4*		*"*	*50.0*		*94.7*	*70-130*			
Calibration Check (P2A0708-CCV2)				Prepared: 01/07/22 Analyzed: 01/09/22						
C6-C12	479	25.0	mg/kg wet	500		95.7	85-115			
>C12-C28	456	25.0	"	500		91.3	85-115			
Surrogate: 1-Chlorooctane	*107*		*"*	*100*		*107*	*70-130*			
Surrogate: o-Terphenyl	*47.4*		*"*	*50.0*		*94.8*	*70-130*			
Matrix Spike (P2A0708-MS1)	**Source: 2A06003-12**			Prepared: 01/07/22 Analyzed: 01/10/22						
C6-C12	984	26.9	mg/kg dry	1080	18.9	89.8	75-125			
>C12-C28	929	26.9	"	1080	15.5	85.0	75-125			
Surrogate: 1-Chlorooctane	*133*		*"*	*108*		*123*	*70-130*			
Surrogate: o-Terphenyl	*52.8*		*"*	*53.8*		*98.3*	*70-130*			
Matrix Spike Dup (P2A0708-MSD1)	**Source: 2A06003-12**			Prepared: 01/07/22 Analyzed: 01/10/22						
C6-C12	931	26.9	mg/kg dry	1080	18.9	84.8	75-125	5.69	20	
>C12-C28	877	26.9	"	1080	15.5	80.1	75-125	5.86	20	
Surrogate: 1-Chlorooctane	*123*		*"*	*108*		*115*	*70-130*			
Surrogate: o-Terphenyl	*47.9*		*"*	*53.8*		*89.1*	*70-130*			

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

Notes and Definitions

ROI	Received on Ice
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
NPBEL C(	Chain of Custody was not generated at PBELAB
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
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: 1/11/2022

Brent Barron, Laboratory Director/Technical Director

Dean	Project:	Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number:	PP-21255
Midland TX, 79707	Project Manager:	Jeff Kindley

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: Jeff Kindley

Company Name: Dean

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920 Fax No:

Sampler Signature: Chelsie Fortson

e-mail: jeffkindley@deandigs.com
stevecasanova@deandigs.com
kaylanlongee@deanequip.com
elizabethstuart@deandigs.com
jenniferperez@deandigs.com

Project Name: Thomas Truck Station Remediation

Project #: PP-21255

Project Loc: Eddy County, ~~Texas~~ NM

WORK ORDER #: SRS 2021-113

Report Format: X Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 2A06002

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 250ml Poly	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None 1L Poly	NaOH/ZnAc	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)				7 Day TAT	24 hour TAT
1	BH-1 @ 8"	8"	8"	01/05/21	9:00			x								Soil		x		x							x				x	
2	BH-2 @ 2'	2'	2'	01/05/21	9:30			x								Soil		x		x							x				x	
3	BH-3 @ 2'	2'	2'	01/05/21	10:00			x								Soil		x		x							x				x	
4	BH-4 @ 2'	2'	2'	01/05/21	10:30			x								Soil		x		x							x				x	
5	BH-5 @ 2'	2'	2'	01/05/21	11:00			x								Soil		x		x							x				x	
6	BH-6 @ 2'	2'	2'	01/05/21	11:30			x								Soil		x		x							x				x	
7	BH-7 @ 8"	8"	8"	01/05/21	12:00			x								Soil		x		x							x				x	
8	SW-1 @ 1'	1'	1'	01/05/21	1:05			x								Soil		x		x							x				x	
9	SW-2 @ 1'	1'	1'	01/05/21	1:30			x								Soil		x		x							x				x	
10	WW-1 @ 4"	4"	4"	01/05/21	1:35			x								Soil		x		x							x				x	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Jeff Kindley	01/06/22	954			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
			Trina Bledsoe	1/6/22	9:54

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: -4.3 °C
Adjusted: -3.3 °C Factor 1.1

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: Jeff Kindley

Company Name: Dean

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920 Fax No:

Sampler Signature: Chelsie Fortson

e-mail: jeffkindley@deandigs.com
stevecasanova@deandigs.com
kaylanlongee@deanequip.com
elizabethstuart@deandigs.com
jenniferperez@deandigs.com

Project Name: Thomas Truck Station Remediation

Project #: PP-21255

Project Loc: Eddy County, ~~Texas~~ TB NM

WORK ORDER #: SRS 2021-113

Report Format: X Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 2A06002

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3 250 ml Poly	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None 1L Poly	NaOH/ZnAc	Matrix: DW=Drinking Water SL=Sludge / GW = Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)				7 Day TAT	24 hour TAT
11	EW-1 @ 1'	1'	1'	01/05/21	12:05			x								Soil		x		x							x				x	
12	NW-1 @ 1'	1'	1'	01/05/21	12:15			x								Soil		x		x							x				x	
13	NW-2 @ 1'	1'	1'	01/05/21	1:00			x								Soil		x		x							x				x	
14	NW-3 @ 1'	1'	1'	01/05/21	1:15			x								Soil		x		x							x				x	

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Jeff Kindley	01/06/22	955	Received by:		
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: Teresa Bledsoe	Date 11/6/22	Time 9:55

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: -4.3 °C CF +1 Li
Adjusted: -3.3 °C Factor

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

Sample Receipt Checklist

Yes		Notes
✓	Chain of custody present?	
✓	Chain of custody signed/dated/time when relinquished and received?	
✓	Sample date/time present on COC for all samples?	
✓	Samplers name present on COC?	
✓	Chain of Custody agrees with sample labels?	
✓	Sample containers intact?	
X	Custody seals intact on sample bottles?	
✓	Samples in proper container/bottle?	
✓	Sufficient sample volume for indicated test?	
✓	All samples received within holding time?	
✓	Samples received within appropriate temp?	-3.3
✓	Analysis requested for all samples submitted?	
	Shipping container/cooler in good condition?	
	Custody seals intact on shipping container/cooler?	

Login Notes: 4oz Jar 2A06002

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

SAMPLE VARIANCE/NON-CONFORMANCE

Variance/Discrepancy:

Resolution:

Client Contacted

Name:

Date/Time:

NC Initiated by:_____ Approved by:_____

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

PBELAB

Analytical Report

Prepared for:

Jeff Kindley

Dean

12600 W County Rd 91

Midland, TX 79707

Project: Plains-Thomas Station Remediation

Project Number: PP-21255

Location: Eddy County, NM

Lab Order Number: 2A04007

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 01/21/22

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WC-1	2A04007-01	Soil	01/04/22 00:00	01-04-2022 16:22

TCLP Metals and RCI analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:
https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf

TOX/EOX and TCLP Benzene analysis were subcontracted to A&B Houston.Their current certification can be found here: https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/a&b_env.pdf

NORM analysis were subcontracted to ARS International, Port Allen LA. Their report is attached to the email due to an incompatibility with our LIMS Reporting module.

