



2617 W. Marland Blvd | Hobbs, NM 8824

**August 10, 2023**

Mike Bratcher  
New Mexico Oil Conservation Division (NMOCD)  
506 W. Texas Ave.  
Artesia, NM 88210

Shelly Tucker  
Bureau of Land Management  
620 E. Greene St.  
Carlsbad, NM 88220

**RE: Site Investigation Summary and Proposed Activities  
West B4 Release (nAPP2221061094)  
Plains All American Pipeline, LP  
U/L "F", Sec. 10, T17S, R31E  
Eddy County, New Mexico**

Mr. Bratcher and Ms. Tucker:

## **INTRODUCTION**

This *Site Investigation Summary and Proposed Activities* has been prepared on behalf of Plains All American Pipeline, LP (Plains) for their West B4 Reportable release site (nAPP2221061094). On July 27, 2022, Plains discovered a crude oil release from a 4-Inch pipeline located downstream of the associated LACT unit at the West B4 Tank Battery. The initial Release Notification (NMOCD Form C-141) indicated that a pipeline failure due to internal corrosion resulted in the release of approximately 7.6 barrels (bbls) of crude oil. A copy of the NMOCD Form C-141 and volume calculation sheet is provided as Attachment #1. A "Site Location Map" is provided as Attachment #2.

## **BACKGROUND**

Upon discovering the release, heavily impacted material was excavated by hand and stockpiled on-site atop an impermeable plastic liner by an alternative environmental contractor. During the removal of impacted material, historical soil impacts not related to the subject pipeline were encountered across the site. The floor and sidewalls of the excavated area were advanced beyond the margins of the subject release until it became evident that historical soil impacts were widespread across a majority of the tank battery location. During initial remediation activities approximately 40 cubic yards (cy) of impacted soil was excavated and temporarily stockpiled on-site pending final disposition to an NMOCD-approved surface waste facility.

On August 16, 2022, an alternative environmental contractor collected 11 soil samples (ESW -1 @ 1', ESW -1 @ 2', NSW -1 @ 1', NSW-1 @ 1.5', WSW -1 @ 6". WSW-1 @ 1', SSW-1 @ 6", SSW-1 @ 1.5', BH-1 @ 2.5', BH-2 @ 2' and BH-3 @ 3') from the floor and sidewalls of the on-

site excavated area in an effort to characterize and quantify current benzene, toluene, ethylbenzene, xylenes (BTEX), total petroleum hydrocarbons (TPH) and chloride concentrations and determine if additional inferences could be made. Laboratory analytical results indicated benzene concentrations ranged from less than the applicable laboratory method detection limit (MDL) in soil samples NSW-1 @ 1', SSW-1 @ 6", BH-1 @ 2.5' and BH-3 @ 3' to 2.98 milligrams per kilograms (mg/kg) in soil sample BH-3 @ 3'; benzene concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. BTEX concentrations ranged from 0.00386 mg/kg in soil sample BH-2 @ 2' to 121 mg/kg in soil sample ESW-1 @ 1'; BTEX concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples, with the exception of soil samples ESW-1 @ 1' (121 mg/kg), WSW-1 @ 6" (96.5 mg/kg) and BH-3 @ 3' (202 mg/kg). TPH concentrations ranged from 2,490 mg/kg in soil sample BH-2 @ 2' to 42,000 mg/kg in soil sample WSW-1 @ 6in.; TPH concentrations exceeded the NMOCD Closure Criteria in each of the submitted soil samples. Chloride concentrations ranged 196 mg/kg in soil sample BH-2 @ 2' to 7,100 mg/kg in soil sample NSW-1 @ 1'; chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. A "Site and Sample Location Map" is provided as Attachment #3. A "Soil Chemistry Table" is provided as Attachment #4. Laboratory analytical reports are provided as Attachment #8.

In addition, a hand-auger was utilized to collect five (5) soil samples (AH-1 @ 2', AH-1 @ 3', AH-1 @ 4', AH-1 @ 5' and AH-1 @ 6') from the affected area proximate to the release point. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated benzene concentrations ranged from 0.00341 mg/kg in soil sample AH-1 @ 2' to 1.42 mg/kg in soil sample AH-1 @ 5'; benzene concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. BTEX concentrations ranged from 0.0813 mg/kg in soil sample AH-1 @ 2' to 19.9 mg/kg in soil sample AH-1 @ 5'; BTEX concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. TPH concentrations ranged from 71.5 mg/kg in soil sample AH-1 @ 6' to 1,820 mg/kg in soil sample AH-1 @ 5'; TPH concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples, with the exception of AH-1 @ 5'. Chloride concentrations ranged from 216 mg/kg in soil sample AH-1 @ 2' to 1,390 mg/kg in soil sample AH-1 @ 5'; chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

Review of laboratory analytical data, and the presence of chloride impacts across portions of the site, suggests the subject release may have commingled with historical impacts not associated with the Plains 4-inch crude oil transport pipeline. Site photographs are provided as Attachment #6.

## **SITE INVESTIGATION ACTIVITIES**

On January 26, 2023, Etech assumed environmental oversight responsibilities for the remediation of the subject release. A hand-auger was utilized to collect eight (8) soil samples (EH @ Surface, EH @ 1.5', NH @ Surface, NH @ 1.5', SH @ Surface, SH @ 1.5', WH @ Surface and WH @ 1.5') in an effort to horizontally delineate the impacted area at the site. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated benzene and BTEX concentrations were below the applicable laboratory MDL in each of the submitted soil samples. TPH concentrations ranged from below the applicable laboratory MDL in soil samples EH @ Surface, EH @ 1.5', NH @ Surface, SH @ 1.5', WH @ Surface and WH @ 1.5' to 289 mg/kg in soil sample SH @ Surface; TPH concentrations were

below the NMOCD Reclamation Standard in each of the submitted soil samples, with the exception of soil sample SH @ Surface. Chloride concentrations ranged from 13.3 mg/kg in soil sample NH @ Surface to 1,040 mg/kg in soil sample WH @ 1.5'; chloride concentrations were below the NMOCD Reclamation Standard in each of the submitted soil samples, with the exception of soil sample WH @ 1.5'.

On February 15, 2023, Etech revisited the release site in an effort to further delineate the areas characterized by soil samples SH @ Surface and WH @ 1.5'. A hand-auger was utilized to collect five (5) additional soil samples (SHB @ Surface, SHB @ 1.5', WH @ 2', WHB @ Surface and WHB @ 1.5') from inside and outside the tank battery containment. The collected soil samples were submitted to the laboratory for analysis of TPH and/or chloride. Laboratory analytical results indicated TPH concentrations ranged from below the applicable laboratory MDL in soil sample SHB @ 1.5' to 62.3 mg/kg in soil sample SHB @ Surface. Chloride concentrations ranged from less than the applicable laboratory MDL in soil samples WHB @ Surface and WHB @ 1.5' to 153 mg/kg in soil sample WH @ 2'.

On May 8, 2023, Etech oversaw the installation of an investigative soil boring/temporary monitoring well at the site. The investigative soil boring/temporary monitoring well was installed to a total depth of approximately 55 feet (ft.) below grade surface (bgs) and the bore hole was left open for 72 hours. Following the 72 hour waiting period it was determined to have been dry, which effectively demonstrated shallow groundwater was not present at the site. An NMOCD Siting Information Packet is provided as Attachment #5.

On May 26, 2023, Etech revisited the release site in an effort to characterize background soil impacts within the tank battery facility. During the site visit, a hand-auger was utilized to collect four (4) soil samples (BG1 @ 6", BG2 @ 6", BG3 @ 6" and BG4 @ 6") from representative areas not impacted by the subject release. Soil sample BG1 @ 6" was collected approximately 12 ft. north of the subject release. Soil sample BG2 @ 6" was collected approximately 30 ft. west of the subject release. Soil sample BG3 @ 6" was collected approximately 5 ft. south of the subject release. Soil sample BG4 was collected approximately 50 ft. east of the subject release. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated benzene concentrations ranged from below the applicable laboratory MDL in soil samples BG2 @ 6" and BG3 @ 6" to 0.0166 mg/kg in soil sample BG4 @ 6"; benzene concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. BTEX concentrations ranged from 1.40 mg/kg in soil sample BG4 @ 6" to 14.6 mg/kg in soil sample BG2 @ 6"; BTEX concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. TPH concentrations ranged from 26,000 mg/kg in soil sample BG4 @ 6" to 35,000 mg/kg in soil sample BG1 @ 6"; TPH concentrations exceeded the NMOCD Closure Criteria in each of the submitted soil samples. Chloride concentrations ranged from 572 mg/kg in soil sample BG2 @ 6" to 3,010 mg/kg in soil sample BG4 @ 6"; chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

On June 1, 2023, Etech revisited the release site in an effort to further characterize the vertical extent of impacts in the vicinity of the subject release. During the site visit, a hand-auger was utilized to collect two (2) soil samples (V1 @ 6' and V1 @ 7') from the central portion of the affected area. The collected soil samples were submitted to the laboratory for analysis of BTEX,

TPH and chloride. Laboratory analytical results indicated benzene and BTEX concentrations were below the applicable laboratory MDL in each of the submitted soil samples. TPH concentrations ranged from 1,120 mg/kg in soil sample V1 @ 6' to 1,660 mg/kg in soil sample V1 @ 7'; TPH concentrations exceeded the NMOCD Closure Criteria in each of the submitted soil samples. Chloride concentrations ranged from 14.2 mg/kg in soil sample V1 @ 7' to 32.3 mg/kg in soil sample V1 @ 6'; chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

During the course of site investigation activities, the environmental excavation associated with the subject release was backfilled with loose sand. Whether the excavation was backfilled from windblown sand or by an unaffiliated third party remains unclear; Plains did not backfill the excavated area.

## CONCLUSIONS

Based on laboratory analytical results from the collected soil samples, field observations and remediation activities conducted to date, it can be determined that BTEX, TPH and chloride impacts present in the floor and sidewalls of the former environmental excavation are indistinguishable from preexisting, historical impacts not related to the subject pipeline. Review of publicly available environmental records suggest one or more historical releases have occurred at the facility. Additionally, an NMOCD inspection report suggests historical impacts were documented at and around the facility as recently as October 4, 2016. As of current, there are no follow-up documents shown regarding any remediation efforts associated with the historical impact addressed in the inspection report. A copy of the NMOCD Inspection Report is provided as Attachment #7.

Based on the review of initial release photographs and the size of the former environmental excavation, it was determined that the surface area impacted by the subject release was approximately 250 square feet (sq. ft.) instead of to the approximate 715 sq. ft. utilized by Plains in the initial release volume calculation spreadsheet. Utilizing the corrected surface area in the same release volume calculation spreadsheet results in a corrected volume of 2.7 bbls of crude oil in soil, as opposed to the reported 7.6 bbls, which is concurrent with field observations.

## PROPOSED ACTIVITIES

Based on field observations, laboratory analytical results, the presence of historical soil impacts and incorrect reporting of the initial release volume, Plains respectfully request permission from the NMOCD and BLM to pursue one or more of the following activities in an effort to bring the Site into compliance:

- Prepare a *Remediation Summary and Soil Closure Request* detailing remediation activities conducted to date and laboratory analytical results from excavation confirmation soil samples.
- Prepare a *Remediation Summary and Deferral Request* detailing remediation activities conducted to date, laboratory analytical results from excavation confirmation soil samples and proposing remediation and/or further investigation upon decommissioning the facility.
- Advance the floor and sidewalls of the former excavation an additional 1 to 2 ft. from the current boundaries and prepare a *Remediation Summary and Soil Closure Request* detailing remediation activities conducted to date and laboratory analytical results from excavation confirmation soil samples.



- Correct and resubmit the spill volume calculation accurately documenting the release as being approximately 2.7 bbls of crude oil as opposed to the reported volume of 7.6 bbls.

If you have any questions or need any additional information, please feel free to contact myself or Karolanne Hudgens by phone or email.

Respectfully,

A handwritten signature in blue ink that reads "Joel Lowry". The signature is cursive and fluid.

Joel Lowry  
Project Manager  
Etech Environmental & Safety Solutions

Attached:      Attachment #1 –NMOCD Form C-141 and Volume Calculation Sheet  
Attachment #2 –Site Location Map  
Attachment #3 – Site and Sample Location Map  
Attachment #4 – Soil Chemistry Table  
Attachment #5 – NMOCD Siting Information Packet  
Attachment #6 – Site Photographs  
Attachment #7 – NMOCD Inspection Report  
Attachment #8 – Laboratory Analytical Reports  
Attachment #9 – Volume Calculation Spread Sheets

Cc:      Karolanne Hudgens, Plains All American Pipeline, LP  
Camille Bryant, Plains All American Pipeline, LP

**Attachment #1 –NMOCD Form C-141 and Volume Calculation Sheet**

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	NAPP2221061094
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	OGRID 34053
Contact Name Karolanne Hudgens	Contact Telephone 575.200.3517
Contact email khudgens@paalp.com	Incident # (assigned by OCD) NAPP2221061094
Contact mailing address 1106 Griffith Drive, Midland, Texas 79706	

### Location of Release Source

Latitude 32.85094 Longitude -103.35942  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Plains West B4 Release	Site Type pipeline
Date Release Discovered 07/27/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
F	10	17 S	31 E	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)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 7.6	Volume Recovered (bbls) 0
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Internal corrosion.

Received by OCD: 8/4/2022 6:57:16 AM

Page 2

State of New Mexico  
Oil Conservation Division

Incident ID	nAPP2221061094
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: Karolanne Hudgens

Title: HSE Remediation Specialist II

Signature: [Signature]

Date: 08/04/2022

email: khudgens@paalp.com

Telephone: 575.200.5517

**OCD Only**

Received by: Jocelyn Harimon

Date: 08/04/2022

Released to Imaging: 8/4/2022 8:28:32 AM

Released to Imaging: 3/18/2024 1:13:00 PM

**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 131357

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID: 34053
	Action Number: 131357
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141	8/4/2022



**Location:** Plains West B4 (Original)

Average Pore Space Between Soil Grains Ranges From A Low of 15% To A High of 26%. Pure Sand Being 26%.

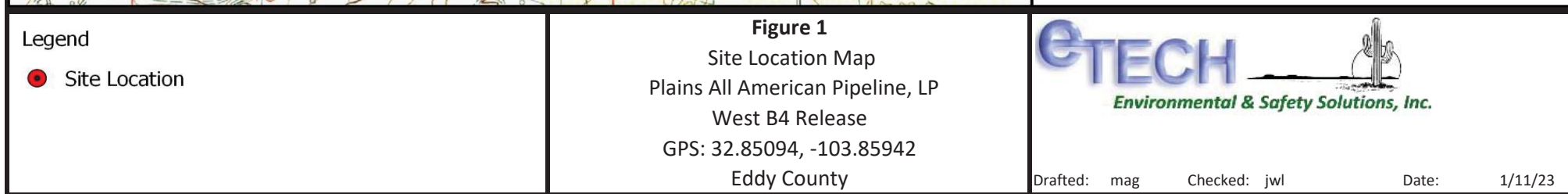
0.0 = Barrels of Oil In Soil

4.8 = Barrels of Oil In Soil

2.8 = Barrels of Oil In Soil

**Attachment #2 –Site Location Map**





**Attachment #3 – Site and Sample Location Map**





**Legend:**

<span style="color: red;">●</span>	Sample Point
<span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	Affected Area
<span style="color: red;">—</span>	Buried Pipeline
<span style="border: 1px dashed black; display: inline-block; width: 15px; height: 10px;"></span>	Excavated Area

**Figure 3**  
 Site and Sample Location Map  
 Plains All American Pipeline, LP  
 West B4 Release  
 GPS: 32.85094, -103.85942  
 Eddy County



**eTECH**  
 Environmental & Safety Solutions, Inc.



Drafted:

Checked: jwl

Date: 8/2/23



**Attachment #4 – Soil Chemistry Table**

**Table 1**  
**Concentrations of BTEX, TPH, and Chloride in Soil**  
**Plains All American Pipeline, LP**  
**West B4 Release**  
**NMOCD Ref. #: nAPP2221061094**

NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
AH-1 @ 2FT	8/16/2022	2	In-Situ	0.00341	0.0813	<29.1	631	631	108	739	216
AH-1 @ 3FT	8/16/2022	3	In-Situ	0.00615	0.519	40.3	78.7	119	40.6	160	614
AH-1 @ 4FT	8/16/2022	4	In-Situ	0.0681	1.59	84.7	201	286	106	392	757
AH-1 @ 5FT	8/16/2022	5	In-Situ	1.42	19.9	263	1,130	1,390	425	1,820	1,390
AH-1 @ 6FT	8/16/2022	6	In-Situ	0.0345	0.658	32.8	38.7	71.5	<25.5	71.5	534
BH - 1 @ 2.5FT	8/16/2022	2.5	In-Situ	<0.00108	0.144	544	7,140	7,680	2,100	9,780	587
BH - 2 @ 2FT	8/16/2022	2	In-Situ	<0.00103	0.00386	<515	1,770	1,770	713	2,490	196
BH - 3 @ 3FT	8/16/2022	3	In-Situ	2.98	202	6,230	15,000	21,200	3,160	24,400	545
ESW - 1 @ 1FT	8/16/2022	1	In-Situ	1.13	121	5,890	24,800	30,700	4,610	35,300	378
ESW - 1 @ 2FT	8/16/2022	2	In-Situ	0.0747	25.8	2,310	15,300	17,600	2,730	20,300	266
NSW - 1 @ 1FT	8/16/2022	1	In-Situ	<0.00102	0.467	1,030	23,600	24,600	4,090	28,700	7,100
NSW - 1 @ 1.5FT	8/16/2022	1.5	In-Situ	0.00160	1.25	1,810	18,400	20,200	3,150	23,400	624
SSW - 1 @ 6in	8/16/2022	0.5	In-Situ	<0.0206	3.94	699	19,500	20,200	4,300	24,500	646
SSW - 1 @ 1.5FT	8/16/2022	1.5	In-Situ	0.0145	22.7	2,000	29,600	31,600	5,360	36,900	211
WSW - 1 @ 6in.	8/16/2022	0.5	In-Situ	0.0845	96.5	5,590	31,300	36,900	5,040	42,000	1,340
WSW - 1 @ 1FT	8/16/2022	1	In-Situ	0.0554	37.6	5,720	29,200	34,900	4,810	39,700	2,660
EH @ Surface	1/26/2023	0	In-Situ	<0.00106	<0.00637	<26.6	<26.6	<53.2	<26.6	<79.8	26.7
EH @ 1.5'	1/26/2023	1.5	In-Situ	<0.00111	<0.00666	<27.8	<27.8	<55.6	<27.8	<83.4	100
NH @ Surface	1/26/2023	0	In-Situ	<0.00114	<0.00683	<28.4	<28.4	<56.8	<28.4	<85.2	13.3
NH @ 1.5'	1/26/2023	1.5	In-Situ	<0.00110	<0.0066	<27.5	49.1	49.1	36.8	85.9	28.6
SH @ Surface	1/26/2023	0	In-Situ	<0.00112	<0.00673	<28.1	196	196	92.5	289	470
SH @ 1.5'	1/26/2023	1.5	In-Situ	<0.00109	<0.00653	<27.2	<27.2	<54.4	<27.2	<81.6	342
WH @ Surface	1/26/2023	0	In-Situ	<0.00112	<0.00673	<28.1	<28.1	<56.2	<28.1	<84.3	282
WH @ 1.5'	1/26/2023	1.5	In-Situ	<0.00112	<0.00673	<28.1	<28.1	<56.2	<28.1	<84.3	1,040
SHB @ Surface	2/15/2023	0	In-Situ	-	-	<26.9	34.6	34.6	27.7	62.3	-
SHB @ 1.5'	2/15/2023	1.5	In-Situ	-	-	<27.2	<27.2	<27.2	<27.2	<27.2	-
WH @ 2'	2/15/2023	2	In-Situ	-	-	-	-	-	-	-	153
WHB @ Surface	2/15/2023	Surf.	In-Situ	-	-	-	-	-	-	-	<1.05
WHB @ 1.5'	2/15/2023	1.5	In-Situ	-	-	-	-	-	-	-	<1.06
BG1 @ 6"	5/26/2023	0.5	In-Situ	0.00159	11.7	2,820	32,200	35,000	5,340	40,400	824
BG2 @ 6"	5/26/2023	0.5	In-Situ	ND	14.6	2,940	30,900	33,800	5,080	38,900	572
BG3 @ 6"	5/26/2023	0.5	In-Situ	ND	11.4	2,730	29,800	32,500	5,000	37,500	813
BG4 @ 6"	5/26/2023	0.5	In-Situ	0.0166	1.40	2,650	23,300	26,000	4,120	30,070	3,010
V1 @ 6'	6/1/2023	6	In-Situ	ND	ND	33.4	1,090	1,120	474	1,600	32.3
V1 @ 7'	6/1/2023	7	In-Situ	ND	ND	ND	1,660	1,660	676	2,340	14.2

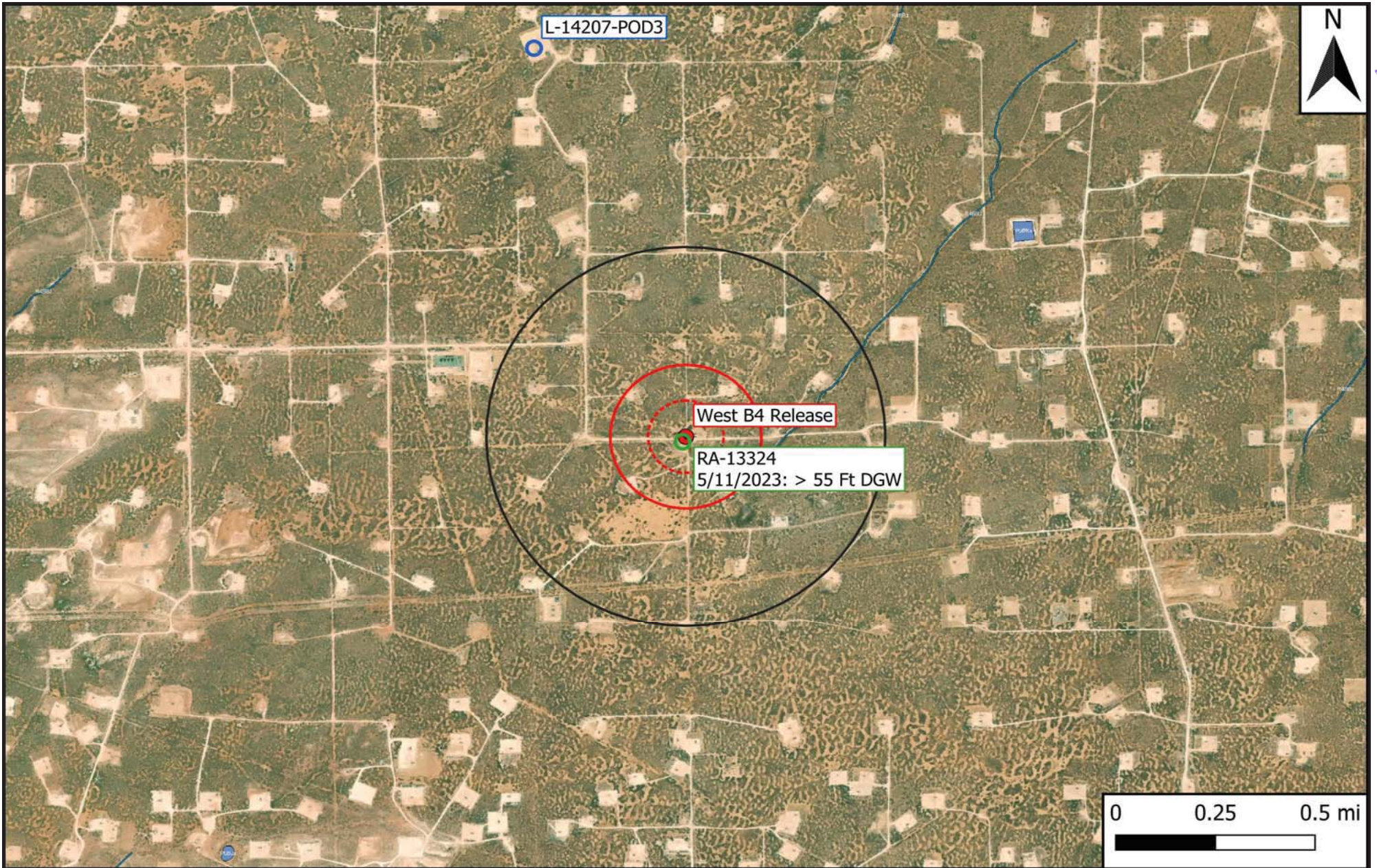
Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

