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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Shelby Pennington	Contact Telephone 281-723-9353
Contact email Shelby_Pennington@xtoenergy.com	Incident # *(assigned by OCD)* 1RP-4978
Contact mailing address 6401 Holiday Hill Rd. Building 5 Midland TX 79707	

Location of Release Source

Latitude 32.392778 Longitude -103.207778
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Christmas C #9	Site Type Between Location & Battery
Date Release Discovered 2/9/2018	API# *(if applicable)* 3002525499

Unit Letter	Section	Township	Range	County
E	18	22S	37E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 0.19 bbls	Volume Recovered (bbls) 0.14 bbls
☒ Produced Water	Volume Released (bbls) 12.29 bbls	Volume Recovered (bbls) 8.87 bbls
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Lease Operator found production low on Christmas C #9, and walked out flowline to discover rupture and a split due to possible weak spot in older flowline.

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? The amount of crude oil and produced water released is below 25 bbls.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, XTO Production foreman, Shannon Walker submitted an inital C-141 to OCD

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: Shelby Pennington Title: Environmental Coordinator

Signature: Shelby Pennington Date: 6/26/2019

email: Shelby_Pennington@xtoenergy.com Telephone: 281-723-9353

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	190 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

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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: Shelby Pennington Title: Environmental Coordinator

Signature: Shelby Pennington Date: 6/26/2019

email: Shelby_Pennington@xtoenergy.com Telephone: 281-723-9353

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

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Remediation Plan

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

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

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

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

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

Printed Name: Shelby Pennington Title: Environmental Coordinator

Signature: Shelby Pennington Date: 6/26/2019

email: Shelby_Pennington@xtoenergy.com Telephone: 281-723-9353

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

[X] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

[X] Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Shelby Pennington Title: Environmental Coordinator

Signature: Shelby Pennington Date: 6/26/2019

email: Shelby_Pennington@xtoenergy.com Telephone: 281-723-9353

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Bradford Billings Date: 05/12/2020

Printed Name: Bradford Billings Title: E.Spec.A

1RP-4978
CLOSURE REPORT
Christmas C#9
Lea County, New Mexico

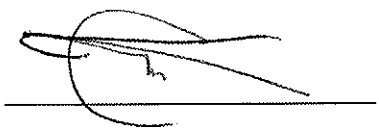
Latitude: 32.392778° North
Longitude: -103.207778° West

LAI Project No. 18-0144-01

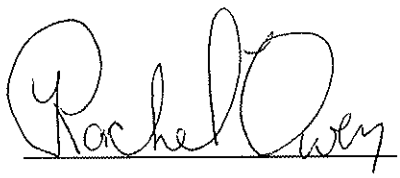
July 1, 2019

Prepared for:
XTO Energy, Inc.
6401 Holiday Hill Road, Building 5
Midland, Texas 79707

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld Street, Suite 205
Midland, Texas 79701



Mark J. Larson, P.G.
Certified Professional Geologist #10490



Rachel E. Owen
Sr. Geoscientist

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Appendices

1.0 INTRODUCTION

Larson & Associates, Inc., (LAI) has prepared this closure report on behalf of XTO Energy, Inc. (XTO) for submittal to the New Mexico Oil Conservation Division (OCD) District 1 for a produced water and crude oil spill at the Christmas C Well #9 (Site) located in Unit E (SW/4, NW/4), Section 18, Township 22 South, Range 37 East in Lea County, New Mexico. The surface and mineral ownership are private. The geodetic position is North 32.392778° and West -103.207778°. Figure 1 presents a topographic map.

1.1 Background

The spill occurred on February 9, 2018, due to a split in the steel flow line releasing approximately 0.19 barrels (bbls) of oil and 12.29 bbls of produced water. Approximately 0.14 bbls of oil and 8.87 bbls of produced water were recovered. The spill occurred about 2,100 feet southwest of the Christmas C Well #9. Released fluids migrated approximately 140 feet northeast before terminating in the pasture. The affected area measures approximately 1,324 square feet. The release is considered a minor spill due to the volume of fluid less than 25 bbls. The initial C-141 was submitted to OCD District 1 on February 27, 2018; however GPS coordinates presented on the initial C-141 were incorrect. The initial C-141 was approved on February 27, 2018. OCD assigned the release remediation permit number 1RP-4978. Appendix A presents the amended initial C-141.