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

WC-1

2A04007-01 (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	**25.6**	1.04	mg/kg dry	1	P2A0506	01/05/22 16:39	01/05/22 22:24	EPA 300.0	
Reactive Cyanide	ND	0.250	ppm	1	P2A1402	01/12/22 14:00	01/12/22 14:00	SW846 9010B	SUB-13
Ignitability by Flashpoint	0.00		°F	1	P2A1402	01/13/22 14:00	01/13/22 14:00	ASTM D93-80	SUB-13
pH	ND	0.10	pH Units	1	P2A1402	01/11/22 13:57	01/11/22 13:57	EPA 9045B	SUB-13
Temp Deg C @ pH	0.00		pH Units	1	P2A1402	01/11/22 13:57	01/11/22 13:57	EPA 9045B	SUB-13
% Moisture	**4.0**	0.1	%	1	P2A0505	01/05/22 14:56	01/05/22 15:00	ASTM D2216	
Reactive Sulfide	ND	50.0	ppm	1	P2A1402	01/12/22 13:00	01/12/22 13:00	SW846 9030B	SUB-13
Total Organic Halides	ND	50.0	mg/kg dry	1	P2A1403	01/10/22 11:00	01/10/22 11:00	EPA 9023	SUB-16
Naturally Occuring Radioactive Material (N.O.R.M.)									
Radium 226	**1.69**	1.61	pCi/g	1	P2A2103	01/11/22 08:02	01/12/22 08:55	EPA 901.1	SUB12
Radium 228	ND	0.33	pCi/g	1	P2A2103	01/11/22 08:02	01/12/22 08:55	EPA 901.1	SUB12
Lead 210	ND	1.63	pCi/g	1	P2A2103	01/11/22 08:02	01/12/22 08:55	EPA 901.1	SUB12
Total Gamma	**7.95**		pCi/g	1	P2A2103	01/11/22 08:02	01/12/22 08:55	EPA 901.1	SUB12
Lead 210 Analysis Error	**1.11**		+/- 2 Sigma	1	P2A2103	01/11/22 08:02	01/12/22 08:55	EPA 901.1	SUB12
Radium 226 Analysis Error	**1.16**		+/- 2 Sigma	1	P2A2103	01/11/22 08:02	01/12/22 08:55	EPA 901.1	SUB12
Radium 228 Analysis Error	**0.26**		+/- 2 Sigma	1	P2A2103	01/11/22 08:02	01/12/22 08:55	EPA 901.1	SUB12
TCLP Metals 1311 by EPA / Standard Methods									
Mercury	ND	0.000200	mg/L	1	P2A1401	01/11/22 09:00	01/11/22 14:19	EPA 7470A	SUB-13
Arsenic	ND	0.0500	mg/L	1	P2A1401	01/11/22 09:00	01/12/22 20:16	EPA 6020A	SUB-13
Barium	**0.617**	0.200	mg/L	1	P2A1401	01/11/22 09:00	01/12/22 20:16	EPA 6020A	SUB-13
Cadmium	ND	0.0500	mg/L	1	P2A1401	01/11/22 09:00	01/12/22 20:16	EPA 6020A	SUB-13
Chromium	ND	0.0500	mg/L	1	P2A1401	01/11/22 09:00	01/12/22 20:16	EPA 6020A	SUB-13
Lead	ND	0.0500	mg/L	1	P2A1401	01/11/22 09:00	01/12/22 20:16	EPA 6020A	SUB-13
Selenium	ND	0.0500	mg/L	1	P2A1401	01/11/22 09:00	01/12/22 20:16	EPA 6020A	SUB-13
Silver	ND	0.0500	mg/L	1	P2A1401	01/11/22 09:00	01/12/22 20:16	EPA 6020A	SUB-13

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

WC-1

2A04007-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
TCLP Volatile Organic Compounds by EPA Method 1311/8260B									
Benzene	ND	125	ug/l	1	P2A1403	01/11/22 11:00	01/14/22 08:19	EPA 8260B	SUB-16
Physical Parameters by APHA/ASTM/EPA Methods									
Free Liquid	PASS		N/A	1	P2A0503	01/05/22 08:00	01/05/22 08:15	EPA 9095	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0505 - * DEFAULT PREP *** **										
Blank (P2A0505-BLK1)				Prepared & Analyzed: 01/05/22						
% Moisture	ND	0.1	%							
Duplicate (P2A0505-DUP1)		**Source: 2A04002-09**		Prepared & Analyzed: 01/05/22						
% Moisture	4.0	0.1	%		4.0			0.00	20	
Duplicate (P2A0505-DUP2)		**Source: 2A04004-09**		Prepared & Analyzed: 01/05/22						
% Moisture	13.0	0.1	%		13.0			0.00	20	
Duplicate (P2A0505-DUP3)		**Source: 2A04004-24**		Prepared & Analyzed: 01/05/22						
% Moisture	16.0	0.1	%		16.0			0.00	20	
Duplicate (P2A0505-DUP4)		**Source: 2A04006-02**		Prepared & Analyzed: 01/05/22						
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P2A0505-DUP5)		**Source: 2A04004-08**		Prepared & Analyzed: 01/05/22						
% Moisture	2.0	0.1	%		17.0			158	20	R3
Batch P2A0506 - * DEFAULT PREP *** **										
Blank (P2A0506-BLK1)				Prepared & Analyzed: 01/05/22						
Chloride	ND	1.00	mg/kg wet							
LCS (P2A0506-BS1)				Prepared & Analyzed: 01/05/22						
Chloride	40.1		mg/kg	40.0		100	90-110			
LCS Dup (P2A0506-BSD1)				Prepared & Analyzed: 01/05/22						
Chloride	39.8		mg/kg	40.0		99.5	90-110	0.781	10	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

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 P2A0506 - * DEFAULT PREP *** **										
Calibration Blank (P2A0506-CCB1)				Prepared & Analyzed: 01/05/22						
Chloride	0.135		mg/kg wet							
Calibration Blank (P2A0506-CCB2)				Prepared & Analyzed: 01/05/22						
Chloride	0.174		mg/kg wet							
Calibration Check (P2A0506-CCV1)				Prepared & Analyzed: 01/05/22						
Chloride	19.3		mg/kg	20.0		96.3	90-110			
Calibration Check (P2A0506-CCV2)				Prepared & Analyzed: 01/05/22						
Chloride	18.3		mg/kg	20.0		91.4	90-110			
Calibration Check (P2A0506-CCV3)				Prepared: 01/05/22 Analyzed: 01/06/22						
Chloride	19.2		mg/kg	20.0		96.0	90-110			
Matrix Spike (P2A0506-MS1)		**Source: 2A05004-03**		Prepared & Analyzed: 01/05/22						
Chloride	506	10.8	mg/kg dry	538	37.5	87.2	80-120			
Matrix Spike (P2A0506-MS2)		**Source: 2A04005-06**		Prepared & Analyzed: 01/05/22						
Chloride	17500	62.5	mg/kg dry	3120	13200	138	80-120			QM-05
Matrix Spike Dup (P2A0506-MSD1)		**Source: 2A05004-03**		Prepared & Analyzed: 01/05/22						
Chloride	505	10.8	mg/kg dry	538	37.5	87.0	80-120	0.191	20	
Matrix Spike Dup (P2A0506-MSD2)		**Source: 2A04005-06**		Prepared & Analyzed: 01/05/22						
Chloride	17400	62.5	mg/kg dry	3120	13200	135	80-120	0.572	20	QM-05

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

Physical Parameters by APHA/ASTM/EPA 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 P2A0503 - * DEFAULT PREP *** **										
Duplicate (P2A0503-DUP1)	**Source: 2A04007-01**			Prepared & Analyzed: 01/05/22						
Free Liquid	PASS		N/A		PASS				200	

Dean	Project: Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number: PP-21255
Midland TX, 79707	Project Manager: Jeff Kindley

Notes and Definitions

SUB-16	Subcontract of analyte/analysis to Summit Environmental Technologies, Cuyahoga Falls, Ohio.
SUB-13	Subcontract of analyte/analysis to ALS Houston.
SUB12	Analysis was subcontracted to ARS Port Allen Lousiana.
ROI	Received on Ice
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
NPBEL C(	Chain of Custody was not generated at PBELAB
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
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: 1/21/2022

Brent Barron, Laboratory Director/Technical Director

Dean	Project:	Plains-Thomas Station Remediation
12600 W County Rd 91	Project Number:	PP-21255
Midland TX, 79707	Project Manager:	Jeff Kindley

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: Jeff Kindley

Company Name: Dean

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920 Fax No:

Sampler Signature: Chelsie Fortson

e-mail: jeffkindley@deandigs.com
stevecasanova@deandigs.com
kaylanlongee@deanequip.com
elizabethstuart@deandigs.com
jenniferperez@deandigs.com

Project Name: Thomas Truck Station Remediation

Project #: PP-21255

Project Loc: Eddy County, Texas

WORK ORDER #: SRS 2021-113

Report Format: X Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER # 2201007

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3 250 ml Poly	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None 1L Poly	NaOH/ZnAc	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)				7 Day TAT	24 hour TAT
1	WC-1	-	-	01/04/22	0:00			x								Soil			x	x	x	x	x	x	x	x					x	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	11/04/2022	16:22			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
				11/4/22	1622

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Sample Containers Intact? 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

21.6 + 22.6 CF C2

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

Sample Receipt Checklist

Yes		Notes
✓	Chain of custody present?	
✓	Chain of custody signed/dated/time when relinquished and received?	
✓	Sample ID's/time present on COC for all samples?	
✓	Samplers name present on COC?	
✓	Chain of custody agrees with sample labels?	
✓	Sample containers intact?	
X	Custody seals intact on sample bottles?	
✓	Samples in proper container/bottle?	
✓	Sufficient sample volume for indicated test?	
✓	All samples received within holding time?	
X	Samples received with appropriate temp?	22.6
✓	Analysis requested for all samples submitted?	
	Shipping container/cooler in good condition?	
	Custody seals intact on shipping container/cooler?	