**Attachment #5 – NMOCD Siting Information Packet**





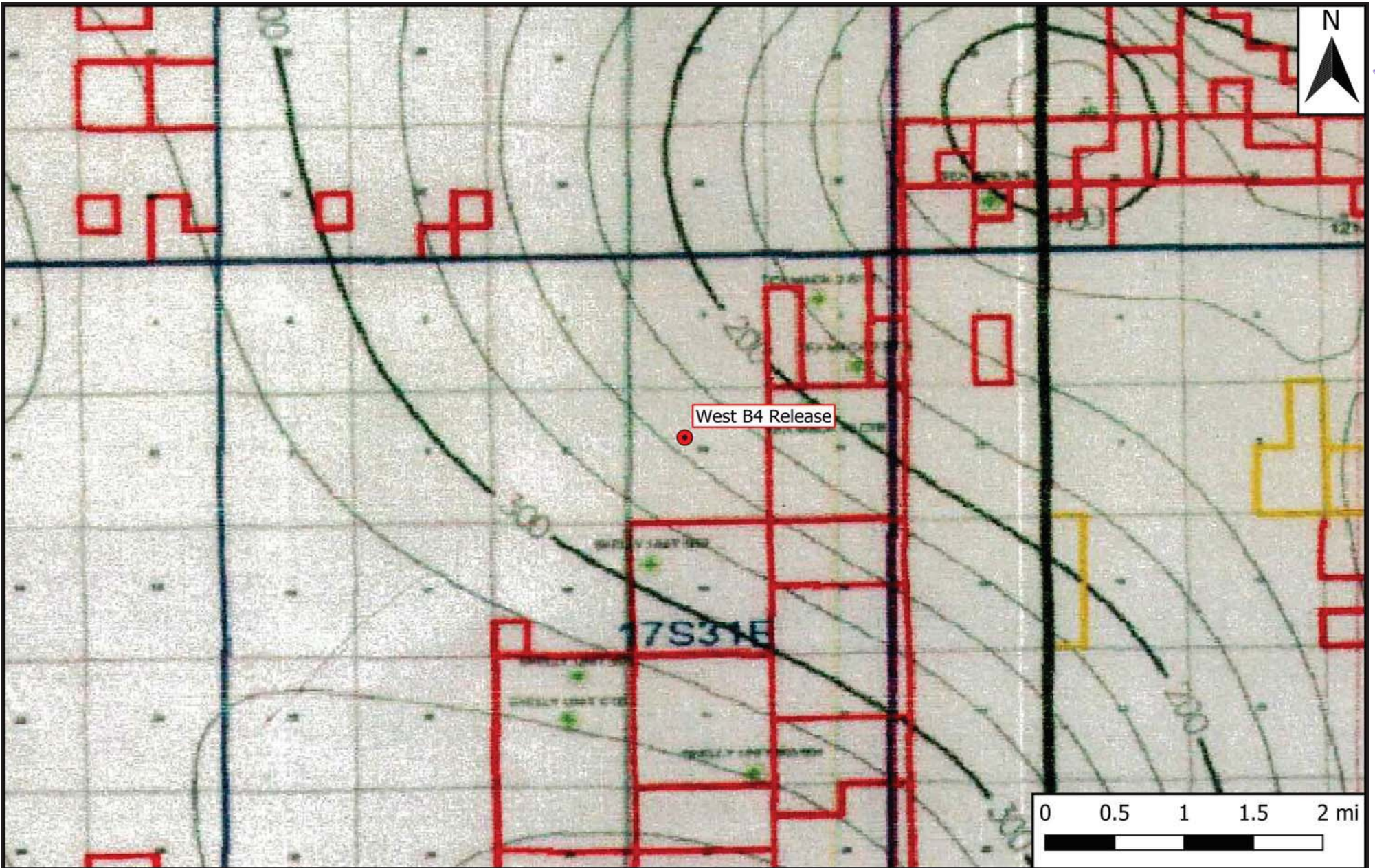
- |                        |                              |
|------------------------|------------------------------|
| ● Site Location        | ⋯ 500 Ft Radius              |
| ○ Well - USGS          | ⬜ 1000 Ft Radius             |
| ○ Well - NMOSE         | ⬜ 0.5 Mi Radius              |
| ○ Well - Other         | ■ 1% Annual Flood Chance     |
| — Potash Mine Workings | ■ Lake/Freshwater Pond       |
| ■ Medium/High Karst    | ■ Emergent/Forested Wetlands |
|                        | ■ Riverine                   |

**Figure 2**  
 Aerial Proximity Map  
 Plains All American Pipeline, LP  
 West B4 Release  
 GPS: 32.85094, -103.85942  
 Eddy County



Drafted: mag      Checked: jwl      Date: 8/2/23





Legend

- Site Location

Figure 4

Inferred Depth to Groundwater Trend Map  
 Plains All American Pipeline, LP  
 West B4 Release  
 GPS: 32.85094, -103.85942  
 Eddy County



Drafted: mag

Checked: jwl

Date:

8/2/23





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">L 14207 POD3</a>		L	LE	2	3	3	31	16S	37E	606117	3636977	1749	240	96	144
<a href="#">RA 13235 POD1</a>		RA	ED	1	1	1	21	17S	31E	604631	3632537	3500	102		

Average Depth to Water: **96 feet**

Minimum Depth: **96 feet**

Maximum Depth: **96 feet**

**Record Count:** 2

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 606729.96

**Northing (Y):** 3635338.65

**Radius:** 4830

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


1/11/23 7:31 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)			
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
L	14207 POD3	2	3	3	31	16S	37E	606117	3636977 
<hr/>									
Driller License: 1456		Driller Company:		WHITE DRILLING COMPANY					
Driller Name:		WHITE, JOHN W							
Drill Start Date: 10/03/2016		Drill Finish Date:		10/12/2016		Plug Date:			
Log File Date: 12/12/2016		PCW Rev Date:				Source:		Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size: 4.00		Depth Well:		240 feet		Depth Water:		96 feet	
<hr/>									
Water Bearing Stratifications:					Top	Bottom	Description		
					75	140	Sandstone/Gravel/Conglomerate		
					140	200	Sandstone/Gravel/Conglomerate		
					200	205	Sandstone/Gravel/Conglomerate		
					205	218	Sandstone/Gravel/Conglomerate		
					218	236	Sandstone/Gravel/Conglomerate		
					236	237	Sandstone/Gravel/Conglomerate		
					237	240	Sandstone/Gravel/Conglomerate		
<hr/>									
Casing Perforations:					Top	Bottom			
					90	220			
<hr/>									

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POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	RA 13235 POD1	1	1	1	21	17S	31E	604631	3632537 

**Driller License:** 1249 **Driller Company:** ATKINS ENGINEERING ASSOC. INC.

**Driller Name:** JACKIE D ATKINS

**Drill Start Date:** 10/08/2022 **Drill Finish Date:** 10/09/2022 **Plug Date:**

**Log File Date:** 11/04/2022 **PCW Rcv Date:** **Source:**

**Pump Type:** **Pipe Discharge Size:** **Estimated Yield:**

**Casing Size:** **Depth Well:** 102 feet **Depth Water:**

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

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POINT OF DIVERSION SUMMARY



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD-1		WELL TAG ID NO. n/a		OSE FILE NO(S). RA-13235			
	WELL OWNER NAME(S) Spur Energy Partners LLC				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 919 Milam St Ste 2475				CITY Houston	STATE TX	ZIP 77002	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 49	SECONDS 33.16	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LATITUDE	103	52	55.80	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Nw NW NW Sec. 21 T17S R31E, NMPM								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 10/8/2022		DRILLING ENDED 10/9/2022		DEPTH OF COMPLETED WELL (FT) 102	BORE HOLE DEPTH (FT) ±102	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a	DATE STATIC MEASURED 10/31/2022	
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES – SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER – SPECIFY: Hollow Stem Auger						CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>	
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	102	±6.5	Soil Boring	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. RA-13235	POD NO. 1	TRN NO. 733608
LOCATION 21.175. 31E 111	WELL TAG ID NO. NA	PAGE 1 OF 2


	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES <b>(attach supplemental sheets to fully describe all units)</b>	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)	
	FROM	TO					
<b>4. HYDROGEOLOGIC LOG OF WELL</b>	0	4	4	Sand, Fine-grained with caliche, Tanish white	Y    ✓ N		
	4	14	10	Sand, Fine-grained, poorly graded, unconsolidated, Tann	Y    ✓ N		
	17	70	53	Sand, Fine-grained, poorly graded, unconsolidated, Reddish Brown	Y    ✓ N		
	70	102	32	Clay, consolidated, Reddish Brown	Y    ✓ N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm):	0.00
	<b>5. TEST; RIG SUPERVISION</b>	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
MISCELLANEOUS INFORMATION: Removed well material, back filled from total depth to 10 feet below ground surface. Then plugged using hydrated benonite hole plug from 10 below ground surface to surface.  QSE DTI NOV 4 2022 PM4:01							
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Cameron Pruitt							
<b>6. SIGNATURE</b>	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:  Jack Atkins Jackie D. Atkins 11/1/2022 SIGNATURE OF DRILLER / PRINT SIGNEE NAME DATE						





# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)					(NAD83 UTM in meters)		
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
	LWD 03233 POD1	1	4	16	17S	31E	605524	3633307*	

Driller License:

Driller Company:

Driller Name:

Drill Start Date:

Drill Finish Date:

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

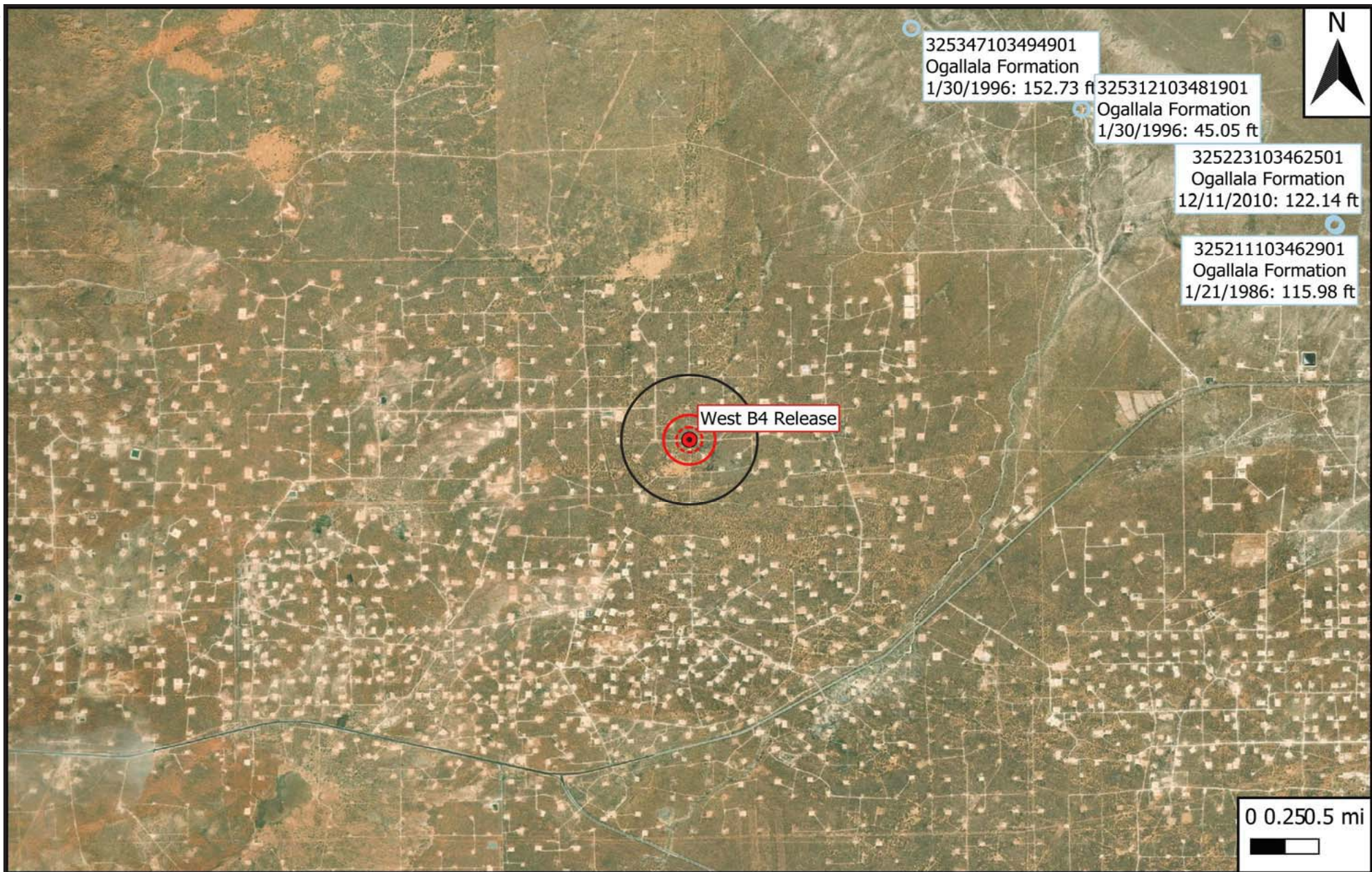
Depth Water:

\*UTM location was derived from PLSS - see Help

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1/11/23 7:43 AM

POINT OF DIVERSION SUMMARY



## Legend

- Site Location
- Well - USGS
- ⋯ 500 Ft Radius
- ▭ 1000 Ft Radius
- 0.5 Mi Radius

**Figure 5**  
USGS Well Proximity Map  
Plains All American Pipeline, LP  
West B4 Release  
GPS: 32.85094, -103.85942  
Eddy County



Drafted: mag

Checked: jwl

Date:

8/2/23





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## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

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Groundwater levels for the Nation



Important: [Next Generation Monitoring Location Page](#)

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 325211103462901

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

### USGS 325211103462901 16S.32E.33.332112

Available data for this site

Groundwater: Field measurements



GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°52'27", Longitude 103°46'38" NAD27

Land-surface elevation 4,195.00 feet above NGVD29

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

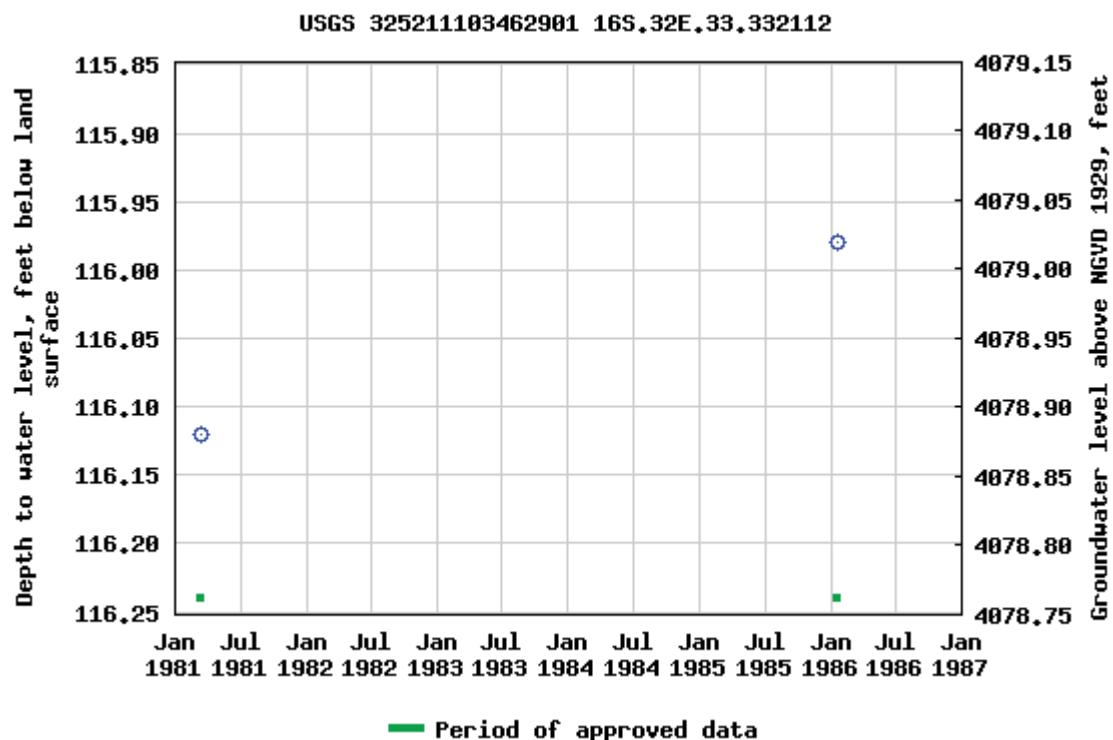
#### Output formats

[Table of data](#)

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Breaks in the plot represent a gap of at least one year between field measurements.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

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Page Last Modified: 2023-01-11 09:27:05 EST

0.6 0.51 nadww01





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Geographic Area:

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### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 325223103462501

Minimum number of levels = 1

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### USGS 325223103462501 16S.32E.33.33212

Available data for this site

Groundwater: Field measurements



GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°52'26", Longitude 103°46'37" NAD27

Land-surface elevation 4,196.00 feet above NGVD29

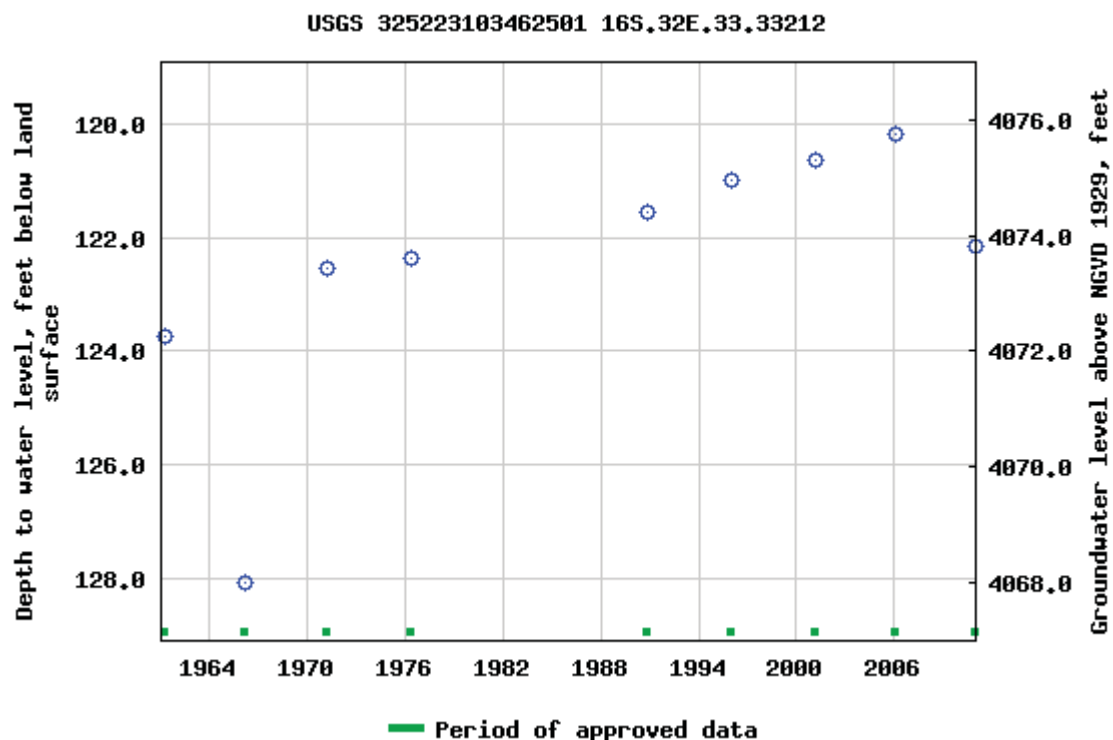
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>





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**Title: Groundwater for USA: Water Levels**

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0.58 0.49 nadww01





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## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

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### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 325312103481901

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

### USGS 325312103481901 16S.32E.30.34143

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°53'14", Longitude 103°48'32" NAD27

Land-surface elevation 4,138.00 feet above NGVD29

The depth of the well is 101 feet below land surface.

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

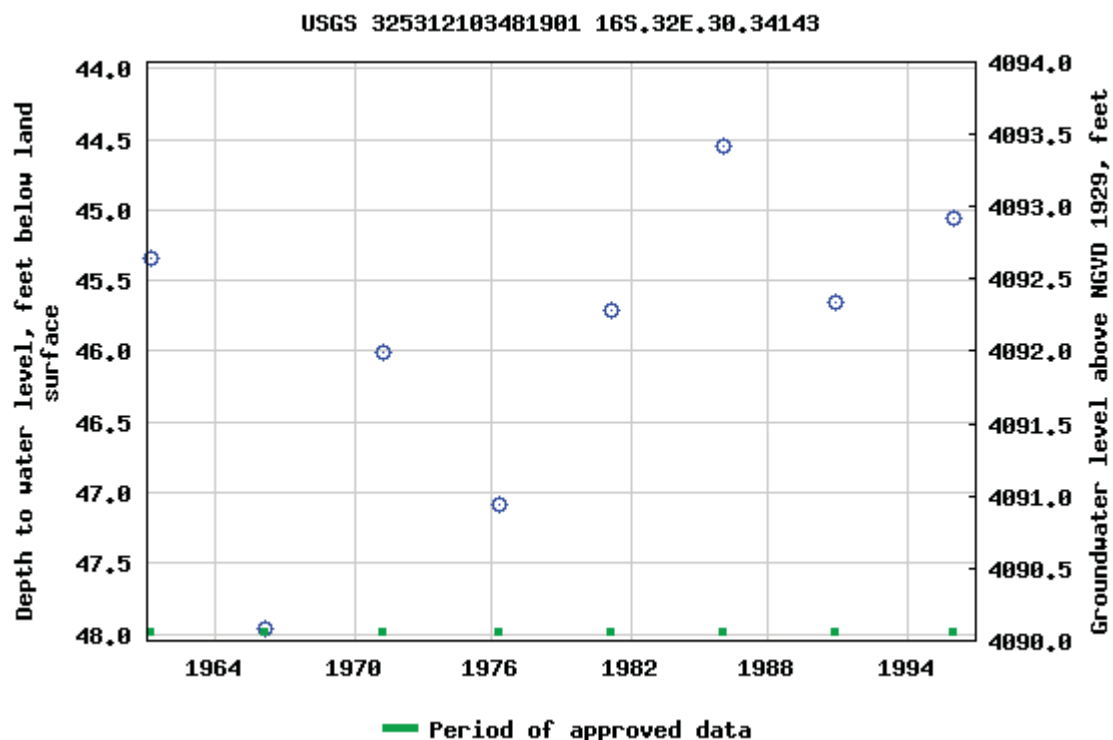
#### Output formats

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0.59 0.49 nadww01







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Groundwater



Geographic Area:

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Agency code = usgs

site\_no list =

- 325347103494901

Minimum number of levels = 1

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### USGS 325347103494901 16S.31E.23.444321

Available data for this site

Groundwater: Field measurements



GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°53'47", Longitude 103°49'49" NAD27

Land-surface elevation 4,240 feet above NAVD88

The depth of the well is 167 feet below land surface.