1.2 Physical Setting

The Physical Setting is as follows:

- The surface elevation is approximately 3,435 feet above mean sea level (msl);
- The topography slopes to the southeast;
- The nearest surface water feature is greater than 1,000 feet east of the Site
- The soils are designated as “Tonuco loamy fine sand, 0 to 3 percent slopes”, consisting of loamy fine sand about 12 inches thick and underlain by loamy sand to about 17 inches below ground surface (bgs) and cemented material (caliche) below about 17 inches bgs;
- The surface geology is designated as eolian and piedmont deposits (Holocene to middle Pleistocene) interbedded eolian sands and piedmont-slope deposits;
- The average depth to groundwater based on State of New Mexico Office of the State Engineer (OSE) records is approximately 190 feet bgs;
- The nearest freshwater well based on OSE records is located in Unit C (NE/4, NW/4), Section 18, Township 22 South, Range 37 East.

1.3 Remediation Levels

The following remediation standards are based on closure criteria for soils impacted by a release as presented in Table 1 (19.15.29 NMAC):

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 2,500 mg/Kg
- Chloride 20,000 mg/Kg

Further, 19.15.29.13 NMAC (Restoration, Reclamation and Re-Vegetation) requires the operator to restore the impacted surface area that existed prior to the release or their final land use.

2.0 REMEDIATION

On March 4 and 5, 2019, SDR Enterprises LLC (SDR), under supervision from LAI, excavated soil from the area encompassing about 1,344 square feet in the vicinity of DP-3, about 1,080 square feet in the vicinity of DP-5, and about 1,452 square feet in the vicinity of DP-8 and DP-10, to approximately 1, 2, and 5 feet bgs, respectively. Approximately 540 cubic yards of contaminated soil was disposed at Sundance Services located east of Eunice, New Mexico. On March 5, 2019, LAI personnel collected initial bottom confirmation samples at 1, 2, and 5 feet bgs, from DP-3, DP-5 and DP-8 and DP-10, respectively. Initial sidewalls confirmation samples were collected at approximately 1, 2, and 5 feet bgs, from DP-3, DP-5 and DP-8 and DP-10, respectively. The samples were delivered under preservation and chain of custody to Permian Basin Environmental Lab (PBEL) which analyzed the samples for BTEX, TPH, including GRO (C6-C12), DRO (>C12-C28) and ORO (>C28-C35) and chloride by EPA SW-846 Methods 8021B, 8015M and Method 300, respectively.

Based on the initial confirmation sample analysis, additional soil excavation was necessary to remediate residual TPH in soil. On April 1-3, 2019, SDR widened the excavation at DP-3, DP-5, DP-8 and DP-10 and deepened the excavation to approximately 6 feet bgs at DP-8 and DP-10. On April 1-3, 2019, LAI personnel collected final bottom confirmation samples at 1, 2, and 6 feet bgs, from DP-3, DP-5, DP-8, and DP-10, respectively. Final sidewall confirmation samples were collected at 0.5, 1, and 3 feet, from DP-3, DP-5 and DP-8 and DP-10, respectively. Please note that the final sidewall samples were collected at shallower depths than the initial sidewall samples collected on March 5, 2019, as sidewall samples should be taken at a depth that is half of the total depth of the excavation. The samples were analyzed for TPH to confirm the release was remediated to the closure criteria presented in Table 1 (19.15.29 NMAC). Table 1 presents the confirmation soil sample analytical data summary. Figure 3 presents the soil confirmation sample locations and excavation areas. Appendix C presents the laboratory reports. Appendix D presents photographs. Appendix E presents waste manifests.

3.0 CLOSURE

All sidewall confirmation sample concentrations were below the remediation levels. Chloride reported above surface restoration requirements in 19.15.29 NMAC for chloride (600 mg/Kg) but within a small margin of error for the analytical method in the north sidewall sample at DP-10, 3 feet bgs (620 mg/Kg). XTO backfilled the excavation with clean topsoil from the landowner's pit approximately 1 mile south of the site. XTO will seed the backfilled pasture area with BLM Mix #2 during the next rainfall event. XTO requests closure for 1RP-4978. Table 1 presents the analytical data of the backfill material.