Login Notes:
Plastic Bag 2A04007

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

SAMPLE VARIANCE/NON-CONFORMANCE

Variance/Discrepancy:
temp 22.6 SOF

Resolution:

Client Contacted
Name: NO
Date/Time:

NC Initiated by: TB Approved by:

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

January 13, 2022

Brent Barron
Permian Basin Environmental Lab, LP
10014 SCR 1213
Midland, TX 79706

Work Order: **HS22010208**

Laboratory Results for: **2A04007**

Dear Brent Barron,

ALS Environmental received 1 sample(s) on Jan 06, 2022 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Bernadette Fini

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
Work Order: HS22010208

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22010208-01	2A04007-01	Soil		04-Jan-2022 00:00	06-Jan-2022 10:20	☐

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP **CASE NARRATIVE**
Project: 2A04007
Work Order: HS22010208

Work Order Comments

• Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.

The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

Metals by Method SW1311/6020

Batch ID: 174339

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW7470A

Batch ID: 174300

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method ASTM D92-12b

Batch ID: R400329

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.3.2

Batch ID: R400262

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.4.2

Batch ID: R400258

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9045D

Batch ID: R400179

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
Sample ID: 2A04007-01
Collection Date: 04-Jan-2022 00:00

ANALYTICAL REPORT
WorkOrder:HS22010208
Lab ID:HS22010208-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP METALS BY SW6020A	**Method:SW1311/6020**		Leache:SW1311 / 11-Jan-2022	Prep:SW3010A / 12-Jan-2022		Analyst: JHD
Arsenic	ND		0.0500	mg/L	1	12-Jan-2022 20:16
Barium	**0.617**		**0.200**	**mg/L**	1	12-Jan-2022 20:16
Cadmium	ND		0.0500	mg/L	1	12-Jan-2022 20:16
Chromium	ND		0.0500	mg/L	1	12-Jan-2022 20:16
Lead	ND		0.0500	mg/L	1	12-Jan-2022 20:16
Selenium	ND		0.0500	mg/L	1	12-Jan-2022 20:16
Silver	ND		0.0500	mg/L	1	12-Jan-2022 20:16
TCLP MERCURY BY SW7470A	**Method:SW7470A**		Leache:SW1311 / 11-Jan-2022	Prep:SW7470A / 11-Jan-2022		Analyst: MSC
Mercury	ND		0.000200	mg/L	1	11-Jan-2022 14:19
FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B	**Method:ASTM D92-12b**					Analyst: TH
Flash Point	> 212	n	50.0	°F	1	13-Jan-2022 14:00
REACTIVE CYANIDE	**Method:SW7.3.3.2**					Analyst: MZD
Reactive Cyanide	ND	n	100	mg/Kg	1	12-Jan-2022 14:00
REACTIVE SULFIDE	**Method:SW7.3.4.2**					Analyst: MZD
Reactive Sulfide	ND	n	100	mg/Kg	1	12-Jan-2022 13:00
PH SOIL BY SW9045D	**Method:SW9045D**					Analyst: CWG
pH	**8.47**	H	**0.100**	**pH Units**	1	11-Jan-2022 13:57
Temp Deg C @pH	**21.5**	H	**0**	**°C**	1	11-Jan-2022 13:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

Batch ID: 174279 **Start Date:** 10 Jan 2022 16:00 **End Date:** 11 Jan 2022 09:00
Method: TCLP MERCURY EXTRACTION BY SW1311 **Prep Code:** 1311LHG EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22010208-01		100 (grams)	2000 (mL)	20	4-oz glass, Neat

Batch ID: 174280 **Start Date:** 10 Jan 2022 16:00 **End Date:** 11 Jan 2022 09:00
Method: TCLP METALS EXTRACTION BY SW1311 **Prep Code:** 1311LM EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22010208-01		100 (grams)	2000 (mL)	20	4-oz glass, Neat

Batch ID: 174300 **Start Date:** 11 Jan 2022 08:30 **End Date:** 11 Jan 2022 11:30
Method: MERCURY TCLP PREP BY SW7470A **Prep Code:** 1311_HGPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22010208-01		10 (mL)	10 (mL)	1	4-oz glass, Neat

Batch ID: 174339 **Start Date:** 12 Jan 2022 12:00 **End Date:** 12 Jan 2022 16:00
Method: TCLP LEACHATE DIGESTION BY SW3010A **Prep Code:** 3010A_TCLP

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22010208-01		1 (mL)	10 (mL)	10	4-oz glass, Neat

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 174300 (0)	**Test Name :** TCLP MERCURY BY SW7470A				**Matrix:** Soil	
HS22010208-01	2A04007-01	04 Jan 2022 00:00	11 Jan 2022 09:00	11 Jan 2022 08:30	11 Jan 2022 14:19	1
Batch ID: 174339 (0)	**Test Name :** TCLP METALS BY SW6020A				**Matrix:** Soil	
HS22010208-01	2A04007-01	04 Jan 2022 00:00	11 Jan 2022 09:00	12 Jan 2022 16:00	12 Jan 2022 20:16	1
Batch ID: R400179 (0)	**Test Name :** PH SOIL BY SW9045D				**Matrix:** Soil	
HS22010208-01	2A04007-01	04 Jan 2022 00:00			11 Jan 2022 13:57	1
Batch ID: R400258 (0)	**Test Name :** REACTIVE SULFIDE				**Matrix:** Soil	
HS22010208-01	2A04007-01	04 Jan 2022 00:00			12 Jan 2022 13:00	1
Batch ID: R400262 (0)	**Test Name :** REACTIVE CYANIDE				**Matrix:** Soil	
HS22010208-01	2A04007-01	04 Jan 2022 00:00			12 Jan 2022 14:00	1
Batch ID: R400329 (0)	**Test Name :** FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B				**Matrix:** Soil	
HS22010208-01	2A04007-01	04 Jan 2022 00:00			13 Jan 2022 14:00	1

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: 174300 (0) **Instrument: HG03** **Method: TCLP MERCURY BY SW7470A**

MBLK Sample ID: **MBLKT2-174300** Units: **mg/L** Analysis Date: **11-Jan-2022 14:14**
Client ID: Run ID: **HG03_400174** SeqNo: **6459665** PrepDate: **11-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.000200								

MBLK Sample ID: **MBLKT1-174300** Units: **mg/L** Analysis Date: **11-Jan-2022 14:12**
Client ID: Run ID: **HG03_400174** SeqNo: **6459664** PrepDate: **11-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.000200								

MBLK Sample ID: **MBLK-174300** Units: **mg/L** Analysis Date: **11-Jan-2022 14:11**
Client ID: Run ID: **HG03_400174** SeqNo: **6459663** PrepDate: **11-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.000200								

LCS Sample ID: **LCS-174300** Units: **mg/L** Analysis Date: **11-Jan-2022 14:18**
Client ID: Run ID: **HG03_400174** SeqNo: **6459666** PrepDate: **11-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00489	0.000200	0.005	0	97.8	80 - 120				

MS Sample ID: **HS22010208-01MS** Units: **mg/L** Analysis Date: **11-Jan-2022 14:23**
Client ID: **2A04007-01** Run ID: **HG03_400174** SeqNo: **6459776** PrepDate: **11-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00513	0.000200	0.005	-0.000025	103	75 - 125				

MSD Sample ID: **HS22010208-01MSD** Units: **mg/L** Analysis Date: **11-Jan-2022 14:26**
Client ID: **2A04007-01** Run ID: **HG03_400174** SeqNo: **6459777** PrepDate: **11-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00498	0.000200	0.005	-0.000025	100	75 - 125	0.00513	2.97	20	

The following samples were analyzed in this batch: HS22010208-01

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: 174339 (0) **Instrument: ICPMS06** **Method: TCLP METALS BY SW6020A**

MBLK Sample ID: **MBLKT2-174339** Units: **mg/L** Analysis Date: **12-Jan-2022 19:56**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461604** PrepDate: **12-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0500								
Barium	ND	0.200								
Cadmium	ND	0.0500								
Chromium	ND	0.0500								
Lead	ND	0.0500								
Selenium	ND	0.0500								
Silver	ND	0.0500								

MBLK Sample ID: **MBLKT3-174339** Units: **mg/L** Analysis Date: **12-Jan-2022 19:58**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461605** PrepDate: **12-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0500								
Barium	ND	0.200								
Cadmium	ND	0.0500								
Chromium	ND	0.0500								
Lead	ND	0.0500								
Selenium	ND	0.0500								
Silver	ND	0.0500								