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

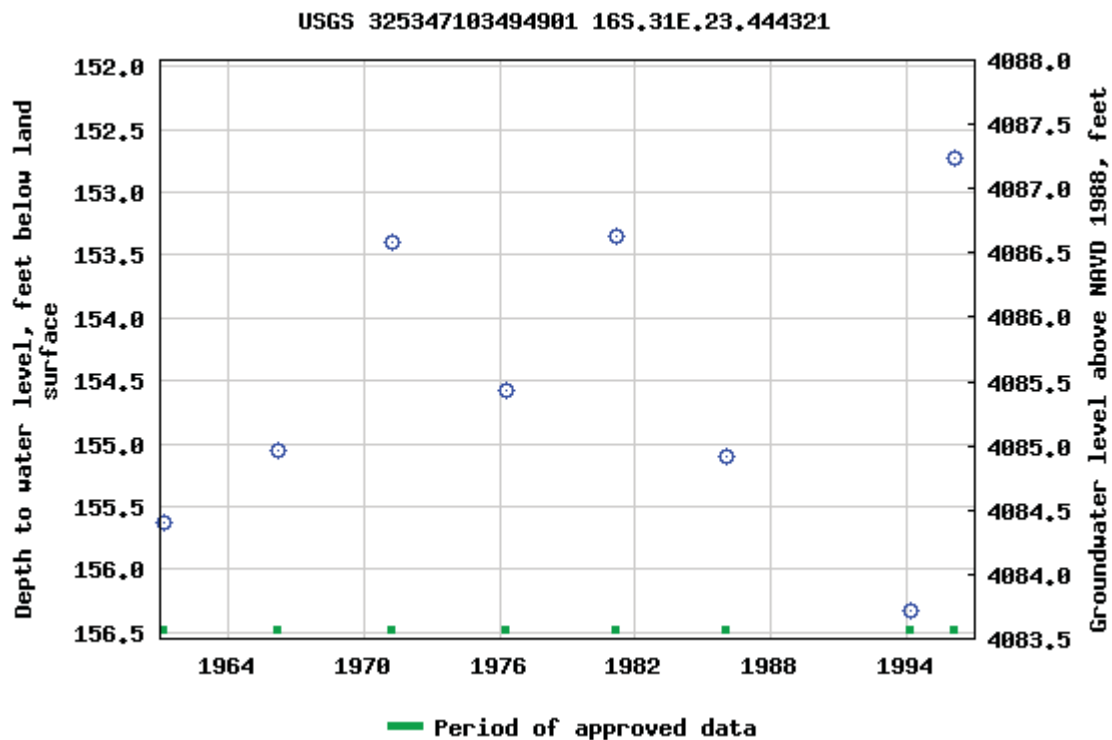
#### Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

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0.54 0.49 nadww01

<b>Logger:</b>	Zach Conder				
<b>Driller:</b>	White Drilling				
<b>Consultant:</b>	Etech Environmental				
<b>Drilling Method:</b>	Air Rotary				
<b>Start Date:</b>	May 8, 2023				
<b>End Date:</b>	May 8, 2023				
<b>Comments:</b>	Drilled temp well per NMOCD Guidance to check for shallow groundwater, dry after 72 hrs Drafted by: Joel Lowry				<b>Project Name:</b> Plains West B4 <b>Well ID:</b> RA-13324 <b>Location:</b> <b>Lat:</b> 32.85075 <b>Long:</b> -103.85956 <b>County:</b> Eddy <b>State:</b> NM

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction	
	-	-	-	Imported Fill/Caliche		<div style="writing-mode: vertical-rl; transform: rotate(180deg);">Open Hole</div>	Water Strike
5	-	-	-	Reddish Tan Sand			
	-	-	-	Reddish Tan Sand			
10	-	-	-	Reddish Tan Sand			
	-	-	-	Reddish Tan Sand			
15	-	-	-	Brown Silty Sand			
	-	-	-	Brown Silty Sand			
20	-	-	-	Brown Silty Sand			
	-	-	-	Brown Silty Sand			
25	-	-	-	Brown Silty Sand			
	-	-	-	Brown Silty Sand			
30	-	-	-	Brown Silty Sand			
	-	-	-	Brown Silty Sand			
35	-	-	-	Brown Silty Sand			
	-	-	-	Brown Silty Sand			
40	-	-	-	Brown Silty Sand			
	-	-	-	Brown Silty Sand			
45	-	-	-	Brown Silty Sand w. Clay			
	-	-	-	Brown Silty Sand w. Clay			
50	-	-	-	Brown Silty Sand w. Clay			
	-	-	-	Brown Silty Sand w. Clay			
55	-	-	-	TD 55 Ft.			



## **Attachment #6 – Site Photographs**



Figure 1 – View of Initial Release, facing west.





Figure 2 – View of surface staining from initial release, facing east.





Figure 3 – View of surface staining from initial release, facing northwest.





Figure 4 – View of surface staining from the initial release and initial response activities, facing west.





Figure 5 – View of surface staining from the initial release and initial response activities, facing northwest.

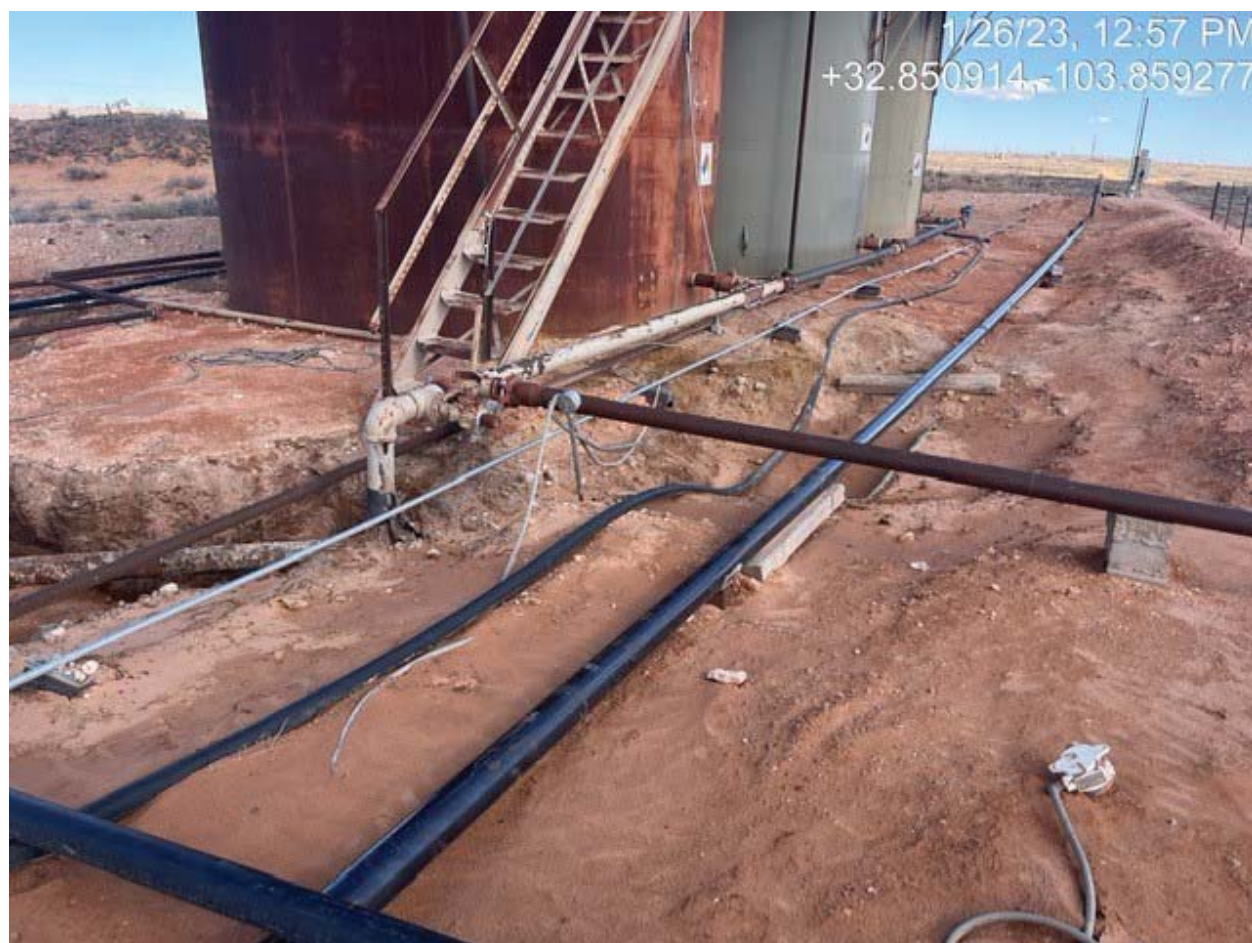


Figure 6 – View of portion of the excavated area, facing northeast.





Figure 7 – View of portion of the excavated area, facing southwest.



Figure 8 – View of portion of the excavated area, facing north.





Figure 9 – View of historical soil impacts.





Figure 10 – View of historical soil impacts.





Figure 11 – View of historical soil impacts.



Figure 12 – View of historical soil impacts and delineation activities.





Figure 13 – View of former excavated area, facing northwest.





Figure 14 – View of former excavated area, facing east.

**Attachment #7 – NMOCD Inspection Report**

10/4/2016

NMOCD District II Staff

Site Inspection

Photo Documentation

Linn Energy

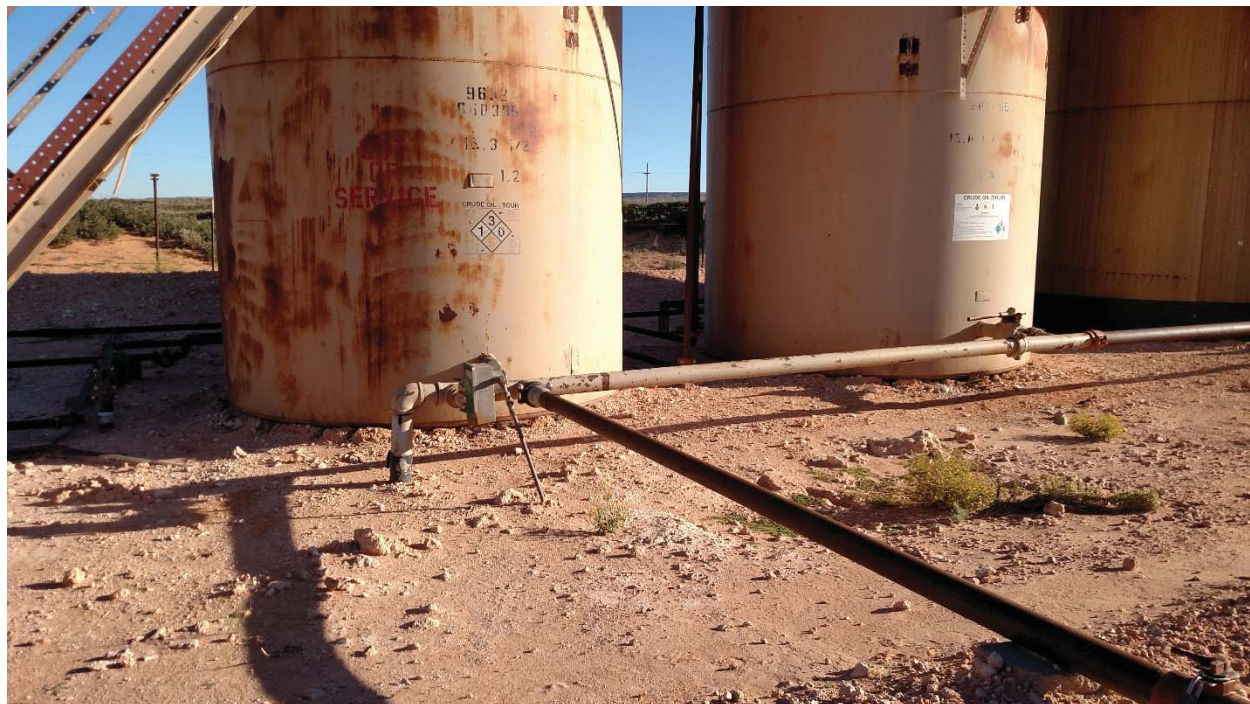
HE West B #4 Battery

(HE West B 38)

30-015-26001

2RP-1060













































## **Attachment #8 – Laboratory Analytical Reports**



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



# Analytical Report

**Prepared for:**

Elizabeth Stuart  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: PP-22234- West B4 Release

Project Number: PP-22234

Location: Eddy County, NM

Lab Order Number: 2H17011



**Current Certification**

Report Date: 08/25/22

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH - 1 @ 2FT	2H17011-01	Soil	08/16/22 11:00	08-17-2022 12:53
AH - 1 @ 3FT	2H17011-02	Soil	08/16/22 11:05	08-17-2022 12:53
AH - 1 @ 4FT	2H17011-03	Soil	08/16/22 11:10	08-17-2022 12:53
AH - 1 @ 5FT	2H17011-04	Soil	08/16/22 11:15	08-17-2022 12:53
AH - 1 @ 6FT	2H17011-05	Soil	08/16/22 11:20	08-17-2022 12:53



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**AH - 1 @ 2FT**  
**2H17011-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00341</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:42	EPA 8021B	
<b>Toluene</b>	<b>0.0198</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:42	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0104</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:42	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0290</b>	0.00233	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:42	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0187</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:42	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	119 %	80-120			P2H1811	08/18/22 16:11	08/19/22 00:42	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	86.0 %	80-120			P2H1811	08/18/22 16:11	08/19/22 00:42	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>216</b>	1.16	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 14:50	EPA 300.0	
<b>% Moisture</b>	<b>14.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	29.1	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 19:10	TPH 8015M	
<b>&gt;C12-C28</b>	<b>631</b>	29.1	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 19:10	TPH 8015M	
<b>&gt;C28-C35</b>	<b>108</b>	29.1	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 19:10	TPH 8015M	
Surrogate: 1-Chlorooctane	84.0 %	70-130			P2H1809	08/18/22 16:04	08/22/22 19:10	TPH 8015M	
Surrogate: o-Terphenyl	107 %	70-130			P2H1809	08/18/22 16:04	08/22/22 19:10	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>739</b>	29.1	mg/kg dry	1	[CALC]	08/18/22 16:04	08/22/22 19:10	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**AH - 1 @ 3FT**  
**2H17011-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00615</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:03	EPA 8021B	
<b>Toluene</b>	<b>0.0488</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:03	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0895</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:03	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.267</b>	0.00233	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:03	EPA 8021B	
<b>Xylene (o)</b>	<b>0.108</b>	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:03	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>119 %</i>		<i>80-120</i>		<i>P2H1811</i>	<i>08/18/22 16:11</i>	<i>08/19/22 01:03</i>	<i>EPA 8021B</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>93.3 %</i>		<i>80-120</i>		<i>P2H1811</i>	<i>08/18/22 16:11</i>	<i>08/19/22 01:03</i>	<i>EPA 8021B</i>	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>614</b>	1.16	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 15:03	EPA 300.0	
<b>% Moisture</b>	<b>14.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>40.3</b>	29.1	mg/kg dry	1	P2H1809	08/18/22 16:04	08/21/22 16:10	TPH 8015M	
<b>&gt;C12-C28</b>	<b>78.7</b>	29.1	mg/kg dry	1	P2H1809	08/18/22 16:04	08/21/22 16:10	TPH 8015M	
<b>&gt;C28-C35</b>	<b>40.6</b>	29.1	mg/kg dry	1	P2H1809	08/18/22 16:04	08/21/22 16:10	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>93.6 %</i>		<i>70-130</i>		<i>P2H1809</i>	<i>08/18/22 16:04</i>	<i>08/21/22 16:10</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>103 %</i>		<i>70-130</i>		<i>P2H1809</i>	<i>08/18/22 16:04</i>	<i>08/21/22 16:10</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>160</b>	29.1	mg/kg dry	1	[CALC]	08/18/22 16:04	08/21/22 16:10	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**AH - 1 @ 4FT**  
**2H17011-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0681</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:25	EPA 8021B	
<b>Toluene</b>	<b>0.341</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:25	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.335</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:25	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.571</b>	0.00204	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:25	EPA 8021B	
<b>Xylene (o)</b>	<b>0.275</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 01:25	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	80.7 %		80-120		P2H1811	08/18/22 16:11	08/19/22 01:25	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	112 %		80-120		P2H1811	08/18/22 16:11	08/19/22 01:25	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>757</b>	1.02	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 15:17	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>84.7</b>	25.5	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 19:33	TPH 8015M	
<b>&gt;C12-C28</b>	<b>201</b>	25.5	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 19:33	TPH 8015M	
<b>&gt;C28-C35</b>	<b>106</b>	25.5	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 19:33	TPH 8015M	
Surrogate: 1-Chlorooctane	91.6 %		70-130		P2H1809	08/18/22 16:04	08/22/22 19:33	TPH 8015M	
Surrogate: o-Terphenyl	112 %		70-130		P2H1809	08/18/22 16:04	08/22/22 19:33	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>392</b>	25.5	mg/kg dry	1	[CALC]	08/18/22 16:04	08/22/22 19:33	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**AH - 1 @ 5FT**  
**2H17011-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>1.42</b>	0.0213	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 01:46	EPA 8021B	
<b>Toluene</b>	<b>6.49</b>	0.0213	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 01:46	EPA 8021B	
<b>Ethylbenzene</b>	<b>3.58</b>	0.0213	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 01:46	EPA 8021B	
<b>Xylene (p/m)</b>	<b>6.22</b>	0.0426	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 01:46	EPA 8021B	
<b>Xylene (o)</b>	<b>2.18</b>	0.0213	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 01:46	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>80.0 %</i>		<i>80-120</i>		<i>P2H1811</i>	<i>08/18/22 16:11</i>	<i>08/19/22 01:46</i>	<i>EPA 8021B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>115 %</i>		<i>80-120</i>		<i>P2H1811</i>	<i>08/18/22 16:11</i>	<i>08/19/22 01:46</i>	<i>EPA 8021B</i>	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>1390</b>	1.06	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 15:30	EPA 300.0	
<b>% Moisture</b>	<b>6.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>263</b>	26.6	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 20:41	TPH 8015M	
<b>&gt;C12-C28</b>	<b>1130</b>	26.6	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 20:41	TPH 8015M	
<b>&gt;C28-C35</b>	<b>425</b>	26.6	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 20:41	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>89.9 %</i>		<i>70-130</i>		<i>P2H1809</i>	<i>08/18/22 16:04</i>	<i>08/22/22 20:41</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>107 %</i>		<i>70-130</i>		<i>P2H1809</i>	<i>08/18/22 16:04</i>	<i>08/22/22 20:41</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>1820</b>	26.6	mg/kg dry	1	[CALC]	08/18/22 16:04	08/22/22 20:41	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**AH - 1 @ 6FT**  
**2H17011-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0345</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 02:07	EPA 8021B	
<b>Toluene</b>	<b>0.190</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 02:07	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.117</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 02:07	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.230</b>	0.00204	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 02:07	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0861</b>	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 02:07	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	115 %		80-120		P2H1811	08/18/22 16:11	08/19/22 02:07	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	81.5 %		80-120		P2H1811	08/18/22 16:11	08/19/22 02:07	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>534</b>	1.02	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 15:43	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>32.8</b>	25.5	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 08:53	TPH 8015M	
<b>&gt;C12-C28</b>	<b>38.7</b>	25.5	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 08:53	TPH 8015M	
<b>&gt;C28-C35</b>	<b>ND</b>	25.5	mg/kg dry	1	P2H1809	08/18/22 16:04	08/22/22 08:53	TPH 8015M	
Surrogate: 1-Chlorooctane	104 %		70-130		P2H1809	08/18/22 16:04	08/22/22 08:53	TPH 8015M	
Surrogate: o-Terphenyl	113 %		70-130		P2H1809	08/18/22 16:04	08/22/22 08:53	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>71.5</b>	25.5	mg/kg dry	1	[CALC]	08/18/22 16:04	08/22/22 08:53	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1811 - \*\*\* DEFAULT PREP \*\*\*

Blank (P2H1811-BLK1)		Prepared & Analyzed: 08/18/22								
Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0986		"	0.120		82.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.139		"	0.120		116	80-120			

LCS (P2H1811-BS1)		Prepared & Analyzed: 08/18/22								
Benzene	0.111	0.00100	mg/kg	0.100		111	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.117	0.00100	"	0.100		117	80-120			
Xylene (p/m)	0.204	0.00200	"	0.200		102	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.100		"	0.120		83.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	80-120			

LCS Dup (P2H1811-BSD1)		Prepared & Analyzed: 08/18/22								
Benzene	0.0982	0.00100	mg/kg	0.100		98.2	80-120	12.1	20	
Toluene	0.0911	0.00100	"	0.100		91.1	80-120	13.5	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120	11.9	20	
Xylene (p/m)	0.180	0.00200	"	0.200		90.0	80-120	12.3	20	
Xylene (o)	0.0885	0.00100	"	0.100		88.5	80-120	14.3	20	
Surrogate: 4-Bromofluorobenzene	0.138		"	0.120		115	80-120			
Surrogate: 1,4-Difluorobenzene	0.0974		"	0.120		81.2	80-120			

Calibration Blank (P2H1811-CCB1)		Prepared & Analyzed: 08/18/22								
Benzene	0.160		ug/kg							
Toluene	0.280		"							
Ethylbenzene	0.330		"							
Xylene (p/m)	0.410		"							
Xylene (o)	0.240		"							
Surrogate: 4-Bromofluorobenzene	0.139		"	0.120		116	80-120			
Surrogate: 1,4-Difluorobenzene	0.0986		"	0.120		82.2	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1811 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P2H1811-CCB2)**

Prepared & Analyzed: 08/18/22

Benzene	0.180		ug/kg							
Toluene	0.990		"							
Ethylbenzene	0.380		"							
Xylene (p/m)	0.800		"							
Xylene (o)	0.370		"							
Surrogate: 1,4-Difluorobenzene	0.0976		"	0.120		81.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	80-120			

**Calibration Check (P2H1811-CCV1)**

Prepared & Analyzed: 08/18/22

Benzene	0.113	0.00100	mg/kg	0.102		111	80-120			
Toluene	0.105	0.00100	"	0.102		103	80-120			
Ethylbenzene	0.107	0.00100	"	0.102		105	80-120			
Xylene (p/m)	0.203	0.00200	"	0.204		99.5	80-120			
Xylene (o)	0.102	0.00100	"	0.102		100	80-120			
Surrogate: 4-Bromofluorobenzene	0.142		"	0.120		118	75-125			
Surrogate: 1,4-Difluorobenzene	0.100		"	0.120		83.7	75-125			

**Calibration Check (P2H1811-CCV2)**

Prepared & Analyzed: 08/18/22

Benzene	0.112	0.00100	mg/kg	0.102		110	80-120			
Toluene	0.106	0.00100	"	0.102		104	80-120			
Ethylbenzene	0.103	0.00100	"	0.102		101	80-120			
Xylene (p/m)	0.205	0.00200	"	0.204		101	80-120			
Xylene (o)	0.102	0.00100	"	0.102		100	80-120			
Surrogate: 4-Bromofluorobenzene	0.147		"	0.120		123	75-125			
Surrogate: 1,4-Difluorobenzene	0.103		"	0.120		85.8	75-125			