TABLES

Table 1
1RP-4978
Remediation Confirmation Soil Sample Analytical Data Summary
XTO Energy, Christmas C #9
Lea County, New Mexico

Sample	Collection Date	Location	Status	Depth (Feet)	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
					10	50				2,500	20,000
Excavation Samples											
DP 3.1	3/5/2019	Bottom	In-Situ	1	<0.0233	<0.1165	173	1,590	433	2,200	272
DP 3.2	3/5/2019	Southern Sidewall	Excavated	1	<0.0208	<0.104	<130	2,290	526	2,810	25.7
	4/3/2019		In-Situ	0.5	<0.00103	<0.00618	<25.8	479	100	579	167
	5/2/2019		In-Situ	1	--	--	31.6	31.6	31.6	31.6	--
DP 3.3	3/5/2019	Northern Sidewall	In-Situ	1	<0.00102	<0.0051	<25.5	49	<25.5	49	9.44
DP 3.4	3/5/2019	Eastern Sidewall	Excavated	1	<0.0217	0.3398	814	8,120	1,550	10,500	227
	4/3/2019		In-Situ	0.5	<0.00103	<0.00618	<25.8	<25.8	<25.8	<25.8	2.27
	5/2/2019		In-Situ	1	--	--	25.3	25.3	25.3	25.3	--
DP 5.1	3/5/2019	Bottom	In-Situ	2	<0.023	<0.115	52.3	878	192	1,120	280
	4/2/2019		In-Situ	2	<0.00115	<0.00690	<28.7	<28.7	<28.7	<28.7	515
DP 5.2	3/5/2019	Southern Sidewall	Excavated	2	<0.0225	2.399	736	4,530	934	6,200	194
	4/2/2019		In-Situ	1	<0.0011	<0.00660	<27.8	<27.8	<27.8	<27.8	--
	5/2/2019			2	--	--	27.8	27.8	28	27.8	--
DP 5.3	3/5/2019	Northern Sidewall	Excavated	2	<0.0225	1.264	547	2,750	667	3,960	408
	4/2/2019		In-Situ	1	<0.00114	<0.00683	<28.4	<28.4	<28.4	<28.4	--
	5/2/2019		In-Situ	2	--	--	30.5	30.5	30.5	30.5	--
DP 8.1	3/5/2019	Bottom	Excavated	5	<0.022	0.2592	236	2,800	500	3,530	88.3
	4/2/2019		In-Situ	6	<0.00114	<0.00683	<28.4	<28.4	<28.4	<28.4	435
DP 8.2	3/5/2019	Southern Sidewall	Excavated	5	<0.022	0.3743	307	4,380	800	5,490	138
	4/2/2019		In-Situ	3	<0.00111	<0.0066	<27.8	<27.8	<27.8	<27.8	491
	5/2/2019		In-Situ	5	--	--	27.8	27.8	27.8	28.7	--
DP 8.3	3/5/2019	Northern Sidewall	In-Situ	5	<0.022	0.0833	185	1,800	406	2390	520
	4/2/2019		In-Situ	3	<0.00115	<0.00690	<28.7	<28.7	<28.7	<28.7	--
DP 10.1	3/5/2019	Bottom	In-Situ	5	0.0657	1.8827	524	4,540	787	5,850	340
	4/1/2019		In-Situ	6	<0.00112	<0.00673	<28.1	45.8	<28.1	45.8	536
DP 10.2	3/5/2019	Western Sidewall	Excavated	5	<0.0217	1.883	1030	4,930	1,020	6,980	520
	4/1/2019		In-Situ	3	<0.0011	<0.0066	<27.8	<27.8	<27.8	<27.8	476
	5/2/2019		In-Situ	5	--	--	27.2	27.2	27.2	27.2	--
DP 10.3	3/5/2019	Southern Sidewall	Excavated	5	0.3	3.72	1900	8,830	1,760	12,500	382
	4/1/2019		In-Situ	3	<0.00110	<0.0660	<27.5	<27.5	<27.5	<27.5	511
	5/2/2019		In-Situ	5	--	--	33.3	33.3	33.3	33.3	--
DP 10.4	3/5/2019	Northern Sidewall	Excavated	5	<0.0200	2.633	981	7,460	1,370	9,810	653

Table 1
1RP-4978
Remediation Confirmation Soil Sample Analytical Data Summary
XTO Energy, Christmas C #9
Lea County, New Mexico

Sample	Collection Date	Location	Status	Depth (Feet)	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
					10	**50**				**2,500**	**20,000**
	4/2/2019		In-Situ	3	<0.00112	<0.00672	<28.1	<28.1	<28.1	<28.1	620
	5/2/2019		In-Situ	5	--	--	28.4	28.4	28.4	28.4	542
Backfill Composite 1	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	1.38
Backfill Composite 2	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	<1.09
Backfill Composite 3	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	1.36
Backfill Composite 4	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	<1.09
Backfill Composite 5	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	3.85
Backfill Composite 6	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	<1.09
Backfill Composite 7	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	<1.09
Backfill Composite 8	6/4/2019	Soil Pit	In-Situ	--	--	--	--	--	--	--	1.70