MBLK Sample ID: **MBLKT1-174339** Units: **mg/L** Analysis Date: **12-Jan-2022 19:54**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461603** PrepDate: **12-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0500								
Barium	ND	0.200								
Cadmium	ND	0.0500								
Chromium	ND	0.0500								
Lead	ND	0.0500								
Selenium	ND	0.0500								
Silver	ND	0.0500								

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: 174339 (0) **Instrument: ICPMS06** **Method: TCLP METALS BY SW6020A**

MBLK Sample ID: **MBLK-174339** Units: **mg/L** Analysis Date: **12-Jan-2022 19:52**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461602** PrepDate: **12-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.00500								
Barium	ND	0.0200								
Cadmium	ND	0.00500								
Chromium	ND	0.00500								
Lead	ND	0.00500								
Selenium	ND	0.00500								
Silver	ND	0.00500								

LCS Sample ID: **LCS-174339** Units: **mg/L** Analysis Date: **12-Jan-2022 20:00**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461606** PrepDate: **12-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05033	0.00500	0.05	0	101	80 - 120				
Barium	0.05123	0.0200	0.05	0	102	80 - 120				
Cadmium	0.05187	0.00500	0.05	0	104	80 - 120				
Chromium	0.0497	0.00500	0.05	0	99.4	80 - 120				
Lead	0.04756	0.00500	0.05	0	95.1	80 - 120				
Selenium	0.05305	0.00500	0.05	0	106	80 - 120				
Silver	0.04873	0.00500	0.05	0	97.5	80 - 120				

MS Sample ID: **HS22010262-01MS** Units: **mg/L** Analysis Date: **12-Jan-2022 20:10**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461611** PrepDate: **12-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5461	0.0500	0.5	0.00603	108	80 - 120				
Barium	0.7407	0.200	0.5	0.2144	105	80 - 120				
Cadmium	0.5362	0.0500	0.5	0.00932	105	80 - 120				
Chromium	0.5292	0.0500	0.5	0.00653	105	80 - 120				
Lead	0.5068	0.0500	0.5	0.00356	101	80 - 120				
Selenium	0.5626	0.0500	0.5	0.01397	110	80 - 120				
Silver	0.4889	0.0500	0.5	-0.00001	97.8	80 - 120				

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: 174339 (0) **Instrument: ICPMS06** **Method: TCLP METALS BY SW6020A**

MSD Sample ID: **HS22010262-01MSD** Units: **mg/L** Analysis Date: **12-Jan-2022 20:12**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461612** PrepDate: **12-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5362	0.0500	0.5	0.00603	106	80 - 120	0.5461	1.83	20	
Barium	0.7284	0.200	0.5	0.2144	103	80 - 120	0.7407	1.69	20	
Cadmium	0.5261	0.0500	0.5	0.00932	103	80 - 120	0.5362	1.91	20	
Chromium	0.5094	0.0500	0.5	0.00653	101	80 - 120	0.5292	3.81	20	
Lead	0.5087	0.0500	0.5	0.00356	101	80 - 120	0.5068	0.376	20	
Selenium	0.544	0.0500	0.5	0.01397	106	80 - 120	0.5626	3.36	20	
Silver	0.4848	0.0500	0.5	-0.00001	97.0	80 - 120	0.4889	0.838	20	

SD Sample ID: **HS22010262-01SD** Units: **mg/L** Analysis Date: **12-Jan-2022 20:08**
Client ID: Run ID: **ICPMS06_400245** SeqNo: **6461610** PrepDate: **12-Jan-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	ND	0.250					0.00603	0	10	
Barium	0.2128	1.00					0.2144	0	10	J
Cadmium	ND	0.250					0.00932	0	10	
Chromium	ND	0.250					0.00653	0	10	
Lead	ND	0.250					0.00356	0	10	
Selenium	ND	0.250					0.01397	0	10	
Silver	ND	0.250					-0.00001	0	10	

The following samples were analyzed in this batch: HS22010208-01

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: R400179 (0) **Instrument:** WetChem_HS **Method:** PH SOIL BY SW9045D

DUP Sample ID: **HS21121174-01DUP** Units: **pH Units** Analysis Date: **11-Jan-2022 13:57**
Client ID: Run ID: **WetChem_HS_400179** SeqNo: **6459636** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.03	0.100					7.99	0.499	10	
Temp Deg C @pH	20.5	0					21	2.41	10	

The following samples were analyzed in this batch: HS22010208-01

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: R400258 (0) **Instrument: WetChem_HS** **Method: REACTIVE SULFIDE**

MBLK Sample ID: **MBLK-R400258** Units: **mg/Kg** Analysis Date: **12-Jan-2022 13:00**
Client ID: Run ID: **WetChem_HS_400258** SeqNo: **6461192** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Sulfide	ND	100								

LCS Sample ID: **LCS-R400258** Units: **mg/Kg** Analysis Date: **12-Jan-2022 13:00**
Client ID: Run ID: **WetChem_HS_400258** SeqNo: **6461191** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Sulfide	72	100	100	0	72.0	20 - 120				J

MS Sample ID: **HS22010208-01MS** Units: **mg/Kg** Analysis Date: **12-Jan-2022 13:00**
Client ID: **2A04007-01** Run ID: **WetChem_HS_400258** SeqNo: **6461193** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Sulfide	64	100	100	0	64.0	20 - 120				J

The following samples were analyzed in this batch: HS22010208-01

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: R400262 (0) **Instrument: UV-2450** **Method: REACTIVE CYANIDE**

MBLK Sample ID: **MBLK-R400262** Units: **mg/Kg** Analysis Date: **12-Jan-2022 14:00**
Client ID: Run ID: **UV-2450_400262** SeqNo: **6461216** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	ND	100								

LCS Sample ID: **LCS-R400262** Units: **mg/Kg** Analysis Date: **12-Jan-2022 14:00**
Client ID: Run ID: **UV-2450_400262** SeqNo: **6461215** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.64	100	10	0	6.40	5 - 100				J

MS Sample ID: **HS22010208-01MS** Units: **mg/Kg** Analysis Date: **12-Jan-2022 14:00**
Client ID: **2A04007-01** Run ID: **UV-2450_400262** SeqNo: **6461217** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.67	100	10	0	6.70	5 - 100				J

The following samples were analyzed in this batch: HS22010208-01

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QC BATCH REPORT

Batch ID: R400329 (0) **Instrument:** WetChem_HS **Method:** FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B

DUP Sample ID: **HS22010397-01DUP** Units: **°F** Analysis Date: **13-Jan-2022 14:00**
Client ID: Run ID: **WetChem_HS_400329** SeqNo: **6462704** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Flash Point	> 212	50.0					0	0	30	

The following samples were analyzed in this batch: HS22010208-01

ALS Houston, US Date: 13-Jan-22

Client: Permian Basin Environmental Lab, LP
Project: 2A04007
WorkOrder: HS22010208

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
Date	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter

ALS Houston, US Date: 13-Jan-22

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
Texas	T104704231-21-28	30-Apr-2022

ALS Houston, US Date: 13-Jan-22

Sample Receipt Checklist

Work Order ID: HS22010208 **Date/Time Received:** 06-Jan-2022 10:20

Client Name: Permian Basin Lab **Received by:** Paresh M. Giga

Completed By:	/S/ Eric Widjaja	06-Jan-2022 19:05	**Reviewed by:**	/S/ Anna Kinchen	07-Jan-2022 11:52
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Soil** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:N/A
Samplers name present on COC?	Yes ☐	No ☑	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.0°C UC/C	IR #31	
Cooler(s)/Kit(s):	Red		
Date/Time sample(s) sent to storage:	01/06/2022 19:10		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

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: Permian Basin Environmental Lab, LP
Company Address: 1400 Rankin Hwy
City/State/Zip: Midland, Texas 79701
Telephone No: 432-686-7235 Fax No:
Sampler Signature: e-mail: brentbarron@gmail.com

Project Name: Subcontract-ALS
Project #: PBELAB
Project Loc: Midland, Texas
PO #:
Report Format: X 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_3 250 ml Poly	HCl 3 Voa Vials	H_2SO_4 2x250 poly 1 500mL Amber	NaOH 500mL poly	$Na_2S_2O_3$	None 500 mL Poly	NaOH/ZnAc	Matrix: DW=Drinking Water SL=Sludge / GW = Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	TCLP 8 RCRA Metals	RCI	5 day TAT
	2A04007-01			01/04/22	0:00		1	x								S	X	X	x

HS2201020B
Permian Basin Environmental Lab, LP
2A04007

Special Instructions:

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

Relinquished by:	Date	Time	Received by:	Date	Time
Brent Barron	1/5/2022	1600			
Relinquished by:	Date	Time	Received by: 1/6/2022 10:20	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

U.C. 1.6 #31 Cf=0

Red JAN 0 6 2022

FedEx
TRK# 0200 8148 4540 9699

THU - 06 JAN AA
STANDARD OVERNIGHT

AB SGRA Red

77099
TX-US
IAH

404796 05Jan2022 MAFA 56DG2/01EF/1B23

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

January 13, 2022

Brent Barron
PBE LAB
1400 Ranking HWY
Midland, TX 79701
TEL: (432) 686-7235
FAX:

RE: 2A04007

Dear Brent Barron: Order No.: 22010367

Summit Environmental Technologies, Inc. received 1 sample(s) on 1/7/2022 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Brian J. Fackelman
Project Manager
3310 Win St.
Cuyahoga Falls, Ohio 44223

Summit Environmental Technologies, Inc.
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Cuyahoga Falls, Ohio 44223
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Case Narrative

WO#: **22010367**
Date: **1/13/2022**

CLIENT: PBE LAB
Project: 2A04007

WorkOrder Narrative:
22010367: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

 The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Summit Environmental Technologies, Inc.
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Workorder Sample Summary

WO#: **22010367**
13-Jan-22

CLIENT: PBE LAB
Project: 2A04007

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
22010367-001	2A0407-01		1/4/2022	1/7/2022 11:15:00 AM	Solid

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC. Analytical Laboratories

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Website: http://www.settek.com

DATES REPORT

WO#: **22010367**

13-Jan-22

Client: PBE LAB

Project: 2A04007

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22010367-001A	2A0407-01	1/4/2022	Solid	Extractable Organic Halides (EOX) (9(			1/10/2022 11:00:00 AM
				TCLP Volatiles Analysis by SW8260B		1/11/2022 3:00:00 PM	1/12/2022 3:34:00 PM

Original

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

WO#: **22010367**
Date Reported: **1/13/2022**
Company: PBE LAB
Address: 1400 Ranking HWY
Midland TX 79701
Received: 1/7/2022
Project#: 2A04007

TCLP Volatiles Analysis by SW8260B

Client ID#	Lab ID#	Collected	Analyte	Rep Lmt	Result	Units	Matrix	Method	DF	RegLvl	Run	Analyst
2A0407-01	001	1/4/2022	Benzene	0.250	ND	mg/L	Solid	EPA 8260 B	50	0.500	1/12/2022	SLV
2A0407-01	001	1/4/2022	Surr: 4-Bromofluorobenzene	70-130	98.9	%Rec	Solid	EPA 8260 B	50		1/12/2022	SLV
2A0407-01	001	1/4/2022	Surr: Dibromofluoromethane	70-130	101	%Rec	Solid	EPA 8260 B	50		1/12/2022	SLV
2A0407-01	001	1/4/2022	Surr: Toluene-d8	70-130	100	%Rec	Solid	EPA 8260 B	50		1/12/2022	SLV

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Analytical Report

(consolidated)

WO#: **22010367**

Date Reported: **1/13/2022**

Lab ID: 22010367-001 **Collection Date:** 1/4/2022

Client Sample ID 2A0407-01 **Matrix:** SOLID

Analysis	Result	MDL	PQL	Qual	Units	Dilution	Batch	Date Analyzed
EXTRACTABLE ORGANIC HALIDES (EOX) (9023)					**EPA 9023 B R2 1996**			Analyst: **KMW**
Extractable Organic Halides	ND	11.7	50.0	U	mg/Kg	1	R138723	1/10/2022 11:00:00 AM
TCLP VOLATILES ANALYSIS BY SW8260B					**EPA 8260 B**			Analyst: **SLV**
Benzene	ND	0.0125	0.250	U	mg/L	50	54279	1/12/2022 3:34:00 PM
Surr: 4-Bromofluorobenzene	98.9		70-130		%Rec	50	54279	1/12/2022 3:34:00 PM
Surr: Dibromofluoromethane	101		70-130		%Rec	50	54279	1/12/2022 3:34:00 PM
Surr: Toluene-d8	100		70-130		%Rec	50	54279	1/12/2022 3:34:00 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit

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QC SUMMARY REPORT

WO#: **22010367**
13-Jan-22

Client: PBE LAB
Project: 2A04007 **BatchID:** **54279**

Sample ID: **MB-54279** SampType: **MBLK** TestCode: **TCLP-VOC-M** Units: **mg/L** Prep Date: **1/11/2022** RunNo: **138866**
Client ID: **PBS** Batch ID: **54279** TestNo: **SW8260** **SW1311M** Analysis Date: **1/12/2022** SeqNo: **3664613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.250									U
Surr: 4-Bromofluorobenzene	2490		2500		99.6	70	130				
Surr: Dibromofluoromethane	2580		2500		103	70	130				
Surr: Toluene-d8	2430		2500		97.2	70	130				

Sample ID: **22010409-001AMS** SampType: **MS** TestCode: **TCLP-VOC-M** Units: **mg/L** Prep Date: RunNo: **138866**
Client ID: **BatchQC** Batch ID: **54279** TestNo: **SW8260** **SW1311M** Analysis Date: **1/12/2022** SeqNo: **3664614**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.914	0.250	1.00	0	91.4	49.2	145				
Surr: 4-Bromofluorobenzene	2550		2500		102	70	130				
Surr: Dibromofluoromethane	2520		2500		101	70	130				
Surr: Toluene-d8	2500		2500		99.9	70	130				

Sample ID: **22010409-001AMSD** SampType: **MSD** TestCode: **TCLP-VOC-M** Units: **mg/L** Prep Date: RunNo: **138866**
Client ID: **BatchQC** Batch ID: **54279** TestNo: **SW8260** **SW1311M** Analysis Date: **1/12/2022** SeqNo: **3664615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.941	0.250	1.00	0	94.1	49.2	145	0.914	2.80	25	
Surr: 4-Bromofluorobenzene	2570		2500		103	70	130		0	25	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original
Page 7 of 15

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Analytical Laboratories

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22010367**

13-Jan-22

Client: PBE LAB
Project: 2A04007 **BatchID:** **54279**

Sample ID: **22010409-001AMSD** SampType: **MSD** TestCode: **TCLP-VOC-M** Units: **mg/L** Prep Date: RunNo: **138866**
Client ID: **BatchQC** Batch ID: **54279** TestNo: **SW8260** **SW1311M** Analysis Date: **1/12/2022** SeqNo: **3664615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	2520		2500		101	70	130		0	25	
Surr: Toluene-d8	2480		2500		99.3	70	130		0	25	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original
Page 8 of 15

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QC SUMMARY REPORT

WO#: **22010367**

13-Jan-22

Client: PBE LAB
Project: 2A04007 **BatchID:** **R138423**

Sample ID: **LCS** SampType: **LCS** TestCode: **VOC-MSTR_** Units: **%Rec** Prep Date: RunNo: **138423**
Client ID: **LCSW** Batch ID: **R138423** TestNo: **SW8260** Analysis Date: **1/3/2022** SeqNo: **3653693**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	50.5		50.00		101	70	130				
Surr: Dibromofluoromethane	49.8		50.00		99.7	70	130				
Surr: Toluene-d8	50.0		50.00		100	70	130				

Sample ID: **MB** SampType: **MBLK** TestCode: **VOC-MSTR_** Units: **%Rec** Prep Date: RunNo: **138423**
Client ID: **PBW** Batch ID: **R138423** TestNo: **SW8260** Analysis Date: **1/3/2022** SeqNo: **3653694**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	48.5		50.00		97.0	70	130				
Surr: Dibromofluoromethane	49.6		50.00		99.3	70	130				
Surr: Toluene-d8	49.9		50.00		99.9	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22010367**
13-Jan-22

Client: PBE LAB
Project: 2A04007 **BatchID:** **R138723**

Sample ID: **MB-R138723** SampType: **MBLK** TestCode: **EOX_S(9023)** Units: **mg/Kg** Prep Date: RunNo: **138723**
Client ID: **PBS** Batch ID: **R138723** TestNo: **SW9023** Analysis Date: **1/10/2022** SeqNo: **3660799**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	ND	50.0									U

Sample ID: **LCS-R138723** SampType: **LCS** TestCode: **EOX_S(9023)** Units: **mg/Kg** Prep Date: RunNo: **138723**
Client ID: **LCSS** Batch ID: **R138723** TestNo: **SW9023** Analysis Date: **1/10/2022** SeqNo: **3660800**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	51.0	50.0	50.00	0	102	81	114				