**Calibration Check (P2H1811-CCV3)**

Prepared: 08/18/22 Analyzed: 08/19/22

Benzene	0.102	0.00100	mg/kg	0.102		100	80-120			
Toluene	0.0927	0.00100	"	0.102		90.9	80-120			
Ethylbenzene	0.0919	0.00100	"	0.102		90.1	80-120			
Xylene (p/m)	0.174	0.00200	"	0.204		85.2	80-120			
Xylene (o)	0.0922	0.00100	"	0.102		90.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.160		"	0.120		133	75-125			S-GC
Surrogate: 1,4-Difluorobenzene	0.0987		"	0.120		82.3	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1811 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike (P2H1811-MS1)		Source: 2H18001-01		Prepared: 08/18/22		Analyzed: 08/19/22				
Benzene	0.0953	0.00116	mg/kg dry	0.116	ND	82.0	80-120			
Toluene	0.0866	0.00116	"	0.116	ND	74.5	80-120			QM-05
Ethylbenzene	0.0939	0.00116	"	0.116	ND	80.8	80-120			
Xylene (p/m)	0.175	0.00233	"	0.233	ND	75.0	80-120			QM-05
Xylene (o)	0.0829	0.00116	"	0.116	ND	71.3	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	0.119		"	0.140		85.1	80-120			
Surrogate: 4-Bromofluorobenzene	0.195		"	0.140		140	80-120			S-GC
Matrix Spike Dup (P2H1811-MSD1)		Source: 2H18001-01		Prepared: 08/18/22		Analyzed: 08/19/22				
Benzene	0.100	0.00116	mg/kg dry	0.116	ND	86.4	80-120	5.25	20	
Toluene	0.0915	0.00116	"	0.116	ND	78.7	80-120	5.50	20	QM-05
Ethylbenzene	0.100	0.00116	"	0.116	ND	86.1	80-120	6.36	20	
Xylene (p/m)	0.177	0.00233	"	0.233	ND	75.9	80-120	1.18	20	QM-05
Xylene (o)	0.0892	0.00116	"	0.116	ND	76.7	80-120	7.34	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.192		"	0.140		138	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.118		"	0.140		84.3	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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 P2H1802 - *** DEFAULT PREP ***										
Blank (P2H1802-BLK1)				Prepared & Analyzed: 08/18/22						
% Moisture	ND	0.1	%							
Blank (P2H1802-BLK2)				Prepared & Analyzed: 08/18/22						
% Moisture	ND	0.1	%							
Duplicate (P2H1802-DUP1)				Source: 2H16015-01		Prepared & Analyzed: 08/18/22				
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (P2H1802-DUP2)				Source: 2H16019-01		Prepared & Analyzed: 08/18/22				
% Moisture	8.0	0.1	%		7.0			13.3	20	
Duplicate (P2H1802-DUP3)				Source: 2H16023-04		Prepared & Analyzed: 08/18/22				
% Moisture	ND	0.1	%		ND				20	
Duplicate (P2H1802-DUP4)				Source: 2H16026-01		Prepared & Analyzed: 08/18/22				
% Moisture	5.0	0.1	%		5.0			0.00	20	
Duplicate (P2H1802-DUP5)				Source: 2H17010-09		Prepared & Analyzed: 08/18/22				
% Moisture	7.0	0.1	%		7.0			0.00	20	
Duplicate (P2H1802-DUP6)				Source: 2H17012-03		Prepared & Analyzed: 08/18/22				
% Moisture	7.0	0.1	%		7.0			0.00	20	
Duplicate (P2H1802-DUP7)				Source: 2H17016-02		Prepared & Analyzed: 08/18/22				
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P2H1802-DUP8)				Source: 2H17017-03		Prepared & Analyzed: 08/18/22				
% Moisture	6.0	0.1	%		5.0			18.2	20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1916 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P2H1916-BLK1)**

Prepared & Analyzed: 08/24/22

Chloride	ND	1.00	mg/kg
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**LCS (P2H1916-BS1)**

Prepared & Analyzed: 08/24/22

Chloride	40.6		mg/kg	40.0	102	90-110
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**LCS Dup (P2H1916-BSD1)**

Prepared & Analyzed: 08/24/22

Chloride	42.1		mg/kg	40.0	105	90-110	3.61	10
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**Calibration Blank (P2H1916-CCB1)**

Prepared & Analyzed: 08/24/22

Chloride	0.0310		mg/kg
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**Calibration Blank (P2H1916-CCB2)**

Prepared & Analyzed: 08/24/22

Chloride	0.0960		mg/kg
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**Calibration Check (P2H1916-CCV1)**

Prepared & Analyzed: 08/24/22

Chloride	20.1		mg/kg	20.0	101	90-110
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**Calibration Check (P2H1916-CCV2)**

Prepared & Analyzed: 08/24/22

Chloride	18.6		mg/kg	20.0	92.9	90-110
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**Calibration Check (P2H1916-CCV3)**

Prepared & Analyzed: 08/24/22

Chloride	20.4		mg/kg	20.0	102	90-110
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**Matrix Spike (P2H1916-MS1)**

Source: 2H16025-01

Prepared & Analyzed: 08/24/22

Chloride	2610	10.9	mg/kg dry	543	1990	115	80-120
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**Matrix Spike (P2H1916-MS2)**

Source: 2H17010-07

Prepared & Analyzed: 08/24/22

Chloride	853	1.03	mg/kg dry	258	646	80.2	80-120
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1916 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike Dup (P2H1916-MSD1)	Source: 2H16025-01		Prepared & Analyzed: 08/24/22							
Chloride	2570	10.9	mg/kg dry	543	1990	107	80-120	1.51	20	
Matrix Spike Dup (P2H1916-MSD2)	Source: 2H17010-07		Prepared & Analyzed: 08/24/22							
Chloride	846	1.03	mg/kg dry	258	646	77.6	80-120	0.791	20	QM-05

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1809 - TX 1005**

**Blank (P2H1809-BLK1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	55.2		"	50.0		110	70-130			

**LCS (P2H1809-BS1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	1020	25.0	mg/kg	1000		102	75-125			
>C12-C28	1040	25.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	54.9		"	50.0		110	70-130			

**LCS Dup (P2H1809-BSD1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	983	25.0	mg/kg	1000		98.3	75-125	3.56	20	
>C12-C28	1000	25.0	"	1000		100	75-125	3.08	20	
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	53.8		"	50.0		108	70-130			

**Calibration Check (P2H1809-CCV1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	532	25.0	mg/kg	500		106	85-115			
>C12-C28	571	25.0	"	500		114	85-115			
Surrogate: 1-Chlorooctane	125		"	100		125	70-130			
Surrogate: o-Terphenyl	56.4		"	50.0		113	70-130			

**Calibration Check (P2H1809-CCV2)**

Prepared: 08/18/22 Analyzed: 08/21/22

C6-C12	550	25.0	mg/kg	500		110	85-115			
>C12-C28	560	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	56.2		"	50.0		112	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1809 - TX 1005

Calibration Check (P2H1809-CCV3)				Prepared: 08/18/22 Analyzed: 08/22/22						
C6-C12	445	25.0	mg/kg	500		89.0	85-115			
>C12-C28	524	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	91.1		"	100		91.1	70-130			
Surrogate: o-Terphenyl	63.1		"	50.0		126	70-130			
Duplicate (P2H1809-DUP1)				Source: 2H17010-05		Prepared: 08/18/22 Analyzed: 08/22/22				
C6-C12	4930	532	mg/kg dry		5590			12.7	20	
>C12-C28	29300	532	"		31300			6.69	20	
Surrogate: 1-Chlorooctane	115		"	106		108	70-130			
Surrogate: o-Terphenyl	55.3		"	53.2		104	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

### 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-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:



Date:

8/25/2022

Brent Barron, Laboratory Director/Technical Director

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

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

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



**PBRELAB**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Phone: 432-686-7235

PG. 1 of 1

Project Manager: Elizabeth Stuart

Company Name: Dean

Address: 12600 W. County Rd. 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: Cherie Fortson

Fax No:

e-mail:

Khudgenso paalp.com  
kaylanlongee@deanequip.com  
jenniferperez@deandigs.com  
elizabethstuart@deandigs.com

Project Name: PP-22234 - West B4 ReleasesProject #: PP-22234

Pioneer Case #:

Project Loc: Eddy County, NMWORK ORDER #: SRS-2022-053AFE/COST CENTER: Karolanne HudgensReport Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 2H17011

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Preservation &amp; # of Containers

Matrix

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

48 hour TAT

Special Instructions:

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:  
Sample Containers Intact? ☒  
VOCs Free of Headspace? ☒

Labels on container(s)

Custody seals on container(s)

Sample Hand Delivered

by Counter? ☒Temperature Upon Receipt: 3.0 °CAdjusted: 3.0 °C Factor +1

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



# Analytical Report

**Prepared for:**

Elizabeth Stuart  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: PP-22234- West B4 Release

Project Number: PP-22234

Location: Eddy County, NM

Lab Order Number: 2H17010



**Current Certification**

Report Date: 08/25/22

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ESW - 1 @ 1FT	2H17010-01	Soil	08/16/22 12:00	08-17-2022 12:53
ESW - 1 @ 2FT	2H17010-02	Soil	08/16/22 12:05	08-17-2022 12:53
NSW - 1 @ 1FT	2H17010-03	Soil	08/16/22 12:10	08-17-2022 12:53
NSW - 1 @ 1.5FT	2H17010-04	Soil	08/16/22 12:15	08-17-2022 12:53
WSW - 1 @ 6in.	2H17010-05	Soil	08/16/22 12:20	08-17-2022 12:53
WSW - 1 @ 1FT	2H17010-06	Soil	08/16/22 12:25	08-17-2022 12:53
SSW - 1 @ 6in	2H17010-07	Soil	08/16/22 12:30	08-17-2022 12:53
SSW - 1 @ 1.5FT	2H17010-08	Soil	08/16/22 12:35	08-17-2022 12:53
BH - 1 @ 2.5FT	2H17010-09	Soil	08/16/22 12:40	08-17-2022 12:53
BH - 2 @ 2FT	2H17010-10	Soil	08/16/22 12:45	08-17-2022 12:53
BH - 3 @ 3FT	2H17010-11	Soil	08/16/22 12:50	08-17-2022 12:53



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**ESW - 1 @ 1FT**  
**2H17010-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>1.13</b>	0.104	mg/kg dry	100	P2H1811	08/18/22 16:11	08/18/22 20:07	EPA 8021B	
<b>Toluene</b>	<b>23.6</b>	0.104	mg/kg dry	100	P2H1811	08/18/22 16:11	08/18/22 20:07	EPA 8021B	
<b>Ethylbenzene</b>	<b>27.2</b>	0.104	mg/kg dry	100	P2H1811	08/18/22 16:11	08/18/22 20:07	EPA 8021B	
<b>Xylene (p/m)</b>	<b>47.6</b>	0.208	mg/kg dry	100	P2H1811	08/18/22 16:11	08/18/22 20:07	EPA 8021B	
<b>Xylene (o)</b>	<b>21.0</b>	0.104	mg/kg dry	100	P2H1811	08/18/22 16:11	08/18/22 20:07	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	132 %		80-120		P2H1811	08/18/22 16:11	08/18/22 20:07	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	92.8 %		80-120		P2H1811	08/18/22 16:11	08/18/22 20:07	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>378</b>	1.04	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 11:31	EPA 300.0	
<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>5890</b>	521	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 10:31	TPH 8015M	
<b>&gt;C12-C28</b>	<b>24800</b>	521	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 10:31	TPH 8015M	
<b>&gt;C28-C35</b>	<b>4610</b>	521	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 10:31	TPH 8015M	
Surrogate: 1-Chlorooctane	130 %		70-130		P2H1808	08/18/22 14:30	08/20/22 10:31	TPH 8015M	
Surrogate: o-Terphenyl	98.8 %		70-130		P2H1808	08/18/22 14:30	08/20/22 10:31	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>35300</b>	521	mg/kg dry	20	[CALC]	08/18/22 14:30	08/20/22 10:31	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**ESW - 1 @ 2FT**  
**2H17010-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0747</b>	0.0204	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 20:29	EPA 8021B	
<b>Toluene</b>	<b>1.11</b>	0.0204	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 20:29	EPA 8021B	
<b>Ethylbenzene</b>	<b>5.14</b>	0.0204	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 20:29	EPA 8021B	
<b>Xylene (p/m)</b>	<b>12.7</b>	0.0408	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 20:29	EPA 8021B	
<b>Xylene (o)</b>	<b>6.76</b>	0.0204	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 20:29	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	135 %	80-120			P2H1811	08/18/22 16:11	08/18/22 20:29	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	95.4 %	80-120			P2H1811	08/18/22 16:11	08/18/22 20:29	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>266</b>	1.02	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 11:44	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2310</b>	510	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 10:53	TPH 8015M	
<b>&gt;C12-C28</b>	<b>15300</b>	510	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 10:53	TPH 8015M	
<b>&gt;C28-C35</b>	<b>2730</b>	510	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 10:53	TPH 8015M	
Surrogate: 1-Chlorooctane	101 %	70-130			P2H1808	08/18/22 14:30	08/20/22 10:53	TPH 8015M	
Surrogate: o-Terphenyl	101 %	70-130			P2H1808	08/18/22 14:30	08/20/22 10:53	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>20300</b>	510	mg/kg dry	20	[CALC]	08/18/22 14:30	08/20/22 10:53	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**NSW - 1 @ 1FT**  
**2H17010-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 20:50	EPA 8021B	
Toluene	0.0341	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 20:50	EPA 8021B	
Ethylbenzene	0.0569	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 20:50	EPA 8021B	
Xylene (p/m)	0.278	0.00204	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 20:50	EPA 8021B	
Xylene (o)	0.0984	0.00102	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 20:50	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	81.5 %		80-120		P2H1811	08/18/22 16:11	08/18/22 20:50	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	83.6 %		80-120		P2H1811	08/18/22 16:11	08/18/22 20:50	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	7100	10.2	mg/kg dry	10	P2H1916	08/19/22 16:07	08/24/22 11:57	EPA 300.0	
% Moisture	2.0	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	1030	510	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 11:16	TPH 8015M	
>C12-C28	23600	510	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 11:16	TPH 8015M	
>C28-C35	4090	510	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 11:16	TPH 8015M	
Surrogate: 1-Chlorooctane	91.8 %		70-130		P2H1808	08/18/22 14:30	08/20/22 11:16	TPH 8015M	
Surrogate: o-Terphenyl	99.2 %		70-130		P2H1808	08/18/22 14:30	08/20/22 11:16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	28700	510	mg/kg dry	20	[CALC]	08/18/22 14:30	08/20/22 11:16	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**NSW - 1 @ 1.5FT**  
**2H17010-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00160</b>	0.00101	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 21:11	EPA 8021B	
<b>Toluene</b>	<b>0.0598</b>	0.00101	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 21:11	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.117</b>	0.00101	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 21:11	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.746</b>	0.00202	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 21:11	EPA 8021B	
<b>Xylene (o)</b>	<b>0.325</b>	0.00101	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 21:11	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>86.6 %</i>		<i>80-120</i>		<i>P2H1811</i>	<i>08/18/22 16:11</i>	<i>08/18/22 21:11</i>	<i>EPA 8021B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>109 %</i>		<i>80-120</i>		<i>P2H1811</i>	<i>08/18/22 16:11</i>	<i>08/18/22 21:11</i>	<i>EPA 8021B</i>	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>624</b>	1.01	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 12:11	EPA 300.0	
<b>% Moisture</b>	<b>1.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>1810</b>	505	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 11:39	TPH 8015M	
<b>&gt;C12-C28</b>	<b>18400</b>	505	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 11:39	TPH 8015M	
<b>&gt;C28-C35</b>	<b>3150</b>	505	mg/kg dry	20	P2H1808	08/18/22 14:30	08/20/22 11:39	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>96.6 %</i>		<i>70-130</i>		<i>P2H1808</i>	<i>08/18/22 14:30</i>	<i>08/20/22 11:39</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>93.6 %</i>		<i>70-130</i>		<i>P2H1808</i>	<i>08/18/22 14:30</i>	<i>08/20/22 11:39</i>	<i>TPH 8015M</i>	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>23400</b>	505	mg/kg dry	20	[CALC]	08/18/22 14:30	08/20/22 11:39	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

WSW - 1 @ 6in.  
2H17010-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

<b>BTEX by 8021B</b>									
Benzene	0.0845	0.0213	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 21:33	EPA 8021B	
Toluene	7.99	0.106	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:26	EPA 8021B	
Ethylbenzene	20.8	0.106	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:26	EPA 8021B	
Xylene (p/m)	45.9	0.213	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:26	EPA 8021B	
Xylene (o)	21.7	0.106	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:26	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	77.8 %		80-120		P2H1811	08/18/22 16:11	08/19/22 10:26	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene	120 %		80-120		P2H1811	08/18/22 16:11	08/19/22 10:26	EPA 8021B	

<b>General Chemistry Parameters by EPA / Standard Methods</b>									
Chloride	1340	5.32	mg/kg dry	5	P2H1916	08/19/22 16:07	08/25/22 02:38	EPA 300.0	
% Moisture	6.0	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>									
C6-C12	5590	532	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 14:41	TPH 8015M	
>C12-C28	31300	532	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 14:41	TPH 8015M	
>C28-C35	5040	532	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 14:41	TPH 8015M	
Surrogate: 1-Chlorooctane	127 %		70-130		P2H1809	08/18/22 16:04	08/20/22 14:41	TPH 8015M	
Surrogate: o-Terphenyl	106 %		70-130		P2H1809	08/18/22 16:04	08/20/22 14:41	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	42000	532	mg/kg dry	20	[CALC]	08/18/22 16:04	08/20/22 14:41	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**WSW - 1 @ 1FT**  
**2H17010-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0554</b>	0.0217	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 21:54	EPA 8021B	
<b>Toluene</b>	<b>4.12</b>	0.0217	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 21:54	EPA 8021B	
<b>Ethylbenzene</b>	<b>8.12</b>	0.0217	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 21:54	EPA 8021B	
<b>Xylene (p/m)</b>	<b>16.6</b>	0.0435	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 21:54	EPA 8021B	
<b>Xylene (o)</b>	<b>8.66</b>	0.0217	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 21:54	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	74.0 %		80-120		P2H1811	08/18/22 16:11	08/18/22 21:54	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene	107 %		80-120		P2H1811	08/18/22 16:11	08/18/22 21:54	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>2660</b>	5.43	mg/kg dry	5	P2H1916	08/19/22 16:07	08/24/22 12:37	EPA 300.0	
<b>% Moisture</b>	<b>8.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>5720</b>	543	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:04	TPH 8015M	
<b>&gt;C12-C28</b>	<b>29200</b>	543	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:04	TPH 8015M	
<b>&gt;C28-C35</b>	<b>4810</b>	543	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:04	TPH 8015M	
Surrogate: 1-Chlorooctane	150 %		70-130		P2H1809	08/18/22 16:04	08/20/22 15:04	TPH 8015M	S-GC
Surrogate: o-Terphenyl	100 %		70-130		P2H1809	08/18/22 16:04	08/20/22 15:04	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>39700</b>	543	mg/kg dry	20	[CALC]	08/18/22 16:04	08/20/22 15:04	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**SSW - 1 @ 6in**  
**2H17010-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.0206	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 22:57	EPA 8021B	
Toluene	0.139	0.0206	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 22:57	EPA 8021B	
Ethylbenzene	0.438	0.0206	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 22:57	EPA 8021B	
Xylene (p/m)	2.40	0.0412	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 22:57	EPA 8021B	
Xylene (o)	0.961	0.0206	mg/kg dry	20	P2H1811	08/18/22 16:11	08/18/22 22:57	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	72.7 %		80-120		P2H1811	08/18/22 16:11	08/18/22 22:57	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene	104 %		80-120		P2H1811	08/18/22 16:11	08/18/22 22:57	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	646	1.03	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 13:17	EPA 300.0	
% Moisture	3.0	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	699	515	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:27	TPH 8015M	
>C12-C28	19500	515	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:27	TPH 8015M	
>C28-C35	4300	515	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:27	TPH 8015M	
Surrogate: 1-Chlorooctane	90.4 %		70-130		P2H1809	08/18/22 16:04	08/20/22 15:27	TPH 8015M	
Surrogate: o-Terphenyl	93.6 %		70-130		P2H1809	08/18/22 16:04	08/20/22 15:27	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	24500	515	mg/kg dry	20	[CALC]	08/18/22 16:04	08/20/22 15:27	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**SSW - 1 @ 1.5FT**  
**2H17010-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0145</b>	0.00118	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 23:18	EPA 8021B	
<b>Toluene</b>	<b>2.79</b>	0.0235	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 11:12	EPA 8021B	
<b>Ethylbenzene</b>	<b>4.68</b>	0.0235	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 11:12	EPA 8021B	
<b>Xylene (p/m)</b>	<b>10.1</b>	0.0471	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 11:12	EPA 8021B	
<b>Xylene (o)</b>	<b>5.15</b>	0.0235	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 11:12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	77.1 %		80-120		P2H1811	08/18/22 16:11	08/19/22 11:12	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene	116 %		80-120		P2H1811	08/18/22 16:11	08/19/22 11:12	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>211</b>	1.18	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 13:57	EPA 300.0	
<b>% Moisture</b>	<b>15.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2000</b>	588	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:50	TPH 8015M	
<b>&gt;C12-C28</b>	<b>29600</b>	588	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:50	TPH 8015M	
<b>&gt;C28-C35</b>	<b>5360</b>	588	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 15:50	TPH 8015M	
Surrogate: 1-Chlorooctane	104 %		70-130		P2H1809	08/18/22 16:04	08/20/22 15:50	TPH 8015M	
Surrogate: o-Terphenyl	104 %		70-130		P2H1809	08/18/22 16:04	08/20/22 15:50	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>36900</b>	588	mg/kg dry	20	[CALC]	08/18/22 16:04	08/20/22 15:50	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**BH - 1 @ 2.5FT**  
**2H17010-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00108	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 23:39	EPA 8021B	
<b>Toluene</b>	<b>0.00475</b>	0.00108	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 23:39	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0387</b>	0.00108	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 23:39	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0677</b>	0.00215	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 23:39	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0332</b>	0.00108	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 23:39	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	112 %		80-120		P2H1811	08/18/22 16:11	08/18/22 23:39	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	87.8 %		80-120		P2H1811	08/18/22 16:11	08/18/22 23:39	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>587</b>	1.08	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 14:10	EPA 300.0	
<b>% Moisture</b>	<b>7.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>544</b>	538	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 16:12	TPH 8015M	
<b>&gt;C12-C28</b>	<b>7140</b>	538	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 16:12	TPH 8015M	
<b>&gt;C28-C35</b>	<b>2100</b>	538	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 16:12	TPH 8015M	
Surrogate: 1-Chlorooctane	88.2 %		70-130		P2H1809	08/18/22 16:04	08/20/22 16:12	TPH 8015M	
Surrogate: o-Terphenyl	101 %		70-130		P2H1809	08/18/22 16:04	08/20/22 16:12	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>9780</b>	538	mg/kg dry	20	[CALC]	08/18/22 16:04	08/20/22 16:12	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**BH - 2 @ 2FT**  
**2H17010-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:00	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:00	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00191</b>	0.00103	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:00	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:00	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00195</b>	0.00103	mg/kg dry	1	P2H1811	08/18/22 16:11	08/19/22 00:00	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	113 %		80-120		P2H1811	08/18/22 16:11	08/19/22 00:00	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	86.7 %		80-120		P2H1811	08/18/22 16:11	08/19/22 00:00	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>196</b>	1.03	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 14:24	EPA 300.0	
<b>% Moisture</b>	<b>3.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	515	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 16:35	TPH 8015M	
<b>&gt;C12-C28</b>	<b>1770</b>	515	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 16:35	TPH 8015M	
<b>&gt;C28-C35</b>	<b>713</b>	515	mg/kg dry	20	P2H1809	08/18/22 16:04	08/20/22 16:35	TPH 8015M	
Surrogate: 1-Chlorooctane	91.6 %		70-130		P2H1809	08/18/22 16:04	08/20/22 16:35	TPH 8015M	
Surrogate: o-Terphenyl	99.2 %		70-130		P2H1809	08/18/22 16:04	08/20/22 16:35	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>2490</b>	515	mg/kg dry	20	[CALC]	08/18/22 16:04	08/20/22 16:35	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**BH - 3 @ 3FT**  
**2H17010-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>2.98</b>	0.0215	mg/kg dry	20	P2H1811	08/18/22 16:11	08/19/22 00:21	EPA 8021B	
<b>Toluene</b>	<b>42.9</b>	0.108	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:47	EPA 8021B	
<b>Ethylbenzene</b>	<b>37.1</b>	0.108	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:47	EPA 8021B	
<b>Xylene (p/m)</b>	<b>82.0</b>	0.215	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:47	EPA 8021B	
<b>Xylene (o)</b>	<b>37.5</b>	0.108	mg/kg dry	100	P2H1811	08/18/22 16:11	08/19/22 10:47	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	114 %		80-120		P2H1811	08/18/22 16:11	08/19/22 10:47	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	74.6 %		80-120		P2H1811	08/18/22 16:11	08/19/22 10:47	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>545</b>	1.08	mg/kg dry	1	P2H1916	08/19/22 16:07	08/24/22 14:37	EPA 300.0	
<b>% Moisture</b>	<b>7.0</b>	0.1	%	1	P2H1802	08/18/22 09:43	08/18/22 09:47	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>6230</b>	538	mg/kg dry	20	P2H1809	08/18/22 16:04	08/21/22 15:23	TPH 8015M	
<b>&gt;C12-C28</b>	<b>15000</b>	538	mg/kg dry	20	P2H1809	08/18/22 16:04	08/21/22 15:23	TPH 8015M	
<b>&gt;C28-C35</b>	<b>3160</b>	538	mg/kg dry	20	P2H1809	08/18/22 16:04	08/21/22 15:23	TPH 8015M	
Surrogate: 1-Chlorooctane	176 %		70-130		P2H1809	08/18/22 16:04	08/21/22 15:23	TPH 8015M	S-GC
Surrogate: o-Terphenyl	109 %		70-130		P2H1809	08/18/22 16:04	08/21/22 15:23	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>24400</b>	538	mg/kg dry	20	[CALC]	08/18/22 16:04	08/21/22 15:23	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1811 - \*\*\* DEFAULT PREP \*\*\*