Sample ID: **22010291-001AMS** SampType: **MS** TestCode: **EOX_S(9023)** Units: **mg/Kg** Prep Date: RunNo: **138723**
Client ID: **BatchQC** Batch ID: **R138723** TestNo: **SW9023** Analysis Date: **1/10/2022** SeqNo: **3660813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	480	50.0	500.0	0	96.0	78	116				

Sample ID: **22010291-001AMSD** SampType: **MSD** TestCode: **EOX_S(9023)** Units: **mg/Kg** Prep Date: RunNo: **138723**
Client ID: **BatchQC** Batch ID: **R138723** TestNo: **SW9023** Analysis Date: **1/10/2022** SeqNo: **3660814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	500	50.0	500.0	0	100	78	116	480.0	4.08	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **22010367**
13-Jan-22

Client: PBE LAB
Project: 2A04007 **BatchID:** **R138723**

Sample ID: **22010291-001AMSD**	SampType: **MSD**	TestCode: **EOX_S(9023)**	Units: **mg/Kg**	Prep Date:	RunNo: **138723**
Client ID: **BatchQC**	Batch ID: **R138723**	TestNo: **SW9023**		Analysis Date: **1/10/2022**	SeqNo: **3660814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **MB-R138723**	SampType: **MBLK**	TestCode: **EOX_S(9023)**	Units: **mg/Kg**	Prep Date:	RunNo: **138723**
Client ID: **PBS**	Batch ID: **R138723**	TestNo: **SW9023**		Analysis Date: **1/10/2022**	SeqNo: **3660815**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	ND	50.0									U

Sample ID: **MB-R138723**	SampType: **MBLK**	TestCode: **EOX_S(9023)**	Units: **mg/Kg**	Prep Date:	RunNo: **138723**
Client ID: **PBS**	Batch ID: **R138723**	TestNo: **SW9023**		Analysis Date: **1/10/2022**	SeqNo: **3660822**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	ND	50.0									U

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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Website: http://www.settek.com

QC SUMMARY REPORT

WO#: **22010367**

13-Jan-22

Client: PBE LAB
Project: 2A04007 **BatchID:** **R138723**

Sample ID: **22010392-001AMS** SampType: **MS** TestCode: **EOX_Oil(902** Units: **mg/L** Prep Date: RunNo: **138723**
Client ID: **BatchQC** Batch ID: **R138723** TestNo: **SW9023** Analysis Date: **1/10/2022** SeqNo: **3660818**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	1650	200.0	1650	72.00	95.6	78	116				

Sample ID: **22010392-001AMSD** SampType: **MSD** TestCode: **EOX_Oil(902** Units: **mg/L** Prep Date: RunNo: **138723**
Client ID: **BatchQC** Batch ID: **R138723** TestNo: **SW9023** Analysis Date: **1/10/2022** SeqNo: **3660819**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Organic Halides	1700	200.0	1650	72.00	98.7	78	116	1650	2.99	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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Cuyahoga Falls, Ohio 4422
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Website: http://www.settek.co

Qualifiers and Acronyms

WO#: **22010367**
Date: **1/13/2022**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B/MB+	The analyte was detected in the associated blank.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor
DF	Dilution Factor	**RF**	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Accreditation Program Analytes Report

WO#: **22010367**
13-Jan-22

Client: PBE LAB
Project: 2A04007

State: TX
Program Name:)W_NPW_SCM_N

Sample ID	Matrix	Test Name	Analyte	Status
22010367-001A	Solid	Extractable Organic Halides (EOX) (9023)	Extractable Organic Halides	A
	Solid	TCLP Volatiles Analysis by SW8260B	Benzene	N

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Original #1

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Phone: 432-686-7235

2201036?

Project Manager: Brent Barron
Company Name: Permian Basin Environmental Lab, LP
Company Address: 1400 Rankin Hwy
City/State/Zip: Midland, Texas 79701
Telephone No: 432-686-7235 Fax No:
Sampler Signature: e-mail: brentbarron@gmail.com

Project Name: Subcontract-SET
Project #: PBELAB
Project Loc: Midland, Texas
PO #:
Report Format: X 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_3 250 ml Poly	HCl 3 Voa Vials	H_2SO_4 2x250 poly 1 500mL Amber	NaOH 500mL poly	$Na_2S_2O_3$	None 500 mL Poly	NaOH/ZnAc	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP Benzene	TOX	5 day TAT
	2A04007-01			01/04/22	0:00		1	X									S		X	X	X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Brent Barron	1/5/2022	1600			
Relinquished by:	Date	Time	Received by: Tegan Nichols	Date 1/7/22	Time 1115
Relinquished by:	Date	Time	Received by:	Date	Time

Laboratory Comments:

	Y	N
Sample Containers Intact?		
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

2.6-1.0= 1.6 °C Fedex, cooler ice

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Website: http://www.settek.com

Sample Log-In Check List

Client Name: **PBE-TX-79701** Work Order Number: **22010367** RcptNo: **1**

Logged by:	**Tegan A. Richards**	**1/7/2022 11:15:00 AM**	Tegan Richards
Completed By:	**Jacqueline Rasile**	**1/8/2022 1:17:46 PM**	
Reviewed By:	**Brian J. Fackelman**	**1/10/2022 5:06:00 PM**	

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Not Present			

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ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-22-00016

Permian Basin Environmental Lab
Brent Barron
10014 SCR 1213
Midland, TX 79706
432-686-7235
brentbarron@pbelab.com, sara@pbelab.com

PO Number: **PBELAB**

Questions regarding this analytical report should be addressed to ARS project manager, Gabe Culberson, who can be reached by email at projectmanagers@aaa.aleutfederal.com.

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. A statement of uncertainty for each analysis is available upon request. I authorize release and issuance of this report on the date signed below.

		Laboratory Management, ARS Aleut Analytical
Signature	**Date**	**Title**

This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.

LELAP Cert # 01949

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Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	2785
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312021-2
New Jersey	LA009
New York	64078
Pennsylvania	68-04294-010
Texas	T104704447-21-17
Utah	LA011312021-12
Washington	C1010

For additional information related to the specific matrices, methods, and analytes recognized by each accrediting body, contact us at QA@aaa.aleutfederal.com for additional information.

ARS-001-013 r1.6
Revision Date: 01.05.2022

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ARS Aleut Analytical, LLC
Analytical Reports

for

Permian Basin Environmental Lab

Case Narrative

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PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE
TO ARS SAMPLE LABORATORY IDs

Client Sample ID	ARS Aleut Analytical Sample ID
2A04007-01	ARS1-22-00016-001

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	01/04/22 00:00	01/07/22	GAM-A-SO	As Received	01/11/22 08:02	01/12/22 08:55

SAMPLE RECEIPT/PREP

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. Turnaround time was set at 10 work days.

ANALYTICAL METHODS

Be-7, Bi-212, Bi-214, Ir-192, K-40, Pa-234, Pb-210, Pb-214, Ra-224, Ra-226, Ra-228, Sc-46, Th-228, Tl-208, Tl-210, Total NORM Activity, Total NORM Gamma, U-235, and U-238 analyses were performed using **PALA-RAD-007, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)"**.

ANALYTICAL RESULTS

All QC criteria were met.

ARS Aleut Analytical

Notes (Case Narrative)

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23)
DO	Duplicate Original
DUP	Sample Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MBL	Method Blank
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NC	Not Calculated
NP	Not Provided
NR	Not Referenced
PQL	Practical Quantitation Limit

Data Qualifiers:

B	The result of both the method blank and the target sample are above the MDL.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q	One or more quality control criteria failed.
U	Result is below the MDA, MDL, PQL, LOD, or LOQ
*****	LCS/LCSD or Sample DUP fails all Duplicate criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded
E	Exceeds MCL
**	Reporting Limit is higher than MCL; Target cannot be detected
‡	Method/Matrix/Analyte not accredited for this certification

Radiochemistry Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.

2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.

3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.

4.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).

5.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).

6.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).

7.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).

8.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.

9.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**:
Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-10); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02)

10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)

11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

General Comments:

1.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of “M” or “Mod” to the procedure number (i.e. 901.1M, 901.1 Mod).

2.0) All NIOSH method results are reported without blank corrections applied.

3.0) Basis: “As Received” = analyzed as received from client; “Dry” = dried prior to being analyzed; “Dry Weight Corrected” = analyzed as received; result corrected for percent moisture.