Blank (P2H1811-BLK1)			Prepared & Analyzed: 08/18/22							
Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.139		"	0.120		116	80-120			
Surrogate: 1,4-Difluorobenzene	0.0986		"	0.120		82.2	80-120			

LCS (P2H1811-BS1)			Prepared & Analyzed: 08/18/22							
Benzene	0.111	0.00100	mg/kg	0.100		111	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.117	0.00100	"	0.100		117	80-120			
Xylene (p/m)	0.204	0.00200	"	0.200		102	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.100		"	0.120		83.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	80-120			

LCS Dup (P2H1811-BSD1)			Prepared & Analyzed: 08/18/22							
Benzene	0.0982	0.00100	mg/kg	0.100		98.2	80-120	12.1	20	
Toluene	0.0911	0.00100	"	0.100		91.1	80-120	13.5	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120	11.9	20	
Xylene (p/m)	0.180	0.00200	"	0.200		90.0	80-120	12.3	20	
Xylene (o)	0.0885	0.00100	"	0.100		88.5	80-120	14.3	20	
Surrogate: 4-Bromofluorobenzene	0.138		"	0.120		115	80-120			
Surrogate: 1,4-Difluorobenzene	0.0974		"	0.120		81.2	80-120			

Calibration Blank (P2H1811-CCB1)			Prepared & Analyzed: 08/18/22							
Benzene	0.160		ug/kg							
Toluene	0.280		"							
Ethylbenzene	0.330		"							
Xylene (p/m)	0.410		"							
Xylene (o)	0.240		"							
Surrogate: 4-Bromofluorobenzene	0.139		"	0.120		116	80-120			
Surrogate: 1,4-Difluorobenzene	0.0986		"	0.120		82.2	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1811 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P2H1811-CCB2)**

Prepared & Analyzed: 08/18/22

Benzene	0.180		ug/kg							
Toluene	0.990		"							
Ethylbenzene	0.380		"							
Xylene (p/m)	0.800		"							
Xylene (o)	0.370		"							
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	80-120			
Surrogate: 1,4-Difluorobenzene	0.0976		"	0.120		81.4	80-120			

**Calibration Check (P2H1811-CCV1)**

Prepared & Analyzed: 08/18/22

Benzene	0.113	0.00100	mg/kg	0.102		111	80-120			
Toluene	0.105	0.00100	"	0.102		103	80-120			
Ethylbenzene	0.107	0.00100	"	0.102		105	80-120			
Xylene (p/m)	0.203	0.00200	"	0.204		99.5	80-120			
Xylene (o)	0.102	0.00100	"	0.102		100	80-120			
Surrogate: 1,4-Difluorobenzene	0.100		"	0.120		83.7	75-125			
Surrogate: 4-Bromofluorobenzene	0.142		"	0.120		118	75-125			

**Calibration Check (P2H1811-CCV2)**

Prepared & Analyzed: 08/18/22

Benzene	0.112	0.00100	mg/kg	0.102		110	80-120			
Toluene	0.106	0.00100	"	0.102		104	80-120			
Ethylbenzene	0.103	0.00100	"	0.102		101	80-120			
Xylene (p/m)	0.205	0.00200	"	0.204		101	80-120			
Xylene (o)	0.102	0.00100	"	0.102		100	80-120			
Surrogate: 1,4-Difluorobenzene	0.103		"	0.120		85.8	75-125			
Surrogate: 4-Bromofluorobenzene	0.147		"	0.120		123	75-125			

**Calibration Check (P2H1811-CCV3)**

Prepared: 08/18/22 Analyzed: 08/19/22

Benzene	0.102	0.00100	mg/kg	0.102		100	80-120			
Toluene	0.0927	0.00100	"	0.102		90.9	80-120			
Ethylbenzene	0.0919	0.00100	"	0.102		90.1	80-120			
Xylene (p/m)	0.174	0.00200	"	0.204		85.2	80-120			
Xylene (o)	0.0922	0.00100	"	0.102		90.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.0987		"	0.120		82.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.160		"	0.120		133	75-125			S-GC

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1811 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike (P2H1811-MS1)		Source: 2H18001-01		Prepared: 08/18/22		Analyzed: 08/19/22				
Benzene	0.0953	0.00116	mg/kg dry	0.116	ND	82.0	80-120			
Toluene	0.0866	0.00116	"	0.116	ND	74.5	80-120			QM-05
Ethylbenzene	0.0939	0.00116	"	0.116	ND	80.8	80-120			
Xylene (p/m)	0.175	0.00233	"	0.233	ND	75.0	80-120			QM-05
Xylene (o)	0.0829	0.00116	"	0.116	ND	71.3	80-120			QM-05
Surrogate: 4-Bromofluorobenzene	0.195		"	0.140		140	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.119		"	0.140		85.1	80-120			
Matrix Spike Dup (P2H1811-MSD1)		Source: 2H18001-01		Prepared: 08/18/22		Analyzed: 08/19/22				
Benzene	0.100	0.00116	mg/kg dry	0.116	ND	86.4	80-120	5.25	20	
Toluene	0.0915	0.00116	"	0.116	ND	78.7	80-120	5.50	20	QM-05
Ethylbenzene	0.100	0.00116	"	0.116	ND	86.1	80-120	6.36	20	
Xylene (p/m)	0.177	0.00233	"	0.233	ND	75.9	80-120	1.18	20	QM-05
Xylene (o)	0.0892	0.00116	"	0.116	ND	76.7	80-120	7.34	20	QM-05
Surrogate: 1,4-Difluorobenzene	0.118		"	0.140		84.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.192		"	0.140		138	80-120			S-GC

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1802 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P2H1802-BLK1)**

Prepared & Analyzed: 08/18/22

% Moisture ND 0.1 %

**Blank (P2H1802-BLK2)**

Prepared & Analyzed: 08/18/22

% Moisture ND 0.1 %

**Duplicate (P2H1802-DUP1)**

Source: 2H16015-01

Prepared & Analyzed: 08/18/22

% Moisture 9.0 0.1 % 9.0 0.00 20

**Duplicate (P2H1802-DUP2)**

Source: 2H16019-01

Prepared & Analyzed: 08/18/22

% Moisture 8.0 0.1 % 7.0 13.3 20

**Duplicate (P2H1802-DUP3)**

Source: 2H16023-04

Prepared & Analyzed: 08/18/22

% Moisture ND 0.1 % ND 20

**Duplicate (P2H1802-DUP4)**

Source: 2H16026-01

Prepared & Analyzed: 08/18/22

% Moisture 5.0 0.1 % 5.0 0.00 20

**Duplicate (P2H1802-DUP5)**

Source: 2H17010-09

Prepared & Analyzed: 08/18/22

% Moisture 7.0 0.1 % 7.0 0.00 20

**Duplicate (P2H1802-DUP6)**

Source: 2H17012-03

Prepared & Analyzed: 08/18/22

% Moisture 7.0 0.1 % 7.0 0.00 20

**Duplicate (P2H1802-DUP7)**

Source: 2H17016-02

Prepared & Analyzed: 08/18/22

% Moisture 6.0 0.1 % 6.0 0.00 20

**Duplicate (P2H1802-DUP8)**

Source: 2H17017-03

Prepared & Analyzed: 08/18/22

% Moisture 6.0 0.1 % 5.0 18.2 20

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1916 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P2H1916-BLK1)**

Prepared & Analyzed: 08/24/22

Chloride	ND	1.00	mg/kg
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**LCS (P2H1916-BS1)**

Prepared & Analyzed: 08/24/22

Chloride	40.6		mg/kg	40.0	102	90-110
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**LCS Dup (P2H1916-BSD1)**

Prepared & Analyzed: 08/24/22

Chloride	42.1		mg/kg	40.0	105	90-110	3.61	10
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**Calibration Blank (P2H1916-CCB1)**

Prepared & Analyzed: 08/24/22

Chloride	0.0310		mg/kg
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**Calibration Blank (P2H1916-CCB2)**

Prepared & Analyzed: 08/24/22

Chloride	0.0960		mg/kg
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**Calibration Check (P2H1916-CCV1)**

Prepared & Analyzed: 08/24/22

Chloride	20.1		mg/kg	20.0	101	90-110
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**Calibration Check (P2H1916-CCV2)**

Prepared & Analyzed: 08/24/22

Chloride	18.6		mg/kg	20.0	92.9	90-110
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**Calibration Check (P2H1916-CCV3)**

Prepared & Analyzed: 08/24/22

Chloride	20.4		mg/kg	20.0	102	90-110
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**Matrix Spike (P2H1916-MS1)**

Source: 2H16025-01

Prepared & Analyzed: 08/24/22

Chloride	2610	10.9	mg/kg dry	543	1990	115	80-120
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**Matrix Spike (P2H1916-MS2)**

Source: 2H17010-07

Prepared & Analyzed: 08/24/22

Chloride	853	1.03	mg/kg dry	258	646	80.2	80-120
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1916 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike Dup (P2H1916-MSD1)			Source: 2H16025-01		Prepared & Analyzed: 08/24/22					
Chloride	2570	10.9	mg/kg dry	543	1990	107	80-120	1.51	20	
Matrix Spike Dup (P2H1916-MSD2)			Source: 2H17010-07		Prepared & Analyzed: 08/24/22					
Chloride	846	1.03	mg/kg dry	258	646	77.6	80-120	0.791	20	QM-05

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1808 - TX 1005**

**Blank (P2H1808-BLK1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	55.0		"	50.0		110	70-130			

**LCS (P2H1808-BS1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	971	25.0	mg/kg	1000		97.1	75-125			
>C12-C28	1010	25.0	"	1000		101	75-125			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	55.0		"	50.0		110	70-130			

**LCS Dup (P2H1808-BSD1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	1010	25.0	mg/kg	1000		101	75-125	3.44	20	
>C12-C28	1030	25.0	"	1000		103	75-125	2.27	20	
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	55.4		"	50.0		111	70-130			

**Calibration Check (P2H1808-CCV1)**

Prepared: 08/18/22 Analyzed: 08/22/22

C6-C12	436	25.0	mg/kg	500		87.1	85-115			
>C12-C28	516	25.0	"	500		103	85-115			
Surrogate: 1-Chlorooctane	83.9		"	100		83.9	70-130			
Surrogate: o-Terphenyl	53.2		"	50.0		106	70-130			

**Calibration Check (P2H1808-CCV2)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	522	25.0	mg/kg	500		104	85-115			
>C12-C28	549	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	55.5		"	50.0		111	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

**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
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**Batch P2H1808 - TX 1005**

**Duplicate (P2H1808-DUP1)**

Source: 2H17010-04

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	1800	505	mg/kg dry		1810			0.615	20	
>C12-C28	17900	505	"		18400			2.84	20	
Surrogate: 1-Chlorooctane	96.4		"	101		95.4	70-130			
Surrogate: o-Terphenyl	50.9		"	50.5		101	70-130			

**Batch P2H1809 - TX 1005**

**Blank (P2H1809-BLK1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	55.2		"	50.0		110	70-130			

**LCS (P2H1809-BS1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	1020	25.0	mg/kg	1000		102	75-125			
>C12-C28	1040	25.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	54.9		"	50.0		110	70-130			

**LCS Dup (P2H1809-BSD1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	983	25.0	mg/kg	1000		98.3	75-125	3.56	20	
>C12-C28	1000	25.0	"	1000		100	75-125	3.08	20	
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	53.8		"	50.0		108	70-130			

**Calibration Check (P2H1809-CCV1)**

Prepared: 08/18/22 Analyzed: 08/20/22

C6-C12	532	25.0	mg/kg	500		106	85-115			
>C12-C28	571	25.0	"	500		114	85-115			
Surrogate: 1-Chlorooctane	125		"	100		125	70-130			
Surrogate: o-Terphenyl	56.4		"	50.0		113	70-130			

Permian Basin Environmental Lab, L.P.

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Dean	Project: PP-22234- West B4 Release
12600 W County Rd 91	Project Number: PP-22234
Midland TX, 79707	Project Manager: Elizabeth Stuart

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
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Batch P2H1809 - TX 1005

Calibration Check (P2H1809-CCV2) Prepared: 08/18/22 Analyzed: 08/21/22

C6-C12	550	25.0	mg/kg	500		110	85-115			
>C12-C28	560	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	56.2		"	50.0		112	70-130			

Calibration Check (P2H1809-CCV3) Prepared: 08/18/22 Analyzed: 08/22/22

C6-C12	445	25.0	mg/kg	500		89.0	85-115			
>C12-C28	524	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	91.1		"	100		91.1	70-130			
Surrogate: o-Terphenyl	63.1		"	50.0		126	70-130			

Duplicate (P2H1809-DUP1) Source: 2H17010-05 Prepared: 08/18/22 Analyzed: 08/22/22

C6-C12	4930	532	mg/kg dry		5590			12.7	20	
>C12-C28	29300	532	"		31300			6.69	20	
Surrogate: 1-Chlorooctane	115		"	106		108	70-130			
Surrogate: o-Terphenyl	55.3		"	53.2		104	70-130			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: PP-22234- West B4 Release  
Project Number: PP-22234  
Project Manager: Elizabeth Stuart

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

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.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date: 8/25/2022

Brent Barron, Laboratory Director/Technical Director

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

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

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



**PBR LAB**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Phone: 432-686-7235

PG. 1 of 2

Project Manager: Elizabeth Stuart

Company Name: Dean

Address: 12600 W. County Rd. 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Fax No:

Sampler Signature: Chelsie Fenton

e-mail:

kayliandee@deandigs.com  
kayliandee@deandigs.com  
jenniferperez@deandigs.com  
elizabethstuart@deandigs.com

Project Name: PP-20234 - West 84 PolesProject #: 88-20234

Pioneer Case #:

Project Loc: Elddy County, NMWORK ORDER #: 565-2022-053AFE/COST CENTER: (Katharine Hudgens)Report Format: ☒ Standard☐ TRRP☐ NPDES

(lab use only)

ORDER #: 2H17010

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250 ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	Analyze For:	7 Day TAT	48 hour TAT
71	ESW-1 @ 1 Ft	1 Ft	1 Ft	8-16-22	12:00 pm		1	X									So. 1	X	X	X	X	X	X	X	X	X	X	X	X	X
72	ESW-1 @ 2 Ft	2 Ft	2 Ft		12:05 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
73	NSW-1 @ 1 Ft	1 Ft	1 Ft		12:10 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
74	NSW-1 @ 1.5 Ft	1.5 Ft	1.5 Ft		12:15 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
75	WSW-1 @ 6 in	6 in	6 in		12:20 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
76	WSW-1 @ 1 Ft	1 Ft	1 Ft		12:25 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
77	SSW-1 @ 6 in	6 in	6 in		12:30 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
78	SSW-1 @ 1.5 Ft	1.5 Ft	1.5 Ft		12:35 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
79	SH-1 @ 2.5 Ft	2.5 Ft	2.5 Ft		12:40 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X
70	BH-2 @ 2 Ft	2 Ft	2 Ft		12:45 pm		1	X										X	X	X	X	X	X	X	X	X	X	X	X	X

Special Instructions:

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Labels on container(s)

Custody seals on container(s)

Sample Hand Delivered

by Courier? UPS

by Sampler/Client Rep.?

Temperature Upon Receipt:

Adjusted: 3.0 °C Factor: 1

Laboratory Comments:

Sample Containers Intact?

VOCs Free of Headspace?

N

N

N

N

N

N

N



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

Phone: 432-6886-7235

PG. of 2

Project Manager: Elizabeth Stuart

Elizabeth Stuart

Company Name

Dean

Address: \_\_\_\_\_  
12600 W. County Rd. 31

12600 W. County Rd. 91

City/State/Zip: Midland TX 79701

Midland TX 79707

Telephone No: 432-230-0920

432-230-0920

Sampler Signature: Chris C. Fortson

Crustal Tectonics

Fax No:

432-230-0920

e-mail:

Kathryn's Office, CA  
kaylanbngie@deanequip.com  
jenniferperez@deandigs.com  
elizabethstuart@deandigs.com

[elizabethstuart@deandigs.com](mailto:elizabethstuart@deandigs.com)

Preservation &amp; # of Containers

Matrix

Analyze For

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

WORK ORDER #: SKS-3028-052  
AFE/ COST CENTER: (Knowledge Hygiene)

Project Name: PR-33334 - West by Release  
Project #: PR-33334 ~~West~~  
Pioneer-Cast #: \_\_\_\_\_  
Project Loc: Eddy County, NM

Page 25 of 25

*Released to Imaging: 3/18/2024 1:13:00 PM*



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



# Analytical Report

**Prepared for:**

Joel Lawry  
E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa, TX 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Location: 32.85094,-103.85942  
Lab Order Number: 3B17014



**Current Certification**

Report Date: 02/23/23



E Tech Environmental & Safety Solutions, Inc. [1] 13000 West County Road 100 Odessa TX, 79765	Project: West B4 Release Project Number: SRS#2022-053 Project Manager: Joel Lawry
---	---

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WHB @ Surface	3B17014-01	Soil	02/15/23 12:00	02-17-2023 12:06
WHB @ 1.5'	3B17014-02	Soil	02/15/23 12:20	02-17-2023 12:06
WH @ 2'	3B17014-03	Soil	02/15/23 12:40	02-17-2023 12:06
SHB @ Surface	3B17014-04	Soil	02/15/23 13:00	02-17-2023 12:06
SHB @ 1.5'	3B17014-05	Soil	02/15/23 13:20	02-17-2023 12:06

E Tech Environmental & Safety Solutions, Inc. [1]	Project: West B4 Release
13000 West County Road 100	Project Number: SRS#2022-053
Odessa TX, 79765	Project Manager: Joel Lawry

WHB @ Surface  
3B17014-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.05	mg/kg dry	1	P3B2103	02/21/23 09:30	02/21/23 16:51	EPA 300.0	
% Moisture	5.0	0.1	%	1	P3B2005	02/20/23 09:12	02/20/23 09:48	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc. [1] 13000 West County Road 100 Odessa TX, 79765	Project: West B4 Release Project Number: SRS#2022-053 Project Manager: Joel Lawry
---	---

WHB @ 1.5'

3B17014-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.06	mg/kg dry	1	P3B2103	02/21/23 09:30	02/21/23 17:06	EPA 300.0	
% Moisture	6.0	0.1	%	1	P3B2005	02/20/23 09:12	02/20/23 09:48	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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---	---

WH @ 2'  
3B17014-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	153	1.05	mg/kg dry	1	P3B2202	02/22/23 09:01	02/22/23 15:29	EPA 300.0	
% Moisture	5.0	0.1	%	1	P3B2005	02/20/23 09:12	02/20/23 09:48	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc. [1] 13000 West County Road 100 Odessa TX, 79765	Project: West B4 Release Project Number: SRS#2022-053 Project Manager: Joel Lawry
---	---

SHB @ Surface  
3B17014-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P3B1804	02/18/23 09:30	02/20/23 13:13	TPH 8015M	
>C12-C28	34.6	26.9	mg/kg dry	1	P3B1804	02/18/23 09:30	02/20/23 13:13	TPH 8015M	
>C28-C35	27.7	26.9	mg/kg dry	1	P3B1804	02/18/23 09:30	02/20/23 13:13	TPH 8015M	
Surrogate: 1-Chlorooctane	87.1 %	70-130			P3B1804	02/18/23 09:30	02/20/23 13:13	TPH 8015M	
Surrogate: o-Terphenyl	104 %	70-130			P3B1804	02/18/23 09:30	02/20/23 13:13	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	62.3	26.9	mg/kg dry	1	[CALC]	02/18/23 09:30	02/20/23 13:13	calc	

General Chemistry Parameters by EPA / Standard Methods									
% Moisture	7.0	0.1	%	1	P3B2005	02/20/23 09:12	02/20/23 09:48	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc. [1] 13000 West County Road 100 Odessa TX, 79765	Project: West B4 Release Project Number: SRS#2022-053 Project Manager: Joel Lawry
---	---

SHB @ 1.5'  
3B17014-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P3B1804	02/18/23 09:30	02/20/23 13:37	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P3B1804	02/18/23 09:30	02/20/23 13:37	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P3B1804	02/18/23 09:30	02/20/23 13:37	TPH 8015M	
Surrogate: 1-Chlorooctane	82.4 %	70-130			P3B1804	02/18/23 09:30	02/20/23 13:37	TPH 8015M	
Surrogate: o-Terphenyl	98.0 %	70-130			P3B1804	02/18/23 09:30	02/20/23 13:37	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	02/18/23 09:30	02/20/23 13:37	calc	

General Chemistry Parameters by EPA / Standard Methods									
% Moisture	8.0	0.1	%	1	P3B2005	02/20/23 09:12	02/20/23 09:48	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**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
<b>Batch P3B1804 - TX 1005</b>										
<b>Blank (P3B1804-BLK1)</b>				Prepared: 02/18/23 Analyzed: 02/20/23						
C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	86.1		"	100		86.1	70-130			
Surrogate: o-Terphenyl	50.4		"	50.0		101	70-130			
<b>LCS (P3B1804-BS1)</b>				Prepared: 02/18/23 Analyzed: 02/20/23						
C6-C12	854	25.0	mg/kg	1000		85.4	75-125			
>C12-C28	983	25.0	"	1000		98.3	75-125			
Surrogate: 1-Chlorooctane	122		"	100		122	70-130			
Surrogate: o-Terphenyl	61.8		"	50.0		124	70-130			
<b>LCS Dup (P3B1804-BSD1)</b>				Prepared: 02/18/23 Analyzed: 02/20/23						
C6-C12	846	25.0	mg/kg	1000		84.6	75-125	0.883	20	
>C12-C28	974	25.0	"	1000		97.4	75-125	0.951	20	
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	61.0		"	50.0		122	70-130			
<b>Calibration Check (P3B1804-CCV1)</b>				Prepared: 02/18/23 Analyzed: 02/20/23						
C6-C12	465	25.0	mg/kg	500		93.1	85-115			
>C12-C28	466	25.0	"	500		93.3	85-115			
Surrogate: 1-Chlorooctane	101		"	100		101	70-130			
Surrogate: o-Terphenyl	49.6		"	50.0		99.3	70-130			
<b>Calibration Check (P3B1804-CCV2)</b>				Prepared: 02/18/23 Analyzed: 02/20/23						
C6-C12	445	25.0	mg/kg	500		89.0	85-115			
>C12-C28	448	25.0	"	500		89.7	85-115			
Surrogate: 1-Chlorooctane	96.4		"	100		96.4	70-130			
Surrogate: o-Terphenyl	47.8		"	50.0		95.5	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**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
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**Batch P3B1804 - TX 1005**