ARS Aleut Analytical
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(225) 346-6059 • FAX (225) 381-2996

ARS Aleut Analytical, LLC
Analytical Reports

for

Permian Basin Environmental Lab

Analytical Results

ARS Aleut Analytical
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ARS Sample Delivery Group: ARS1-22-00016
Client Sample ID: 2A04007-01
Sample Collection Date: 01/04/22 0:00
Sample Matrix: Soil/Solid/Sludge
Percent Solids: N/A

Request or PO Number: PBELAB
ARS Sample ID: ARS1-22-00016-001
Date Received: 01/07/22
Report Date: 01/21/22

Radiochemistry

Analysis Method: EPA 901.1M

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Be-7	-0.209	0.562	0.716	0.358	NP	U	pCi/g	01/12/22 8:55	EEC	N/A
Bi-212	-0.297	0.615	0.751	0.376	NP	U	pCi/g	01/12/22 8:55	EEC	N/A
Bi-214	0.693	0.172	0.139	0.070	NP		pCi/g	01/12/22 8:55	EEC	N/A
K-40	4.343	1.102	0.738	0.369	NP		pCi/g	01/12/22 8:55	EEC	N/A
Pb-210	-0.354	1.106	1.630	0.815	NP	U	pCi/g	01/12/22 8:55	EEC	N/A
Pb-214	0.707	0.172	0.202	0.101	NP		pCi/g	01/12/22 8:55	EEC	N/A
Ra-226	1.692	1.165	1.610	0.805	NP		pCi/g	01/12/22 8:55	EEC	N/A
Ra-228	0.090	0.258	0.328	0.164	NP	U	pCi/g	01/12/22 8:55	EEC	N/A
Sc-46	-0.046	0.085	0.099	0.050	NP	U	pCi/g	01/12/22 8:55	EEC	N/A
Th-228	0.256	0.093	0.116	0.058	NP		pCi/g	01/12/22 8:55	EEC	N/A
Tl-208	0.065	0.046	0.060	0.030	NP		pCi/g	01/12/22 8:55	EEC	N/A
U-235	0.103	0.321	0.445	0.223	NP	U	pCi/g	01/12/22 8:55	EEC	N/A
U-238	-0.485	1.249	1.780	0.890	NP	U	pCi/g	01/12/22 8:55	EEC	N/A
Total NORM Gamma	7.949	N/A	N/A	N/A	NP		pCi/g	01/12/22 8:55	EEC	N/A
Total NORM Activity	12.488	N/A	N/A	N/A	NP		pCi/g	01/12/22 8:55	EEC	N/A

ARS Aleut Analytical
2609 North River Road • Port Allen, Louisiana 70767
(225) 346-6059 • FAX (225) 381-2996

ARS Aleut Analytical, LLC
Analytical Reports

for

Permian Basin Environmental Lab

Batch QC

ARS Aleut Analytical

QC Results per Analytical Batch

Analytical Batch	**ARS1-B22-00050**
SDG	**ARS1-22-00016**
Analysis	**Gamma Spec (Solid)**
Method	**EPA 901.1M**
Analysis Code	**GAM-A-SO**
Report Units	**pCi/g**

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	**Recovery (%):**	**> 75**	**< 125**
Matrix Spike	**Recovery (%):**	**> 60**	**< 140**
Duplicate	**Duplicate Error Ratio (DER):**		**< 3**
	Relative Percent Difference (RPD %):		**≤ 25**

Laboratory Control Sample

			Analysis Date	01/12/22 08:19	Analysis Technician	EEC	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**Expected Value**	**LCS Rec (%)**	**MDC**
ARS1-B22-00050-01	**LCS**	AM-241	3.717E+4	2.882E+3	4.000E+4	92.9	893.100
ARS1-B22-00050-01	**LCS**	CO-60	6.995E+4	3.764E+3	6.719E+4	104.1	1.586E+3
ARS1-B22-00050-01	**LCS**	CS-137	5.596E+4	2.543E+3	5.727E+4	97.7	409.100

Duplicate RER/DER/RPD

		Analysis Date	01/12/22 08:31	Analysis Technician	EEC	
Analyte	**Results LCS**	**CSU LCS (2s)**	**Results LCSD**	**CSU LCSD (2s)**	**DER**	**RPD**
AM-241	3.717E+4	2.882E+3	3.715E+4	2.871E+3	0.012	0.1
CO-60	6.995E+4	3.764E+3	6.574E+4	4.546E+3	1.399	6.2
CS-137	5.596E+4	2.543E+3	5.610E+4	2.547E+3	0.078	0.3

Method Blank

		Analysis Date	01/12/22 08:18	Analysis Technician	EEC	
Analysis Batch Sample ID	**QC Type**	**Analyte**	**Results**	**CSU (2s)**	**MDC**	**Qual**
ARS1-B22-00050-03	**MBL**	BE-7	-0.028	0.379	0.521	U
ARS1-B22-00050-03	**MBL**	BI-212	0.164	0.313	0.403	U
ARS1-B22-00050-03	**MBL**	BI-214	0.005	0.199	0.258	U
ARS1-B22-00050-03	**MBL**	IR-192	0.012	0.038	0.052	U
ARS1-B22-00050-03	**MBL**	K-40	0.080	0.409	0.774	U
ARS1-B22-00050-03	**MBL**	PA-234	0.149	0.106	0.166	U
ARS1-B22-00050-03	**MBL**	PB-210	0.714	0.748	1.070	U
ARS1-B22-00050-03	**MBL**	PB-214	-0.023	0.127	0.189	U
ARS1-B22-00050-03	**MBL**	RA-224	-0.767	1.186	2.060	U
ARS1-B22-00050-03	**MBL**	RA-226	0.285	1.084	1.520	U
ARS1-B22-00050-03	**MBL**	RA-228	-0.027	0.215	0.302	U
ARS1-B22-00050-03	**MBL**	SC-46	-0.006	0.059	0.075	U
ARS1-B22-00050-03	**MBL**	TH-228	-0.040	0.103	0.150	U
ARS1-B22-00050-03	**MBL**	TL-208	-0.005	0.061	0.086	U
ARS1-B22-00050-03	**MBL**	TL-210	-0.005	0.055	0.075	U
ARS1-B22-00050-03	**MBL**	U-235	-0.053	0.349	0.419	U
ARS1-B22-00050-03	**MBL**	U-238	-0.286	0.857	1.290	U

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ARS Aleut Analytical, LLC
Analytical Reports

for

Permian Basin Environmental Lab

Sample Management Records

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: Permian Basin Environmental Lab, LP

Company Address: 1400 Rankin Hwy

City/State/Zip: Midland, Texas 79701

Telephone No: 432-686-7235 Fax No:

Sampler Signature: e-mail: brentbarron@gmail.com

Project Name: Subcontract-ARS

Project #: PBELAB

Project Loc: Midland, Texas

PO #:

Report Format: X 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 250ml Poly	HCl 3 Voa Vials	H_2SO_4 2x250 poly 1 500mL Amb	NaOH 500mL poly	$Na_2S_2O_3$	None 500 mL Poly	NaOH/ZnAc	Matrix: DW=Drinking Water SL=Sludge / GW = Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: NORM Analysis	10 day TAT
	2A04007-01			01/04/22	0:00		1	x								S	X	x

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Brent Barron	1/5/2022	1600			
Relinquished by:	Date	Time	Received by:	1/7/22	11:43
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

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Port Allen Laboratory

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Page 1 of 2

SDG Report - Samples and Containers

SDG Specific Data							
SDG	ARS1-22-00016			TAT Days	10 Business Days	Project Type	Environmental
Sample Count	1	Rpt Level	2	Date Received	01/07/2022	COC Number	
Client	Permian Basin Environmental Lab			Discrepancy Resol	N/A	PO Number	PBELAB
Client Code	703			Client Deadline	01/21/2022	Job Number	
Profile Number	PN-00783					Job Location	
Comment							

Samples and Containers Checked In Thus Far

FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments
001	2A04007-01	Soil/Solid/Sludge	01/04/2022 00:00	01/04/2022 00:00	H	30	10	PrePrep	
	IC_ID	**Cnt**	**Container Type**	**Container Size**	**pH Orig**	**pH Final**	**Temp (C)**		**Comments**
	410276	1	HDP Container	Plastic Zip Bag					

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Page 2 of 2

SDG Report - Analysis Assignments

SDG	ARS1-22-00016	Sample Count	1
Client	Permian Basin Environmental Lab	Analysis Count	1-1

Sample Count Totals Per Analysis

Analysis Code	Analysis Description	In/Out	Samples Count
GAM-A-SO	Gamma Spec (Short) in (Soil, Sludge, Waste, Sediment,Biota [SO, BI, VG])	I	1

Analyses Assigned Per Fraction

Fraction	Analysis Code	X = Assigned
001	GAM-A-SO	X

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DQO Report for SDG

ARS1-22-00016

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Page 1 of 2

Client Name: Permian Basin Environmental Lab Profile Name: Midland TX Report Level: 2

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
GAM-A-SO	WGAM	pCi	g	N/A	PALA-RAD-007						
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
	Be-7 (13966-02-4)				75/125	60/140	30/120	40/110	1	25	N/A
	Bi-212 (14913-49-6)				75/125	60/140	30/120	40/110	1	25	N/A
	Bi-214 (14733-03-0)				75/125	60/140	30/120	40/110	1	25	N/A
	Ir-192 (14694-69-0)				75/125	60/140	30/120	40/110	1	25	N/A
	K-40 (13966-00-2)				75/125	60/140	30/120	40/110	1	25	N/A
	Pb-210 (14255-04-0)				75/125	60/140	30/120	40/110	1	25	N/A
	Pb-214 (15067-28-4)				75/125	60/140	30/120	40/110	1	25	N/A
	Ra-224 (13233-32-4)				75/125	60/140	30/120	40/110	1	25	N/A
	Ra-226 (13982-63-3)				75/125	60/140	30/120	40/110	1	25	N/A
	Ra-228 (15262-20-1)				75/125	60/140	30/120	40/110	1	25	N/A
	Sc-46 (13967-63-0)				75/125	60/140	30/120	40/110	1	25	N/A
	Th-228 (14274-82-9)				75/125	60/140	30/120	40/110	1	25	N/A
	Tl-208 (14913-50-9)				75/125	60/140	30/120	40/110	1	25	N/A
	Tl-210				75/125	60/140	30/120	40/110	1	25	N/A
	U-235 (15117-96-1)				75/125	60/140	30/120	40/110	1	25	N/A
	U-238 (7440-61-1)				75/125	60/140	30/120	40/110	1	25	N/A
	Pa-234 (15100-28-4)				75/125	60/140	30/120	40/110	1	25	N/A
	Total NORM Activity				75/125	60/140	30/120	40/110	1	25	N/A
	Total NORM Gamma				75/125	60/140	30/120	40/110	1	25	N/A

DQO Report for SDG

ARS1-22-00016

Analysis Code	Fraction	Units	Aliquot	Conductivity	Analyte Count
GAM-A-SO	001	pCi	g	N/A	19
		Group		**Analyte**	
		NORM		Be-7	
		NORM		Bi-212	
		NORM		Bi-214	
		NORM		Ir-192	
		NORM		K-40	
		NORM		Pa-234	
		NORM		Pb-210	
		NORM		Pb-214	
		NORM		Ra-224	
		NORM		Ra-226	
		NORM		Ra-228	
		NORM		Sc-46	
		NORM		Tl-208	
		NORM		Tl-210	
		NORM		U-235	
		NORM		U-238	
		NORM		Total NORM Activity	
		NORM		Total NORM Gamma	
		NORM		Th-228	

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PAL Sample Receipt Inspection Form

Client Name: PBELab

SDG: ARS1-22-00016

Sample Receipt Inspection Form
PALA-SR-001-FM-01 r 00.1
Effective 08/30/2019
Page 1 of 1

Sample Custodian: Morgan Survey Start Date: 4/7/22 Survey Start Time: 12:24

Thermometer ID: E0064010013 Calibration Due Date: 2-1-22 pH Paper Lot# NA

Exposure Rate Meter + Probe Unit ID: PR293744/242885 Calibration Due Date: 2-5-22 Background: 10 µR/hr

Count Rate Meter + Probe Unit ID: PR213068/211546 Calibration Due Date: 1-29-22 Background: 30 cpm

Delivery Type (circle one): Direct Lock Box Commercial Carrier: F.E.E. Total # of ESCs: 1

*True temperature is recorded which includes any applicable correction factors.

External Shipping Container Tracking:	Exposure Rate (µR/hr) (limit <500 µR/hr)	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* (°C)	TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP)
A: 814845409677	10	40	50	NA	AQ WD WG WO
B:					WS WW SI UR
C:					SO OL BI VG
D:					WP SM AF
E:					
F:					

Visual Inspection: External Shipping Container	(Circle response)		
Good Condition with no Leaks or Tears	Yes	No	
Marked Radioactive	Yes	No	
UN2910	Yes	No	
Security Seals	Yes	No	
If yes, intact?	Yes	No	N/A
Internal Shipping Container			
COC's Present	Yes	No	
Well packaged container with no signs of leakage	Yes	No	

COC/Sample Inspection	(Circle response)		
Sample Containers in good condition	Yes	No	
No spills or leaks	Yes	No	
Marked Radioactive	Yes	No	
Durable labels w/indelible ink	Yes	No	
COC reliquished/received correctly	Yes	No	
Adequate volume/filled correctly	Yes	No	
Hold Time sufficient for analysis	Yes	No	
For VOC/Radon, Head space?	Yes	No	N/A
If yes, <6mm?	Yes	No	N/A
# of containers received matches # on COC	Yes	No	
Samples received on ice?	Yes	No	
Type (circle one):	Bagged Ice	Loose Ice	Blue Ice N/A

Comments:

ENVIRONMENTAL SOLUTIONS | QUALITY CONSCIOUS

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ALA Sample Survey Form

Client Name: PBELab

SDG: ARS1-22-00016

Sample Survey Form
PALA-SR-001-FM-02 r 0.1
Effective 08/30/2019

Pipette ID: NA Tip Lot#: NA

Disposible pipette lot#: NA

Sample ID from Client on COC or Sample	ESC Letter	Sample Container Type	Approx. Fill Level (%)	pH <2 is Acceptable: pH As Rec'd	pH <2 is Acceptable: pH Adjusted	Acid Lot # or Ind container temp (°C)	Vol. of Acid Used (mL)	Acceptance Limits <100 cpm/cm: cpm
240 4007-01	A	Ziploc	90	NA	NA	NA	NA	60

Sample Custodian: Morgan Survey End Date: 1/7/22 Survey/pH End Time: 12:27

pH re-check required? YES or NO *NOTE: Any metals sample acidified at sample receiving must be re-checked after a 24 hour hold.*

If YES: pH re-check date/time: _____/_____ Analyst: _____ pH strip lot #: _____

Were all re-checked samples' pH < 2? YES or NO*

**If no, complete and send to Project Management:*
1. Section A of PALA-SR-001-FM-05 (24 Hour Hold pH Readjustment)
2. SR section of PALA-SR-001-FM-03 (Discrepant Sample Receipt Report).

ENVIRONMENTAL SOLUTIONS | QUALITY CONSCIOUS

FedEx Express Package US Airbill

FedEx Tracking Number 8148 4540 9677

Form ID No. 0200

Recipient's Copy

1 From

Date

Sender's Name

Phone

Company

Address

Dept./Floor/Suite/Room

City State ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone

Company

Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City State ZIP

Hold Weekday
FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Hold Saturday
FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8148 4540 9677

4 Express Package Service * To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

FedEx Envelope* FedEx Pak FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required — Package may be left without obtaining a signature for delivery.

Direct Signature — Someone at recipient's address may sign for delivery.

Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.

No Yes — As per attached Shipper's Declaration. Yes — Shipper's Declaration not required. Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip. Acct. No.

Sender — Acct. No. in Section 1 will be billed. Recipient Third Party Credit Card Cash/Check

Total Packages Total Weight ____ lbs.

Credit Card Auth.

644

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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APPENDIX C
PHOTOGRAPHIC DOCUMENTATION

Photograph No 1.	
Date: December 30, 2021	Direction: East
Description: View of release area.	

Photograph No 2.	
Date: December 30, 2021	Direction: West
Description: View of release area.	

Photograph No 3.	
Date: January 4, 2022	Direction: Southeast
Description: View of soil remediation adjacent to LACT unit.	

Photograph No 4.	
Date: January 5, 2022	Direction: West
Description: View of remediation west of LACT unit.	

Photograph No 5.	
Date: January 28, 2022	Direction: South
Description: Backfilling of excavation.	

Photograph No 6.	
Date: January 28, 2022	Direction: East
Description: View of completed backfilling of site.	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 90987

CONDITIONS

Operator:	OGRID:
PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	34053
	Action Number: 90987
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	None	3/17/2022