**Calibration Check (P3B1804-CCV3)**

Prepared: 02/18/23 Analyzed: 02/20/23

C6-C12	444	25.0	mg/kg	500		88.8	85-115			
>C12-C28	456	25.0	"	500		91.2	85-115			
Surrogate: 1-Chlorooctane	97.3		"	100		97.3	70-130			
Surrogate: o-Terphenyl	47.8		"	50.0		95.6	70-130			

**Matrix Spike (P3B1804-MS1)**

Source: 3B14016-21

Prepared: 02/18/23 Analyzed: 02/20/23

C6-C12	696	25.5	mg/kg dry	1020	ND	68.2	75-125			QM-05
>C12-C28	819	25.5	"	1020	ND	80.3	75-125			
Surrogate: 1-Chlorooctane	91.4		"	102		89.6	70-130			
Surrogate: o-Terphenyl	45.2		"	51.0		88.6	70-130			

**Matrix Spike Dup (P3B1804-MSD1)**

Source: 3B14016-21

Prepared: 02/18/23 Analyzed: 02/20/23

C6-C12	696	25.5	mg/kg dry	1020	ND	68.2	75-125	0.0117	20	QM-05
>C12-C28	820	25.5	"	1020	ND	80.3	75-125	0.0436	20	
Surrogate: 1-Chlorooctane	90.9		"	102		89.1	70-130			
Surrogate: o-Terphenyl	46.4		"	51.0		90.9	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**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
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**Batch P3B2005 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3B2005-BLK1)</b>		Prepared & Analyzed: 02/20/23								
% Moisture	ND	0.1	%							
<b>Duplicate (P3B2005-DUP1)</b>		<b>Source: 3B17005-08</b>		Prepared & Analyzed: 02/20/23						
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P3B2005-DUP2)</b>		<b>Source: 3B17005-18</b>		Prepared & Analyzed: 02/20/23						
% Moisture	5.0	0.1	%		5.0			0.00	20	
<b>Duplicate (P3B2005-DUP3)</b>		<b>Source: 3B17008-01</b>		Prepared & Analyzed: 02/20/23						
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P3B2005-DUP4)</b>		<b>Source: 3B17010-05</b>		Prepared & Analyzed: 02/20/23						
% Moisture	11.0	0.1	%		12.0			8.70	20	
<b>Duplicate (P3B2005-DUP5)</b>		<b>Source: 3B17012-03</b>		Prepared & Analyzed: 02/20/23						
% Moisture	9.0	0.1	%		8.0			11.8	20	
<b>Duplicate (P3B2005-DUP6)</b>		<b>Source: 3B17014-05</b>		Prepared & Analyzed: 02/20/23						
% Moisture	8.0	0.1	%		8.0			0.00	20	

**Batch P3B2103 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3B2103-BLK1)</b>		Prepared & Analyzed: 02/21/23								
Chloride	ND	1.00	mg/kg							
<b>LCS (P3B2103-BS1)</b>		Prepared & Analyzed: 02/21/23								
Chloride	20.5		mg/kg	20.0		103	90-110			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**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
<b>Batch P3B2103 - *** DEFAULT PREP ***</b>										
<b>LCS Dup (P3B2103-BSD1)</b>				Prepared & Analyzed: 02/21/23						
Chloride	21.0		mg/kg	20.0		105	90-110	2.47	10	
<b>Calibration Blank (P3B2103-CCB1)</b>				Prepared & Analyzed: 02/21/23						
Chloride	0.00		mg/kg							
<b>Calibration Blank (P3B2103-CCB2)</b>				Prepared & Analyzed: 02/21/23						
Chloride	0.00		mg/kg							
<b>Calibration Check (P3B2103-CCV1)</b>				Prepared & Analyzed: 02/21/23						
Chloride	20.6		mg/kg	20.0		103	90-110			
<b>Calibration Check (P3B2103-CCV2)</b>				Prepared & Analyzed: 02/21/23						
Chloride	21.0		mg/kg	20.0		105	90-110			
<b>Calibration Check (P3B2103-CCV3)</b>				Prepared & Analyzed: 02/21/23						
Chloride	21.2		mg/kg	20.0		106	90-110			
<b>Matrix Spike (P3B2103-MS1)</b>		<b>Source: 3B17009-01</b>		Prepared & Analyzed: 02/21/23						
Chloride	13.0		mg/kg	10000	43.9	NR	80-120			QM-05
<b>Matrix Spike (P3B2103-MS2)</b>		<b>Source: 3B17010-09</b>		Prepared & Analyzed: 02/21/23						
Chloride	17.4		mg/kg	10000	189	NR	80-120			QM-05
<b>Matrix Spike Dup (P3B2103-MSD1)</b>		<b>Source: 3B17009-01</b>		Prepared & Analyzed: 02/21/23						
Chloride	11.8		mg/kg	10000	43.9	NR	80-120	9.20	20	QM-05
<b>Matrix Spike Dup (P3B2103-MSD2)</b>		<b>Source: 3B17010-09</b>		Prepared & Analyzed: 02/21/23						
Chloride	20.4		mg/kg	10000	189	NR	80-120	16.2	20	QM-05

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**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
<b>Batch P3B2202 - *** DEFAULT PREP ***</b>										
<b>Blank (P3B2202-BLK1)</b>				Prepared & Analyzed: 02/22/23						
Chloride	ND	1.00	mg/kg							
<b>LCS (P3B2202-BS1)</b>				Prepared & Analyzed: 02/22/23						
Chloride	20.8		mg/kg	20.0		104	90-110			
<b>LCS Dup (P3B2202-BSD1)</b>				Prepared & Analyzed: 02/22/23						
Chloride	21.1		mg/kg	20.0		106	90-110	1.37	10	
<b>Calibration Blank (P3B2202-CCB1)</b>				Prepared & Analyzed: 02/22/23						
Chloride	-0.185		mg/kg							
<b>Calibration Blank (P3B2202-CCB2)</b>				Prepared & Analyzed: 02/22/23						
Chloride	0.00		mg/kg							
<b>Calibration Check (P3B2202-CCV1)</b>				Prepared & Analyzed: 02/22/23						
Chloride	20.3		mg/kg	20.0		101	90-110			
<b>Calibration Check (P3B2202-CCV2)</b>				Prepared & Analyzed: 02/22/23						
Chloride	21.3		mg/kg	20.0		107	90-110			
<b>Calibration Check (P3B2202-CCV3)</b>				Prepared & Analyzed: 02/22/23						
Chloride	21.1		mg/kg	20.0		106	90-110			
<b>Matrix Spike (P3B2202-MS1)</b>				Prepared & Analyzed: 02/22/23						
Chloride	16000	59.5	mg/kg dry	2980	16900	NR	80-120			QM-05
<b>Matrix Spike (P3B2202-MS2)</b>				Prepared & Analyzed: 02/22/23						
Chloride	4520	28.4	mg/kg dry	1420	2520	141	80-120			QM-05

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]	Project: West B4 Release
13000 West County Road 100	Project Number: SRS#2022-053
Odessa TX, 79765	Project Manager: Joel Lawry

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
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Batch P3B2202 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike Dup (P3B2202-MSD1)	Source: 3B21001-01			Prepared & Analyzed: 02/22/23						
Chloride	16200	59.5	mg/kg dry	2980	16900	NR	80-120	1.40	20	QM-05
Matrix Spike Dup (P3B2202-MSD2)	Source: 3B21001-11			Prepared & Analyzed: 02/22/23						
Chloride	4640	28.4	mg/kg dry	1420	2520	149	80-120	2.54	20	QM-05

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

### Notes and Definitions

ROI Received on Ice

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:



Date:

2/23/2023

Brent Barron, Laboratory Director/Technical Director

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

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

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235





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

Phone: 432-6886-7235

Project Manager: Joel Lowry

Company Name Etech Environmental & Safety Solutions, Inc

Company Address: 2617 West Marland

City/State/Zip: Hobbs, NM 88240

Telephone No: (575) 264-0884

Sampler Signature:

Fax No:

e-mail:

[PM@etechnv.com](mailto:PM@etechnv.com)

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

PO #: SRS-2022-053

Project Loc: 32.85094, -103.85942Project #: 17376

Project Name: West B4 Release

Page 16 of 16

[illegible]

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



# Analytical Report

**Prepared for:**

Joel Lawry  
E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa, TX 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Location: 32.85094,-103.85942  
Lab Order Number: 3B01001



**Current Certification**

Report Date: 02/07/23

E Tech Environmental & Safety Solutions, Inc. [1] 13000 West County Road 100 Odessa TX, 79765	Project: West B4 Release Project Number: SRS#2022-053 Project Manager: Joel Lawry
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EH @ Surface	3B01001-01	Soil	01/26/23 00:00	01-31-2023 12:55
EH @ 1.5'	3B01001-02	Soil	01/26/23 00:00	01-31-2023 12:55
WH @ Surface	3B01001-03	Soil	01/26/23 00:00	01-31-2023 12:55
WH @ 1.5'	3B01001-04	Soil	01/26/23 00:00	01-31-2023 12:55
NH @ Surface	3B01001-05	Soil	01/26/23 00:00	01-31-2023 12:55
NH @ 1.5'	3B01001-06	Soil	01/26/23 00:00	01-31-2023 12:55
SH @ Surface	3B01001-07	Soil	01/26/23 00:00	01-31-2023 12:55
SH @ 1.5'	3B01001-08	Soil	01/26/23 00:00	01-31-2023 12:55

E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**EH @ Surface**  
**3B01001-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00106	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:35	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:35	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:35	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:35	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:35	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	115 %		80-120		P3B0103	02/01/23 11:56	02/01/23 21:35	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	81.6 %		80-120		P3B0103	02/01/23 11:56	02/01/23 21:35	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 04:27	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 04:27	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 04:27	TPH 8015M	
Surrogate: 1-Chlorooctane	101 %		70-130		P3B0306	02/03/23 10:00	02/06/23 04:27	TPH 8015M	
Surrogate: o-Terphenyl	109 %		70-130		P3B0306	02/03/23 10:00	02/06/23 04:27	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 04:27	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	26.7	1.06	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 19:24	EPA 300.0	
% Moisture	6.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**EH @ 1.5'**  
**3B01001-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00111	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:56	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:56	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:56	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:56	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 21:56	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	126 %		80-120		P3B0103	02/01/23 11:56	02/01/23 21:56	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	81.8 %		80-120		P3B0103	02/01/23 11:56	02/01/23 21:56	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 04:49	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 04:49	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 04:49	TPH 8015M	
Surrogate: 1-Chlorooctane	96.3 %		70-130		P3B0306	02/03/23 10:00	02/06/23 04:49	TPH 8015M	
Surrogate: o-Terphenyl	104 %		70-130		P3B0306	02/03/23 10:00	02/06/23 04:49	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 04:49	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	100	1.11	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 19:37	EPA 300.0	
% Moisture	10.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**WH @ Surface**  
**3B01001-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:17	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:17	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:17	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:17	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	118 %		80-120		P3B0103	02/01/23 11:56	02/01/23 22:17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	80.2 %		80-120		P3B0103	02/01/23 11:56	02/01/23 22:17	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 05:10	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 05:10	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 05:10	TPH 8015M	
Surrogate: 1-Chlorooctane	100 %		70-130		P3B0306	02/03/23 10:00	02/06/23 05:10	TPH 8015M	
Surrogate: o-Terphenyl	108 %		70-130		P3B0306	02/03/23 10:00	02/06/23 05:10	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 05:10	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	282	1.12	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 19:51	EPA 300.0	
% Moisture	11.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**WH @ 1.5'**  
**3B01001-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:38	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:38	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:38	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:38	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:38	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	118 %		80-120		P3B0103	02/01/23 11:56	02/01/23 22:38	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	80.0 %		80-120		P3B0103	02/01/23 11:56	02/01/23 22:38	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 05:32	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 05:32	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 05:32	TPH 8015M	
Surrogate: 1-Chlorooctane	94.4 %		70-130		P3B0306	02/03/23 10:00	02/06/23 05:32	TPH 8015M	
Surrogate: o-Terphenyl	101 %		70-130		P3B0306	02/03/23 10:00	02/06/23 05:32	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 05:32	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	1040	1.12	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 20:31	EPA 300.0	
% Moisture	11.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**NH @ Surface**  
**3B01001-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00114	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:59	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:59	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:59	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:59	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 22:59	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	80.2 %		80-120		P3B0103	02/01/23 11:56	02/01/23 22:59	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	109 %		80-120		P3B0103	02/01/23 11:56	02/01/23 22:59	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 06:37	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 06:37	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 06:37	TPH 8015M	
Surrogate: 1-Chlorooctane	96.6 %		70-130		P3B0306	02/03/23 10:00	02/06/23 06:37	TPH 8015M	
Surrogate: o-Terphenyl	106 %		70-130		P3B0306	02/03/23 10:00	02/06/23 06:37	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 06:37	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	13.3	1.14	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 20:44	EPA 300.0	
% Moisture	12.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**NH @ 1.5'**  
**3B01001-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00110	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:21	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:21	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:21	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:21	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:21	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	119 %		80-120		P3B0103	02/01/23 11:56	02/01/23 23:21	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	80.9 %		80-120		P3B0103	02/01/23 11:56	02/01/23 23:21	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.5	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 06:59	TPH 8015M	
>C12-C28	49.1	27.5	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 06:59	TPH 8015M	
>C28-C35	36.8	27.5	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 06:59	TPH 8015M	
Surrogate: 1-Chlorooctane	98.4 %		70-130		P3B0306	02/03/23 10:00	02/06/23 06:59	TPH 8015M	
Surrogate: o-Terphenyl	107 %		70-130		P3B0306	02/03/23 10:00	02/06/23 06:59	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>85.9</b>	27.5	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 06:59	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	28.6	1.10	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 20:57	EPA 300.0	
% Moisture	9.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**SH @ Surface**  
**3B01001-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:42	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:42	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:42	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:42	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P3B0103	02/01/23 11:56	02/01/23 23:42	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	80.9 %		80-120		P3B0103	02/01/23 11:56	02/01/23 23:42	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	118 %		80-120		P3B0103	02/01/23 11:56	02/01/23 23:42	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 07:20	TPH 8015M	
>C12-C28	196	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 07:20	TPH 8015M	
>C28-C35	92.5	28.1	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 07:20	TPH 8015M	
Surrogate: 1-Chlorooctane	101 %		70-130		P3B0306	02/03/23 10:00	02/06/23 07:20	TPH 8015M	
Surrogate: o-Terphenyl	109 %		70-130		P3B0306	02/03/23 10:00	02/06/23 07:20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>288</b>	28.1	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 07:20	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	470	1.12	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 21:37	EPA 300.0	
% Moisture	11.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**SH @ 1.5'**  
**3B01001-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00109	mg/kg dry	1	P3B0103	02/01/23 11:56	02/02/23 00:03	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P3B0103	02/01/23 11:56	02/02/23 00:03	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P3B0103	02/01/23 11:56	02/02/23 00:03	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P3B0103	02/01/23 11:56	02/02/23 00:03	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P3B0103	02/01/23 11:56	02/02/23 00:03	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	80.7 %		80-120		P3B0103	02/01/23 11:56	02/02/23 00:03	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	120 %		80-120		P3B0103	02/01/23 11:56	02/02/23 00:03	EPA 8021B	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.2	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 07:42	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 07:42	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P3B0306	02/03/23 10:00	02/06/23 07:42	TPH 8015M	
Surrogate: 1-Chlorooctane	110 %		70-130		P3B0306	02/03/23 10:00	02/06/23 07:42	TPH 8015M	
Surrogate: o-Terphenyl	120 %		70-130		P3B0306	02/03/23 10:00	02/06/23 07:42	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	02/03/23 10:00	02/06/23 07:42	calc	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	342	1.09	mg/kg dry	1	P3B0311	02/03/23 15:46	02/03/23 21:50	EPA 300.0	
% Moisture	8.0	0.1	%	1	P3B0201	02/02/23 11:00	02/02/23 11:02	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**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
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**Batch P3B0103 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3B0103-BLK1)**

Prepared & Analyzed: 02/01/23

Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0975		"	0.120		81.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.131		"	0.120		109	80-120			

**LCS (P3B0103-BS1)**

Prepared & Analyzed: 02/01/23

Benzene	0.0915	0.00100	mg/kg	0.100		91.5	80-120			
Toluene	0.0811	0.00100	"	0.100		81.1	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.201	0.00200	"	0.200		101	80-120			
Xylene (o)	0.0965	0.00100	"	0.100		96.5	80-120			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		90.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	80-120			

**LCS Dup (P3B0103-BSD1)**

Prepared & Analyzed: 02/01/23

Benzene	0.100	0.00100	mg/kg	0.100		100	80-120	9.17	20	
Toluene	0.0893	0.00100	"	0.100		89.3	80-120	9.67	20	
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120	6.97	20	
Xylene (p/m)	0.212	0.00200	"	0.200		106	80-120	5.22	20	
Xylene (o)	0.106	0.00100	"	0.100		106	80-120	8.97	20	
Surrogate: 1,4-Difluorobenzene	0.109		"	0.120		90.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.142		"	0.120		118	80-120			

**Calibration Blank (P3B0103-CCB1)**

Prepared & Analyzed: 02/01/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.140		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.0965		"	0.120		80.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.134		"	0.120		112	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**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
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**Batch P3B0103 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P3B0103-CCB2)**

Prepared & Analyzed: 02/01/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.180		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.0971		"	0.120		80.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.135		"	0.120		112	80-120			

**Calibration Check (P3B0103-CCV1)**

Prepared & Analyzed: 02/01/23

Benzene	0.0976	0.00100	mg/kg	0.100		97.6	80-120			
Toluene	0.0886	0.00100	"	0.100		88.6	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.215	0.00200	"	0.200		107	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.141		"	0.120		117	75-125			
Surrogate: 1,4-Difluorobenzene	0.107		"	0.120		89.4	75-125			

**Calibration Check (P3B0103-CCV2)**

Prepared & Analyzed: 02/01/23

Benzene	0.109	0.00100	mg/kg	0.100		109	80-120			
Toluene	0.0974	0.00100	"	0.100		97.4	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.225	0.00200	"	0.200		113	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		89.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.153		"	0.120		127	75-125			S-GC

**Calibration Check (P3B0103-CCV3)**

Prepared: 02/01/23 Analyzed: 02/02/23

Benzene	0.115	0.00100	mg/kg	0.100		115	80-120			
Toluene	0.0997	0.00100	"	0.100		99.7	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.221	0.00200	"	0.200		110	80-120			
Xylene (o)	0.117	0.00100	"	0.100		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.107		"	0.120		89.1	75-125			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]	Project: West B4 Release
13000 West County Road 100	Project Number: SRS#2022-053
Odessa TX, 79765	Project Manager: Joel Lawry

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
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Batch P3B0103 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike (P3B0103-MS1)		Source: 3B01001-01		Prepared: 02/01/23		Analyzed: 02/02/23				
Benzene	0.0807	0.00106	mg/kg dry	0.106	ND	75.9	80-120			QM-05
Toluene	0.0611	0.00106	"	0.106	ND	57.4	80-120			QM-05
Ethylbenzene	0.0742	0.00106	"	0.106	ND	69.7	80-120			QM-05
Xylene (p/m)	0.133	0.00213	"	0.213	ND	62.4	80-120			QM-05
Xylene (o)	0.0654	0.00106	"	0.106	ND	61.5	80-120			QM-05
Surrogate: 4-Bromofluorobenzene	0.151		"	0.128		118	80-120			
Surrogate: 1,4-Difluorobenzene	0.112		"	0.128		88.0	80-120			
Matrix Spike Dup (P3B0103-MSD1)		Source: 3B01001-01		Prepared: 02/01/23		Analyzed: 02/02/23				
Benzene	0.0905	0.00106	mg/kg dry	0.106	ND	85.1	80-120	11.5	20	
Toluene	0.0696	0.00106	"	0.106	ND	65.5	80-120	13.1	20	QM-05
Ethylbenzene	0.0854	0.00106	"	0.106	ND	80.3	80-120	14.1	20	
Xylene (p/m)	0.153	0.00213	"	0.213	ND	71.8	80-120	13.9	20	QM-05
Xylene (o)	0.0753	0.00106	"	0.106	ND	70.8	80-120	14.0	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.160		"	0.128		126	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	0.114		"	0.128		89.1	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**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
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**Batch P3B0306 - TX 1005**

**Blank (P3B0306-BLK1)**

Prepared: 02/03/23 Analyzed: 02/06/23

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	55.4		"	50.0		111	70-130			

**LCS (P3B0306-BS1)**

Prepared: 02/03/23 Analyzed: 02/06/23

C6-C12	915	25.0	mg/kg	1000		91.5	75-125			
>C12-C28	891	25.0	"	1000		89.1	75-125			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	60.7		"	50.0		121	70-130			

**LCS Dup (P3B0306-BSD1)**

Prepared: 02/03/23 Analyzed: 02/06/23

C6-C12	921	25.0	mg/kg	1000		92.1	75-125	0.626	20	
>C12-C28	909	25.0	"	1000		90.9	75-125	1.99	20	
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	61.7		"	50.0		123	70-130			

**Calibration Check (P3B0306-CCV1)**

Prepared: 02/03/23 Analyzed: 02/06/23

C6-C12	527	25.0	mg/kg	500		105	85-115			
>C12-C28	506	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	48.3		"	50.0		96.7	70-130			

**Calibration Check (P3B0306-CCV2)**

Prepared: 02/03/23 Analyzed: 02/06/23

C6-C12	532	25.0	mg/kg	500		106	85-115			
>C12-C28	550	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	48.5		"	50.0		97.0	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**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
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**Batch P3B0306 - TX 1005**

**Calibration Check (P3B0306-CCV3)**

Prepared: 02/03/23 Analyzed: 02/06/23

C6-C12	519	25.0	mg/kg	500		104	85-115			
>C12-C28	544	25.0	"	500		109	85-115			
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	48.4		"	50.0		96.8	70-130			

**Duplicate (P3B0306-DUP1)**

Source: 3B01002-01

Prepared: 02/03/23 Analyzed: 02/06/23

C6-C12	189	255	mg/kg dry		215			12.9	20	R3
>C12-C28	4160	255	"		4330			4.04	20	R3
Surrogate: 1-Chlorooctane	98.0		"	102		96.0	70-130			
Surrogate: o-Terphenyl	54.9		"	51.0		108	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



E Tech Environmental & Safety Solutions, Inc. [1]  
 13000 West County Road 100  
 Odessa TX, 79765

Project: West B4 Release  
 Project Number: SRS#2022-053  
 Project Manager: Joel Lawry

**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
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**Batch P3B0201 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3B0201-BLK1)</b>		Prepared & Analyzed: 02/02/23								
% Moisture	ND	0.1	%							
<b>Blank (P3B0201-BLK2)</b>		Prepared & Analyzed: 02/02/23								
% Moisture	ND	0.1	%							
<b>Duplicate (P3B0201-DUP1)</b>		<b>Source: 3A31016-10</b>		Prepared & Analyzed: 02/02/23						
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P3B0201-DUP2)</b>		<b>Source: 3A31016-20</b>		Prepared & Analyzed: 02/02/23						
% Moisture	2.0	0.1	%		3.0			40.0	20	R3
<b>Duplicate (P3B0201-DUP3)</b>		<b>Source: 3A31016-35</b>		Prepared & Analyzed: 02/02/23						
% Moisture	3.0	0.1	%		2.0			40.0	20	R3
<b>Duplicate (P3B0201-DUP4)</b>		<b>Source: 3B01002-01</b>		Prepared & Analyzed: 02/02/23						
% Moisture	2.0	0.1	%		2.0			0.00	20	

**Batch P3B0311 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3B0311-BLK1)</b>		Prepared & Analyzed: 02/03/23								
Chloride	ND	1.00	mg/kg							
<b>LCS (P3B0311-BS1)</b>		Prepared & Analyzed: 02/03/23								
Chloride	21.4		mg/kg	20.0		107	90-110			
<b>LCS Dup (P3B0311-BSD1)</b>		Prepared & Analyzed: 02/03/23								
Chloride	21.6		mg/kg	20.0		108	90-110	0.893	10	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

**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
<b>Batch P3B0311 - *** DEFAULT PREP ***</b>										
<b>Calibration Blank (P3B0311-CCB1)</b>				Prepared & Analyzed: 02/03/23						
Chloride	0.00		mg/kg							
<b>Calibration Blank (P3B0311-CCB2)</b>				Prepared & Analyzed: 02/03/23						
Chloride	0.203		mg/kg							
<b>Calibration Check (P3B0311-CCV1)</b>				Prepared & Analyzed: 02/03/23						
Chloride	21.7		mg/kg	20.0		108	90-110			
<b>Calibration Check (P3B0311-CCV2)</b>				Prepared & Analyzed: 02/03/23						
Chloride	21.7		mg/kg	20.0		108	90-110			
<b>Calibration Check (P3B0311-CCV3)</b>				Prepared & Analyzed: 02/03/23						
Chloride	20.9		mg/kg	20.0		104	90-110			
<b>Matrix Spike (P3B0311-MS1)</b>		<b>Source: 3B03006-01</b>		Prepared & Analyzed: 02/03/23						
Chloride	362	1.08	mg/kg dry	269	120	89.9	80-120			
<b>Matrix Spike (P3B0311-MS2)</b>		<b>Source: 3B01001-06</b>		Prepared & Analyzed: 02/03/23						
Chloride	288	1.10	mg/kg dry	275	28.6	94.3	80-120			
<b>Matrix Spike Dup (P3B0311-MSD1)</b>		<b>Source: 3B03006-01</b>		Prepared & Analyzed: 02/03/23						
Chloride	393	1.08	mg/kg dry	269	120	101	80-120	8.26	20	
<b>Matrix Spike Dup (P3B0311-MSD2)</b>		<b>Source: 3B01001-06</b>		Prepared & Analyzed: 02/03/23						
Chloride	294	1.10	mg/kg dry	275	28.6	96.5	80-120	2.03	20	

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

### 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

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:



Date:

2/7/2023

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc. [1]  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: SRS#2022-053  
Project Manager: Joel Lawry

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Permian Basin Environmental Lab, L.P.

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## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Phone: 432-686-7235

Project Manager: Joel Lowry

**Project Name:** West B4 Release

Company Name Etech Environmental & Safety Solutions, Inc

Project #: 17376

Company Address: 2617 West Marland

**Project Loc:** 32.85094, -103.85942

City/State/Zip: Hobbs, NM 88240

PO #: SRS-2022-053

Telephone No: (575) 264-9884

**Report Format:** ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Joel Lowry

e-mail: [PM@etechnv.com](mailto:PM@etechnv.com)

(lab use only)

ORDER #: 3B01001

[illegible]

**Special Instructions:**  
Please email copy of COC to and results to PM@etecheny.com.

Relinquished by:

Relinquished by: Dee Jones

Date	7/27/22
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Time	2:26
Time	

Received by  
Received by

*[Signature]*

Date	1/27
------	------

Time	2:00
Time	

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
	Y	N

*Received by OCD: 10/2/2023 1:02:01 PM*

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



# Analytical Report

**Prepared for:**

Joel Lowry  
E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa, TX 79765

Project: West B4 Release

Project Number: 17376

Location: None Given

Lab Order Number: 3F01012



**Current Certification**

Report Date: 06/13/23

E Tech Environmental & Safety Solutions, Inc.	Project: West B4 Release
13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG1 @ 6"	3F01012-01	Soil	05/26/23 00:00	06-01-2023 16:19
BG2 @ 6"	3F01012-02	Soil	05/26/23 00:00	06-01-2023 16:19
BG3 @ 6"	3F01012-03	Soil	05/26/23 00:00	06-01-2023 16:19
BG4 @ 6"	3F01012-04	Soil	05/26/23 00:00	06-01-2023 16:19

E Tech Environmental & Safety Solutions, Inc.	Project: West B4 Release
13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

BG1 @ 6"  
3F01012-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEx by 8021B									
Benzene	0.00159	0.00103	mg/kg dry	1	P3F0610	06/06/23 14:22	06/07/23 19:07	EPA 8021B	
Toluene	0.264	0.0206	mg/kg dry	20	P3F0610	06/06/23 14:22	06/08/23 10:32	EPA 8021B	
Ethylbenzene	1.93	0.0206	mg/kg dry	20	P3F0610	06/06/23 14:22	06/08/23 10:32	EPA 8021B	
Xylene (p/m)	6.55	0.0412	mg/kg dry	20	P3F0610	06/06/23 14:22	06/08/23 10:32	EPA 8021B	
Xylene (o)	2.91	0.0206	mg/kg dry	20	P3F0610	06/06/23 14:22	06/08/23 10:32	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	116 %	80-120			P3F0610	06/06/23 14:22	06/08/23 10:32	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	97.1 %	80-120			P3F0610	06/06/23 14:22	06/08/23 10:32	EPA 8021B	
Organics by GC									
Gasoline Range Organics	2820	515	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 20:19	EPA 8015M	
Diesel Range Organics	32200	515	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 20:19	EPA 8015M	
Oil Range Organics	5340	515	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 20:19	EPA 8015M	
Surrogate: 1-Chlorooctane	94.0 %	70-130			P3F0205	06/02/23 13:09	06/02/23 20:19	EPA 8015M	
Surrogate: o-Terphenyl	114 %	70-130			P3F0205	06/02/23 13:09	06/02/23 20:19	EPA 8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	824	1.03	mg/kg dry	1	P3F0612	06/06/23 12:00	06/07/23 08:58	EPA 300.0	
% Moisture	3.0	0.1	%	1	P3F0504	06/05/23 08:17	06/05/23 08:20	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.	Project: West B4 Release
13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

BG2 @ 6"  
3F01012-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P3F0804	06/08/23 11:09	06/09/23 01:54	EPA 8021B	
Toluene	0.347	0.0208	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:10	EPA 8021B	
Ethylbenzene	2.44	0.0208	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:10	EPA 8021B	
Xylene (p/m)	8.11	0.0417	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:10	EPA 8021B	
Xylene (o)	3.72	0.0208	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:10	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	93.4 %		80-120		P3F0804	06/08/23 11:09	06/09/23 12:10	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	112 %		80-120		P3F0804	06/08/23 11:09	06/09/23 12:10	EPA 8021B	

Organics by GC

Gasoline Range Organics	2940	521	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 20:45	EPA 8015M	
Diesel Range Organics	30900	521	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 20:45	EPA 8015M	
Oil Range Organics	5080	521	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 20:45	EPA 8015M	
Surrogate: 1-Chlorooctane	90.4 %		70-130		P3F0205	06/02/23 13:09	06/02/23 20:45	EPA 8015M	
Surrogate: o-Terphenyl	103 %		70-130		P3F0205	06/02/23 13:09	06/02/23 20:45	EPA 8015M	

General Chemistry Parameters by EPA / Standard Methods

Chloride	572	1.04	mg/kg dry	1	P3F0612	06/06/23 12:00	06/07/23 09:12	EPA 300.0	
% Moisture	4.0	0.1	%	1	P3F0504	06/05/23 08:17	06/05/23 08:20	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**BG3 @ 6"**  
**3F01012-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00103	mg/kg dry	1	P3F0804	06/08/23 11:09	06/09/23 02:16	EPA 8021B	
Toluene	0.270	0.0206	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:31	EPA 8021B	
Ethylbenzene	1.89	0.0206	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:31	EPA 8021B	
Xylene (p/m)	6.40	0.0412	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:31	EPA 8021B	
Xylene (o)	2.84	0.0206	mg/kg dry	20	P3F0804	06/08/23 11:09	06/09/23 12:31	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	95.0 %		80-120		P3F0804	06/08/23 11:09	06/09/23 12:31	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	112 %		80-120		P3F0804	06/08/23 11:09	06/09/23 12:31	EPA 8021B	

**Organics by GC**

Gasoline Range Organics	2730	515	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 21:10	EPA 8015M	
Diesel Range Organics	29800	515	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 21:10	EPA 8015M	
Oil Range Organics	5000	515	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 21:10	EPA 8015M	
Surrogate: 1-Chlorooctane	92.6 %		70-130		P3F0205	06/02/23 13:09	06/02/23 21:10	EPA 8015M	
Surrogate: o-Terphenyl	106 %		70-130		P3F0205	06/02/23 13:09	06/02/23 21:10	EPA 8015M	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	813	1.03	mg/kg dry	1	P3F0612	06/06/23 12:00	06/07/23 09:26	EPA 300.0	
% Moisture	3.0	0.1	%	1	P3F0504	06/05/23 08:17	06/05/23 08:20	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**BG4 @ 6"**  
**3F01012-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0166</b>	0.00104	mg/kg dry	1	P3F0804	06/08/23 11:09	06/09/23 02:37	EPA 8021B	
<b>Toluene</b>	<b>0.165</b>	0.00104	mg/kg dry	1	P3F0804	06/08/23 11:09	06/09/23 02:37	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.171</b>	0.00104	mg/kg dry	1	P3F0804	06/08/23 11:09	06/09/23 02:37	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.648</b>	0.00208	mg/kg dry	1	P3F0804	06/08/23 11:09	06/09/23 02:37	EPA 8021B	
<b>Xylene (o)</b>	<b>0.398</b>	0.00104	mg/kg dry	1	P3F0804	06/08/23 11:09	06/09/23 02:37	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	85.7 %		80-120		P3F0804	06/08/23 11:09	06/09/23 02:37	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	896 %		80-120		P3F0804	06/08/23 11:09	06/09/23 02:37	EPA 8021B	S-GC

**Organics by GC**

<b>Gasoline Range Organics</b>	<b>2650</b>	521	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 21:35	EPA 8015M	
<b>Diesel Range Organics</b>	<b>23300</b>	521	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 21:35	EPA 8015M	
<b>Oil Range Organics</b>	<b>4120</b>	521	mg/kg dry	20	P3F0205	06/02/23 13:09	06/02/23 21:35	EPA 8015M	
Surrogate: 1-Chlorooctane	93.6 %		70-130		P3F0205	06/02/23 13:09	06/02/23 21:35	EPA 8015M	
Surrogate: o-Terphenyl	96.4 %		70-130		P3F0205	06/02/23 13:09	06/02/23 21:35	EPA 8015M	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>3010</b>	10.4	mg/kg dry	10	P3F0612	06/06/23 12:00	06/07/23 09:41	EPA 300.0	
<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	P3F0504	06/05/23 08:17	06/05/23 08:20	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0610 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3F0610-BLK1)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.5	80-120			

**LCS (P3F0610-BS1)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.111	0.00100	mg/kg	0.100		111	80-120			
Toluene	0.101	0.00100	"	0.100		101	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.179	0.00200	"	0.200		89.5	80-120			
Xylene (o)	0.0891	0.00100	"	0.100		89.1	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.120		"	0.120		99.8	80-120			

**LCS Dup (P3F0610-BSD1)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.0972	0.00100	mg/kg	0.100		97.2	80-120	13.4	20	
Toluene	0.0906	0.00100	"	0.100		90.6	80-120	11.2	20	
Ethylbenzene	0.0907	0.00100	"	0.100		90.7	80-120	11.4	20	
Xylene (p/m)	0.164	0.00200	"	0.200		82.0	80-120	8.79	20	
Xylene (o)	0.0813	0.00100	"	0.100		81.3	80-120	9.19	20	
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.126		"	0.120		105	80-120			

**Calibration Blank (P3F0610-CCB1)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.6	80-120			

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Project Manager: Joel Lowry

**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
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**Batch P3F0610 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P3F0610-CCB2)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.190		"							
Xylene (p/m)	0.190		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		94.6	80-120			

**Calibration Check (P3F0610-CCV1)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.114	0.00100	mg/kg	0.100		114	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120			
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120			
Xylene (o)	0.0987	0.00100	"	0.100		98.7	80-120			
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		104	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.1	75-125			

**Calibration Check (P3F0610-CCV2)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.107	0.00100	mg/kg	0.100		107	80-120			
Toluene	0.0988	0.00100	"	0.100		98.8	80-120			
Ethylbenzene	0.0934	0.00100	"	0.100		93.4	80-120			
Xylene (p/m)	0.172	0.00200	"	0.200		85.9	80-120			
Xylene (o)	0.0865	0.00100	"	0.100		86.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		99.9	75-125			

**Calibration Check (P3F0610-CCV3)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.111	0.00100	mg/kg	0.100		111	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.0996	0.00100	"	0.100		99.6	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.5	80-120			
Xylene (o)	0.0939	0.00100	"	0.100		93.9	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		97.1	75-125			
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		99.6	75-125			

Permian Basin Environmental Lab, L.P.

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Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0610 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike (P3F0610-MS1)</b>		<b>Source: 3F02005-08</b>		<b>Prepared: 06/06/23 Analyzed: 06/07/23</b>						
Benzene	0.0161	0.00104	mg/kg dry	0.104	ND	15.5	80-120			QM-05
Toluene	0.00200	0.00104	"	0.104	ND	1.92	80-120			QM-05
Ethylbenzene	0.00166	0.00104	"	0.104	ND	1.59	80-120			QM-05
Xylene (p/m)	0.0221	0.00208	"	0.208	ND	10.6	80-120			QM-05
Xylene (o)	0.0218	0.00104	"	0.104	ND	20.9	80-120			QM-05
Surrogate: 4-Bromofluorobenzene	0.107		"	0.125		85.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.125		94.4	80-120			

<b>Matrix Spike Dup (P3F0610-MSD1)</b>		<b>Source: 3F02005-08</b>		<b>Prepared: 06/06/23 Analyzed: 06/07/23</b>						
Benzene	0.0165	0.00104	mg/kg dry	0.104	ND	15.8	80-120	2.17	20	QM-05
Toluene	0.00297	0.00104	"	0.104	ND	2.85	80-120	39.0	20	QM-05
Ethylbenzene	0.00253	0.00104	"	0.104	ND	2.43	80-120	41.8	20	QM-05
Xylene (p/m)	0.0219	0.00208	"	0.208	ND	10.5	80-120	0.995	20	QM-05
Xylene (o)	0.0238	0.00104	"	0.104	ND	22.9	80-120	8.95	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.109		"	0.125		87.0	80-120			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.125		97.6	80-120			

**Batch P3F0804 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3F0804-BLK1)</b>				<b>Prepared: 06/08/23 Analyzed: 06/09/23</b>						
Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.8	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.7	80-120			

Permian Basin Environmental Lab, L.P.

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Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0804 - \*\*\* DEFAULT PREP \*\*\***

**LCS (P3F0804-BS1)**

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.118	0.00100	mg/kg	0.100		118	80-120			
Toluene	0.117	0.00100	"	0.100		117	80-120			
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120			
Xylene (p/m)	0.228	0.00200	"	0.200		114	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		93.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.124		"	0.120		104	80-120			

**LCS Dup (P3F0804-BSD1)**

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.106	0.00100	mg/kg	0.100		106	80-120	10.5	20	
Toluene	0.102	0.00100	"	0.100		102	80-120	13.0	20	
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120	7.78	20	
Xylene (p/m)	0.200	0.00200	"	0.200		100	80-120	13.0	20	
Xylene (o)	0.0904	0.00100	"	0.100		90.4	80-120	14.3	20	
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.124		"	0.120		103	80-120			

**Calibration Blank (P3F0804-CCB1)**

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.100		"							
Xylene (p/m)	0.200		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.9	80-120			

**Calibration Blank (P3F0804-CCB2)**

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.180		"							
Xylene (p/m)	0.460		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		104	80-120			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.1	80-120			

Permian Basin Environmental Lab, L.P.

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13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0804 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P3F0804-CCV1)**

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.105	0.00100	mg/kg	0.100		105	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.203	0.00200	"	0.200		101	80-120			
Xylene (o)	0.0933	0.00100	"	0.100		93.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		102	75-125			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.7	75-125			

**Calibration Check (P3F0804-CCV2)**

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.106	0.00100	mg/kg	0.100		106	80-120			
Toluene	0.106	0.00100	"	0.100		106	80-120			
Ethylbenzene	0.108	0.00100	"	0.100		108	80-120			
Xylene (p/m)	0.203	0.00200	"	0.200		102	80-120			
Xylene (o)	0.0986	0.00100	"	0.100		98.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.130		"	0.120		108	75-125			

**Calibration Check (P3F0804-CCV3)**

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.111	0.00100	mg/kg	0.100		111	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.213	0.00200	"	0.200		106	80-120			
Xylene (o)	0.103	0.00100	"	0.100		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.130		"	0.120		108	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		96.0	75-125			

**Matrix Spike (P3F0804-MS1)**

Source: 3F01015-01

Prepared: 06/08/23 Analyzed: 06/09/23

Benzene	0.114	0.00116	mg/kg dry	0.116	ND	97.8	80-120			
Toluene	0.109	0.00116	"	0.116	ND	93.9	80-120			
Ethylbenzene	0.109	0.00116	"	0.116	ND	94.1	80-120			
Xylene (p/m)	0.200	0.00233	"	0.233	ND	86.2	80-120			
Xylene (o)	0.0959	0.00116	"	0.116	ND	82.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.160		"	0.140		115	80-120			
Surrogate: 1,4-Difluorobenzene	0.138		"	0.140		98.8	80-120			

Permian Basin Environmental Lab, L.P.

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13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

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
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Batch P3F0804 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike Dup (P3F0804-MSD1)	Source: 3F01015-01			Prepared: 06/08/23		Analyzed: 06/09/23				
Benzene	0.116	0.00116	mg/kg dry	0.116	ND	99.7	80-120	1.95	20	
Toluene	0.112	0.00116	"	0.116	ND	96.1	80-120	2.33	20	
Ethylbenzene	0.112	0.00116	"	0.116	ND	96.2	80-120	2.24	20	
Xylene (p/m)	0.207	0.00233	"	0.233	ND	89.1	80-120	3.30	20	
Xylene (o)	0.0979	0.00116	"	0.116	ND	84.2	80-120	1.98	20	
Surrogate: 4-Bromofluorobenzene	0.159		"	0.140		114	80-120			
Surrogate: 1,4-Difluorobenzene	0.137		"	0.140		98.5	80-120			

Permian Basin Environmental Lab, L.P.

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Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P3F0205 - TX 1005**

**Blank (P3F0205-BLK1)**

Prepared & Analyzed: 06/02/23

Gasoline Range Organics	ND	25.0	mg/kg							
Diesel Range Organics	ND	25.0	"							
Oil Range Organics	ND	25.0	"							
Surrogate: 1-Chlorooctane	91.4		"	100		91.4	70-130			
Surrogate: o-Terphenyl	47.7		"	50.0		95.4	70-130			

**LCS (P3F0205-BS1)**

Prepared & Analyzed: 06/02/23

Gasoline Range Organics	1170	25.0	mg/kg				75-125			
Diesel Range Organics	1160	25.0	"	1000		116	75-125			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	49.2		"	50.0		98.4	70-130			

**LCS Dup (P3F0205-BS1)**

Prepared & Analyzed: 06/02/23

Gasoline Range Organics	1140	25.0	mg/kg				75-125		20	
Diesel Range Organics	1160	25.0	"	1000		116	75-125	0.0674	20	
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	50.2		"	50.0		100	70-130			

**Calibration Check (P3F0205-CCV1)**

Prepared & Analyzed: 06/02/23

Gasoline Range Organics	462	25.0	mg/kg	500		92.3	85-115			
Diesel Range Organics	454	25.0	"	500		90.9	85-115			
Surrogate: 1-Chlorooctane	105		"	100		105	85-115			
Surrogate: o-Terphenyl	47.3		"	50.0		94.5	85-115			

**Calibration Check (P3F0205-CCV2)**

Prepared & Analyzed: 06/02/23

Gasoline Range Organics	464	25.0	mg/kg	500		92.7	85-115			
Diesel Range Organics	436	25.0	"	500		87.2	85-115			
Surrogate: 1-Chlorooctane	105		"	100		105	85-115			
Surrogate: o-Terphenyl	47.7		"	50.0		95.4	85-115			

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13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3F0205 - TX 1005

Calibration Check (P3F0205-CCV3)	Prepared: 06/02/23 Analyzed: 06/03/23									
Gasoline Range Organics	471	25.0	mg/kg	500		94.1	85-115			
Diesel Range Organics	465	25.0	"	500		93.0	85-115			
Surrogate: 1-Chlorooctane	106		"	100		106	85-115			
Surrogate: o-Terphenyl	48.8		"	50.0		97.7	85-115			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0504 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3F0504-BLK1)</b>		Prepared & Analyzed: 06/05/23							
% Moisture	ND	0.1	%						
<b>Blank (P3F0504-BLK2)</b>		Prepared & Analyzed: 06/05/23							
% Moisture	1.0	0.1	%						
<b>Duplicate (P3F0504-DUP1)</b>		<b>Source: 3F02002-02</b>		Prepared & Analyzed: 06/05/23					
% Moisture	10.0	0.1	%		10.0			0.00	20
<b>Duplicate (P3F0504-DUP2)</b>		<b>Source: 3F02005-04</b>		Prepared & Analyzed: 06/05/23					
% Moisture	5.0	0.1	%		6.0			18.2	20
<b>Duplicate (P3F0504-DUP3)</b>		<b>Source: 3F02005-19</b>		Prepared & Analyzed: 06/05/23					
% Moisture	5.0	0.1	%		5.0			0.00	20
<b>Duplicate (P3F0504-DUP4)</b>		<b>Source: 3F02006-08</b>		Prepared & Analyzed: 06/05/23					
% Moisture	4.0	0.1	%		3.0			28.6	20
									R3

**Batch P3F0612 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3F0612-BLK1)</b>		Prepared: 06/06/23 Analyzed: 06/07/23							
Chloride	ND	1.00	mg/kg						
<b>LCS (P3F0612-BS1)</b>		Prepared: 06/06/23 Analyzed: 06/07/23							
Chloride	19.5		mg/kg	20.0		97.3	90-110		
<b>LCS Dup (P3F0612-BSD1)</b>		Prepared: 06/06/23 Analyzed: 06/07/23							
Chloride	19.5		mg/kg	20.0		97.3	90-110	0.0360	10

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0612 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P3F0612-CCV1)**

Prepared: 06/06/23 Analyzed: 06/07/23

Chloride	20.0		mg/kg	20.0		100	90-110			
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**Calibration Check (P3F0612-CCV2)**

Prepared: 06/06/23 Analyzed: 06/07/23

Chloride	19.1		mg/kg	20.0		95.3	90-110			
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**Calibration Check (P3F0612-CCV3)**

Prepared: 06/06/23 Analyzed: 06/07/23

Chloride	19.1		mg/kg	20.0		95.3	90-110			
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**Matrix Spike (P3F0612-MS1)**

Source: 3F05005-23

Prepared: 06/06/23 Analyzed: 06/07/23

Chloride	121		mg/kg	100	20.0	101	80-120			
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**Matrix Spike (P3F0612-MS2)**

Source: 3F02004-04

Prepared: 06/06/23 Analyzed: 06/07/23

Chloride	127		mg/kg	100	31.4	95.6	80-120			
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**Matrix Spike Dup (P3F0612-MSD1)**

Source: 3F05005-23

Prepared: 06/06/23 Analyzed: 06/07/23

Chloride	120		mg/kg	100	20.0	99.9	80-120	0.950	20	
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**Matrix Spike Dup (P3F0612-MSD2)**

Source: 3F02004-04

Prepared: 06/06/23 Analyzed: 06/07/23

Chloride	128		mg/kg	100	31.4	96.6	80-120	0.763	20	
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Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

### 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

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:



Date:

6/13/2023

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

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

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235





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



# Analytical Report

**Prepared for:**

Joel Lowry  
E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa, TX 79765

Project: West B4 Release

Project Number: 17376

Location: None Given

Lab Order Number: 3F01013



**Current Certification**

Report Date: 06/12/23

E Tech Environmental & Safety Solutions, Inc.	Project: West B4 Release
13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
V1 @ 6'	3F01013-01	Soil	05/26/23 00:00	06-01-2023 16:32
V1 @ 7'	3F01013-02	Soil	05/26/23 00:00	06-01-2023 16:32

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**V1 @ 6'**  
**3F01013-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00106	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:05	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:05	EPA 8021B	
Ethylbenzene	0.0123	0.00106	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:05	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:05	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:05	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	82.7 %		80-120		P3F0609	06/06/23 11:53	06/06/23 19:05	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	103 %		80-120		P3F0609	06/06/23 11:53	06/06/23 19:05	EPA 8021B	

**Organics by GC**

Gasoline Range Organics	33.4	26.6	mg/kg dry	1	P3F0205	06/02/23 13:09	06/04/23 17:15	EPA 8015M	
Diesel Range Organics	1090	26.6	mg/kg dry	1	P3F0205	06/02/23 13:09	06/04/23 17:15	EPA 8015M	
Oil Range Organics	474	26.6	mg/kg dry	1	P3F0205	06/02/23 13:09	06/04/23 17:15	EPA 8015M	
Surrogate: 1-Chlorooctane	89.8 %		70-130		P3F0205	06/02/23 13:09	06/04/23 17:15	EPA 8015M	
Surrogate: o-Terphenyl	94.5 %		70-130		P3F0205	06/02/23 13:09	06/04/23 17:15	EPA 8015M	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	32.3	1.06	mg/kg dry	1	P3F0203	06/02/23 11:18	06/05/23 15:58	EPA 300.0	
% Moisture	6.0	0.1	%	1	P3F0201	06/02/23 09:20	06/02/23 09:36	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**V1 @ 7'**  
**3F01013-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00105	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:25	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:25	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:25	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:25	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P3F0609	06/06/23 11:53	06/06/23 19:25	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	81.3 %		80-120		P3F0609	06/06/23 11:53	06/06/23 19:25	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	102 %		80-120		P3F0609	06/06/23 11:53	06/06/23 19:25	EPA 8021B	

**Organics by GC**

Gasoline Range Organics	ND	26.3	mg/kg dry	1	P3F0205	06/02/23 13:09	06/04/23 17:40	EPA 8015M	
Diesel Range Organics	1660	26.3	mg/kg dry	1	P3F0205	06/02/23 13:09	06/04/23 17:40	EPA 8015M	
Oil Range Organics	676	26.3	mg/kg dry	1	P3F0205	06/02/23 13:09	06/04/23 17:40	EPA 8015M	
Surrogate: 1-Chlorooctane	85.3 %		70-130		P3F0205	06/02/23 13:09	06/04/23 17:40	EPA 8015M	
Surrogate: o-Terphenyl	95.0 %		70-130		P3F0205	06/02/23 13:09	06/04/23 17:40	EPA 8015M	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	14.2	1.05	mg/kg dry	1	P3F0203	06/02/23 11:18	06/05/23 16:12	EPA 300.0	
% Moisture	5.0	0.1	%	1	P3F0201	06/02/23 09:20	06/02/23 09:36	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0609 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3F0609-BLK1)**

Prepared & Analyzed: 06/06/23

Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.8	80-120			

**LCS (P3F0609-BS1)**

Prepared & Analyzed: 06/06/23

Benzene	0.116	0.00100	mg/kg	0.100		116	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.117	0.00100	"	0.100		117	80-120			
Xylene (p/m)	0.216	0.00200	"	0.200		108	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.5	80-120			

**LCS Dup (P3F0609-BSD1)**

Prepared & Analyzed: 06/06/23

Benzene	0.111	0.00100	mg/kg	0.100		111	80-120	4.31	20	
Toluene	0.107	0.00100	"	0.100		107	80-120	3.35	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120	2.66	20	
Xylene (p/m)	0.211	0.00200	"	0.200		105	80-120	2.27	20	
Xylene (o)	0.0994	0.00100	"	0.100		99.4	80-120	2.41	20	
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.129		"	0.120		107	80-120			

**Calibration Blank (P3F0609-CCB1)**

Prepared & Analyzed: 06/06/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.190		"							
Xylene (p/m)	0.280		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.6	80-120			

Permian Basin Environmental Lab, L.P.

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13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
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**Batch P3F0609 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P3F0609-CCB2)**

Prepared & Analyzed: 06/06/23

Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.200		"							
Xylene (p/m)	0.200		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		90.1	80-120			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.7	80-120			

**Calibration Check (P3F0609-CCV1)**

Prepared & Analyzed: 06/06/23

Benzene	0.0992	0.00100	mg/kg	0.100		99.2	80-120			
Toluene	0.0974	0.00100	"	0.100		97.4	80-120			
Ethylbenzene	0.0985	0.00100	"	0.100		98.5	80-120			
Xylene (p/m)	0.192	0.00200	"	0.200		96.1	80-120			
Xylene (o)	0.0912	0.00100	"	0.100		91.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		104	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.6	75-125			

**Calibration Check (P3F0609-CCV2)**

Prepared & Analyzed: 06/06/23

Benzene	0.113	0.00100	mg/kg	0.100		113	80-120			
Toluene	0.102	0.00100	"	0.100		102	80-120			
Ethylbenzene	0.100	0.00100	"	0.100		100	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		97.1	80-120			
Xylene (o)	0.0972	0.00100	"	0.100		97.2	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		97.0	75-125			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		94.7	75-125			

**Calibration Check (P3F0609-CCV3)**

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.114	0.00100	mg/kg	0.100		114	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120			
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120			
Xylene (o)	0.0987	0.00100	"	0.100		98.7	80-120			
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		104	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.1	75-125			

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.	Project: West B4 Release
13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

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
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Batch P3F0609 - \*\*\* DEFAULT PREP \*\*\*

Matrix Spike (P3F0609-MS1)	Source: 3F06007-01			Prepared: 06/06/23		Analyzed: 06/07/23				
Benzene	0.0987	0.00102	mg/kg dry	0.102	ND	96.8	80-120			
Toluene	0.0848	0.00102	"	0.102	ND	83.1	80-120			
Ethylbenzene	0.0853	0.00102	"	0.102	ND	83.6	80-120			
Xylene (p/m)	0.150	0.00204	"	0.204	ND	73.5	80-120			QM-05
Xylene (o)	0.0781	0.00102	"	0.102	ND	76.5	80-120			QM-05
Surrogate: 4-Bromofluorobenzene	0.123		"	0.122		101	80-120			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.122		99.2	80-120			

Matrix Spike Dup (P3F0609-MSD1)	Source: 3F06007-01			Prepared: 06/06/23		Analyzed: 06/07/23				
Benzene	0.108	0.00102	mg/kg dry	0.102	ND	106	80-120	8.84	20	
Toluene	0.0983	0.00102	"	0.102	ND	96.3	80-120	14.7	20	
Ethylbenzene	0.0994	0.00102	"	0.102	ND	97.4	80-120	15.3	20	
Xylene (p/m)	0.180	0.00204	"	0.204	ND	88.1	80-120	18.1	20	
Xylene (o)	0.0871	0.00102	"	0.102	ND	85.4	80-120	10.9	20	
Surrogate: 4-Bromofluorobenzene	0.129		"	0.122		105	80-120			
Surrogate: 1,4-Difluorobenzene	0.120		"	0.122		97.9	80-120			

E Tech Environmental & Safety Solutions, Inc.	Project: West B4 Release
13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

Organics by GC - Quality Control  
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3F0205 - TX 1005										
Blank (P3F0205-BLK1) Prepared & Analyzed: 06/02/23										
Gasoline Range Organics	ND	25.0	mg/kg							
Diesel Range Organics	ND	25.0	"							
Oil Range Organics	ND	25.0	"							
Surrogate: 1-Chlorooctane	91.4		"	100		91.4	70-130			
Surrogate: o-Terphenyl	47.7		"	50.0		95.4	70-130			
LCS (P3F0205-BS1) Prepared & Analyzed: 06/02/23										
Gasoline Range Organics	1170	25.0	mg/kg				75-125			
Diesel Range Organics	1160	25.0	"	1000		116	75-125			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	49.2		"	50.0		98.4	70-130			
LCS Dup (P3F0205-BS1) Prepared & Analyzed: 06/02/23										
Gasoline Range Organics	1140	25.0	mg/kg				75-125		20	
Diesel Range Organics	1160	25.0	"	1000		116	75-125	0.0674	20	
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	50.2		"	50.0		100	70-130			
Calibration Check (P3F0205-CCV1) Prepared & Analyzed: 06/02/23										
Gasoline Range Organics	462	25.0	mg/kg	500		92.3	85-115			
Diesel Range Organics	454	25.0	"	500		90.9	85-115			
Surrogate: 1-Chlorooctane	105		"	100		105	85-115			
Surrogate: o-Terphenyl	47.3		"	50.0		94.5	85-115			
Calibration Check (P3F0205-CCV2) Prepared & Analyzed: 06/02/23										
Gasoline Range Organics	464	25.0	mg/kg	500		92.7	85-115			
Diesel Range Organics	436	25.0	"	500		87.2	85-115			
Surrogate: 1-Chlorooctane	105		"	100		105	85-115			
Surrogate: o-Terphenyl	47.7		"	50.0		95.4	85-115			

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.	Project: West B4 Release
13000 West County Road 100	Project Number: 17376
Odessa TX, 79765	Project Manager: Joel Lowry

Organics by GC - Quality Control  
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3F0205 - TX 1005

Calibration Check (P3F0205-CCV3)	Prepared: 06/02/23 Analyzed: 06/03/23									
Gasoline Range Organics	471	25.0	mg/kg	500		94.1	85-115			
Diesel Range Organics	465	25.0	"	500		93.0	85-115			
Surrogate: 1-Chlorooctane	106		"	100		106	85-115			
Surrogate: o-Terphenyl	48.8		"	50.0		97.7	85-115			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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 P3F0201 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3F0201-BLK1)**

Prepared & Analyzed: 06/02/23

% Moisture ND 0.1 %

**Blank (P3F0201-BLK2)**

Prepared & Analyzed: 06/02/23

% Moisture ND 0.1 %

**Blank (P3F0201-BLK3)**

Prepared & Analyzed: 06/02/23

% Moisture ND 0.1 %

**Blank (P3F0201-BLK4)**

Prepared & Analyzed: 06/02/23

% Moisture ND 0.1 %

**Blank (P3F0201-BLK5)**

Prepared & Analyzed: 06/02/23

% Moisture ND 0.1 %

**Duplicate (P3F0201-DUP1)**

Source: 3E31009-10

Prepared & Analyzed: 06/02/23

% Moisture 4.0 0.1 % 4.0 0.00 20

**Duplicate (P3F0201-DUP2)**

Source: 3E31009-20

Prepared & Analyzed: 06/02/23

% Moisture 6.0 0.1 % 7.0 15.4 20

**Duplicate (P3F0201-DUP3)**

Source: 3E31009-35

Prepared & Analyzed: 06/02/23

% Moisture 10.0 0.1 % 10.0 0.00 20

**Duplicate (P3F0201-DUP4)**

Source: 3E31009-45

Prepared & Analyzed: 06/02/23

% Moisture 12.0 0.1 % 11.0 8.70 20

**Duplicate (P3F0201-DUP5)**

Source: 3F01005-02

Prepared & Analyzed: 06/02/23

% Moisture 9.0 0.1 % 9.0 0.00 20

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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 P3F0201 - \*\*\* DEFAULT PREP \*\*\***

<b>Duplicate (P3F0201-DUP6)</b>	<b>Source: 3F01006-01</b>		Prepared & Analyzed: 06/02/23							
% Moisture	10.0	0.1	%		11.0			9.52	20	
<b>Duplicate (P3F0201-DUP7)</b>	<b>Source: 3F01006-16</b>		Prepared & Analyzed: 06/02/23							
% Moisture	9.0	0.1	%		11.0			20.0	20	
<b>Duplicate (P3F0201-DUP8)</b>	<b>Source: 3F01009-05</b>		Prepared & Analyzed: 06/02/23							
% Moisture	6.0	0.1	%		7.0			15.4	20	
<b>Duplicate (P3F0201-DUP9)</b>	<b>Source: 3F01010-10</b>		Prepared & Analyzed: 06/02/23							
% Moisture	2.0	0.1	%		3.0			40.0	20	R3
<b>Duplicate (P3F0201-DUPA)</b>	<b>Source: 3F01013-01</b>		Prepared & Analyzed: 06/02/23							
% Moisture	6.0	0.1	%		6.0			0.00	20	

**Batch P3F0203 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P3F0203-BLK1)</b>	Prepared: 06/02/23 Analyzed: 06/03/23									
Chloride	ND	1.00	mg/kg							
<b>LCS (P3F0203-BS1)</b>	Prepared: 06/02/23 Analyzed: 06/04/23									
Chloride	19.2		mg/kg	20.0	96.2	90-110				
<b>LCS Dup (P3F0203-BSD1)</b>	Prepared: 06/02/23 Analyzed: 06/04/23									
Chloride	19.4		mg/kg	20.0	97.1	90-110	0.890	10		
<b>Calibration Check (P3F0203-CCV1)</b>	Prepared: 06/02/23 Analyzed: 06/04/23									
Chloride	19.8		mg/kg	20.0	98.9	90-110				

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

**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
<b>Batch P3F0203 - *** DEFAULT PREP ***</b>										
<b>Calibration Check (P3F0203-CCV2)</b>				Prepared: 06/02/23 Analyzed: 06/04/23						
Chloride	19.7		mg/kg	20.0		98.5	90-110			
<b>Calibration Check (P3F0203-CCV3)</b>				Prepared: 06/02/23 Analyzed: 06/04/23						
Chloride	19.7		mg/kg	20.0		98.7	90-110			
<b>Matrix Spike (P3F0203-MS1)</b>				<b>Source: 3E31009-29</b>		Prepared: 06/02/23 Analyzed: 06/03/23				
Chloride	30.0		mg/kg	100	38.8	NR	80-120			QM-05
<b>Matrix Spike (P3F0203-MS2)</b>				<b>Source: 3F01007-01</b>		Prepared: 06/02/23 Analyzed: 06/03/23				
Chloride	8.84		mg/kg	100	22.6	NR	80-120			QM-05
<b>Matrix Spike Dup (P3F0203-MSD1)</b>				<b>Source: 3E31009-29</b>		Prepared: 06/02/23 Analyzed: 06/03/23				
Chloride	41.7		mg/kg	100	38.8	2.90	80-120	32.7	20	QM-05
<b>Matrix Spike Dup (P3F0203-MSD2)</b>				<b>Source: 3F01007-01</b>		Prepared: 06/02/23 Analyzed: 06/03/23				
Chloride	8.02		mg/kg	100	22.6	NR	80-120		20	QM-05

Permian Basin Environmental Lab, L.P.

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E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

### 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:



Date:

6/12/2023

Brent Barron, Laboratory Director/Technical Director



E Tech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa TX, 79765

Project: West B4 Release  
Project Number: 17376  
Project Manager: Joel Lowry

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

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

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Phone: 432-686-7235

Project Manager: Joel Lowry

Project Name: West B4 Release

Company Name: Etech Environmental & Safety Solutions, Inc.

Project #: 17376

Company Address: 2617 West Marland

Project Loc: 32.85094, -103.85942

City/State/Zip: Hobbs, NM 88240

PO #: SRS-2022-053

Telephone No: (575) 264-9884

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Fax No:

Sampler Signature: \_\_\_\_\_ e-mail: PM@etechnv.com

(lab use only)

ORDER #: 8F01013

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Ice

HNO<sub>3</sub> 250 ml Poly

HCl

H<sub>2</sub>SO<sub>4</sub>

NaOH

Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

None 1L Poly

NaOH/ZnAc

DW=Drinking Water SL=Sludge

GW = Groundwater S=Soil/Solid

NP=Non-Potable Specify Other

TPH 8015 M (NEW MEXICO)

CHLORIDES

BTEX 8021 B

Rush 24 48 72 (Please call)

Standard

Special Instructions:

Please email copy of COC to and results to PM@etechnv.com.

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

Sample Containers Intact?

VOCs Free of Headspace?

Labels on container(s)

Custody seals on container(s)

Custody seals on cooler(s)

Sample Hand Delivered

by Sampler/Client Rep.?

by Courier?

Temperature Upon Receipt:

Adjusted: \_\_\_\_\_ °C Factor

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

N

N

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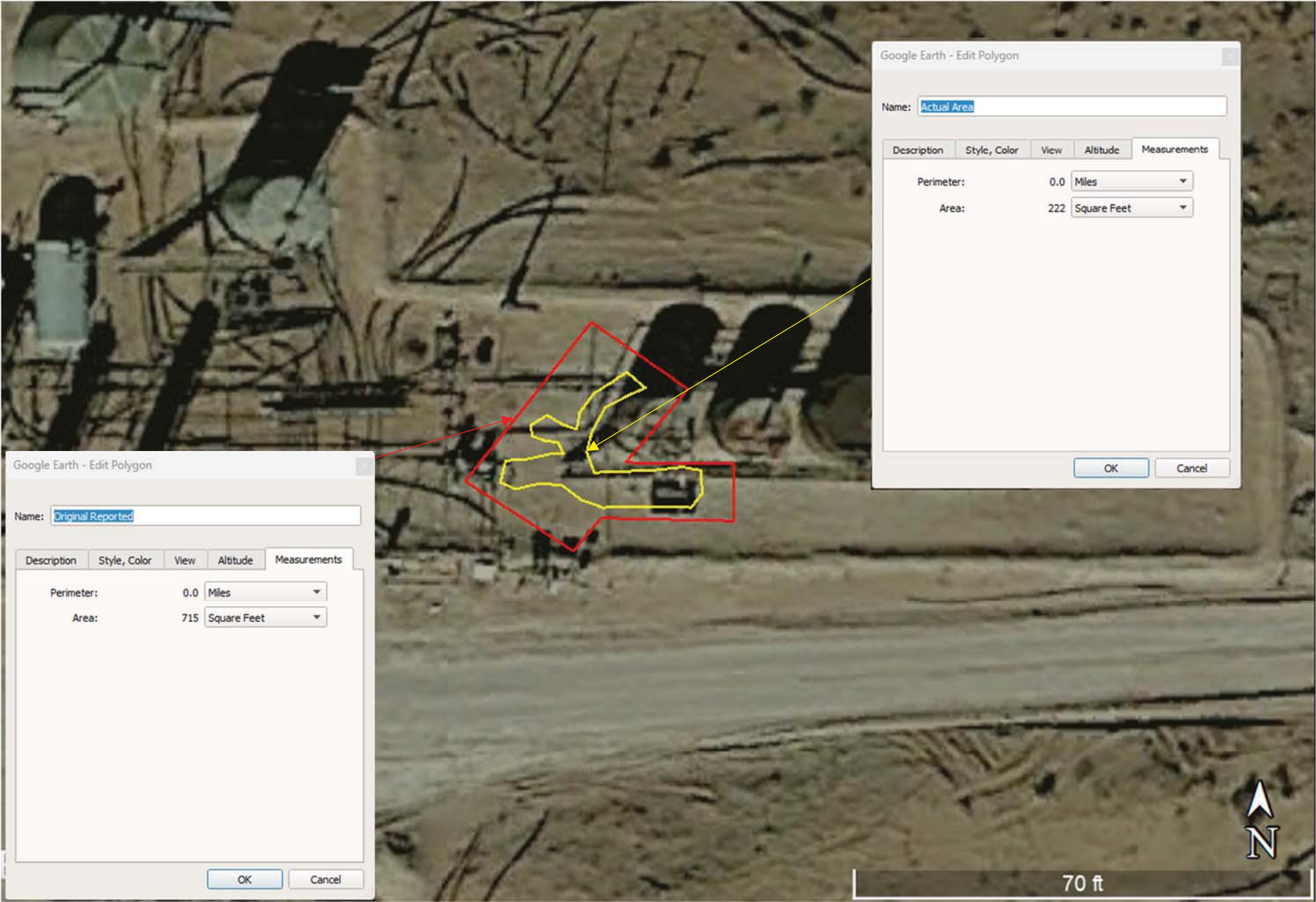
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**Attachment #9 – Volume Calculation Spread Sheets**



Soil Type	Est. Pore Space
Clay	15%
Sandy Clay	12%
Silt	16%
Loess	25%
Fine Sand	16%
Med. Sand	25%
Coarse Sand	26%
Gravelly Sand	26%
Fine Gravel	26%
Med. Gravel	25%
Coarse Gravel	18%
Compacted Caliche Pad	16%
Loosely Compacted Caliche Pad	20%

**Location: Plains West B4 (Original)**

Rule of Thumb

To Calculate The Oil Content of Saturated Soil

Average Pore Space Between Soil Grains Ranges From A **Low of 15%** To A **High of 26%**. Pure Sand Being 26%.

20% = Estimated Pore Space

Width Times Length Times Depth = Cubic Feet

= Width in **Feet** 0 = Cubic Feet  
= Length in **Feet** 0 = Gallons Per Total Cubic Feet

= Depth in **Inches**  
0 = Depth in Feet 0 = Gallons Of Oil In Soil  
0.0 = Barrel Of Oil In Soil

There Are 7.48 Gallons Of Oil Per Cubic Foot

0.00 = Gallons of Oil In Soil

0.0 = Barrels of Oil In Soil

\*\*\*If different soil types are impacted (I.E. Caliche Pad and Sandy Clay Pasture Area), additional calculation boxes are provided below. If not, please make sure the dimensions are zeroed out before finalizing.\*\*\*

12% = Estimated Pore Space

Width Times Length Times Depth = Cubic Feet

30 = Width in **Feet** 225 = Cubic Feet  
15 = Length in **Feet** 1683 = Gallons Per Total Cubic Feet  
450 = Square Feet Subtotal  
6 = Depth in **Inches** 202 = Gallons Of Oil In Soil  
0.5 = Depth in Feet 4.8 = Barrel Of Oil In Soil

There Are 7.48 Gallons Of Oil Per Cubic Foot

201.96 = Gallons of Oil In Soil

4.8 = Barrels of Oil In Soil

12% = Estimated Pore Space

Width Times Length Times Depth = Cubic Feet

33 = Width in **Feet** 132 = Cubic Feet  
8 = Length in **Feet** 987.36 = Gallons Per Total Cubic Feet  
264 = Square Feet Subtotal  
6 = Depth in **Inches** 118 = Gallons Of Oil In Soil  
0.5 = Depth in Feet 2.8 = Barrel Of Oil In Soil

There Are 7.48 Gallons Of Oil Per Cubic Foot

118.48 = Gallons of Oil In Soil

2.8 = Barrels of Oil In Soil

Total Square Feet	714
Cubic Feet	357
Gallons per Total Cubic Feet	2670.36
Gallons of Oil in Soil	320.4432
Total Estimated Barrels of Oil in Soil	7.6



Total Square Feet	250
Cubic Feet	125
Gallons per Total Cubic Feet	935
Gallons of Oil in Soil	112.2
Total Estimated Barrels of Oil in Soil	2.7

**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 271353

CONDITIONS

Operator:  PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID:  34053
	Action Number:  271353
	Action Type:  [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Work plan approved.	3/18/2024
amaxwell	Submit a report via the OCD permitting portal by July 19, 2024.	3/18/2024