Notes: analysis performed by Permian Basin Environmental Laboratories, Midland, Texas by EPA SW-846 Mthod 8021B (BTEX), 8015M (TPH) and 300 (chloride)

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

*: OCD delineation level

Bold and highlighted denotes concentration exceeds OCD Cleanup level

FIGURES

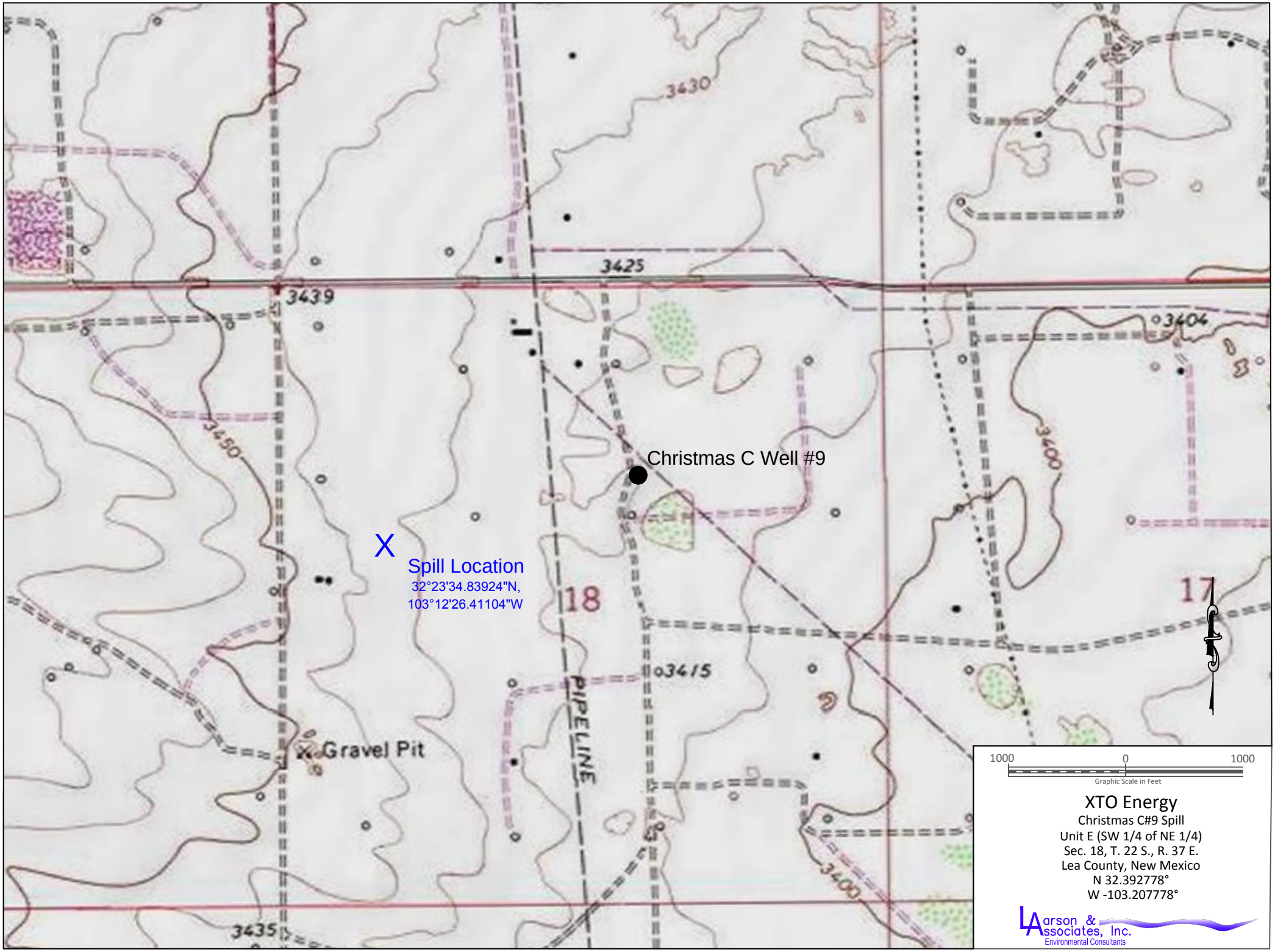

Figure 1 - Topographic Map

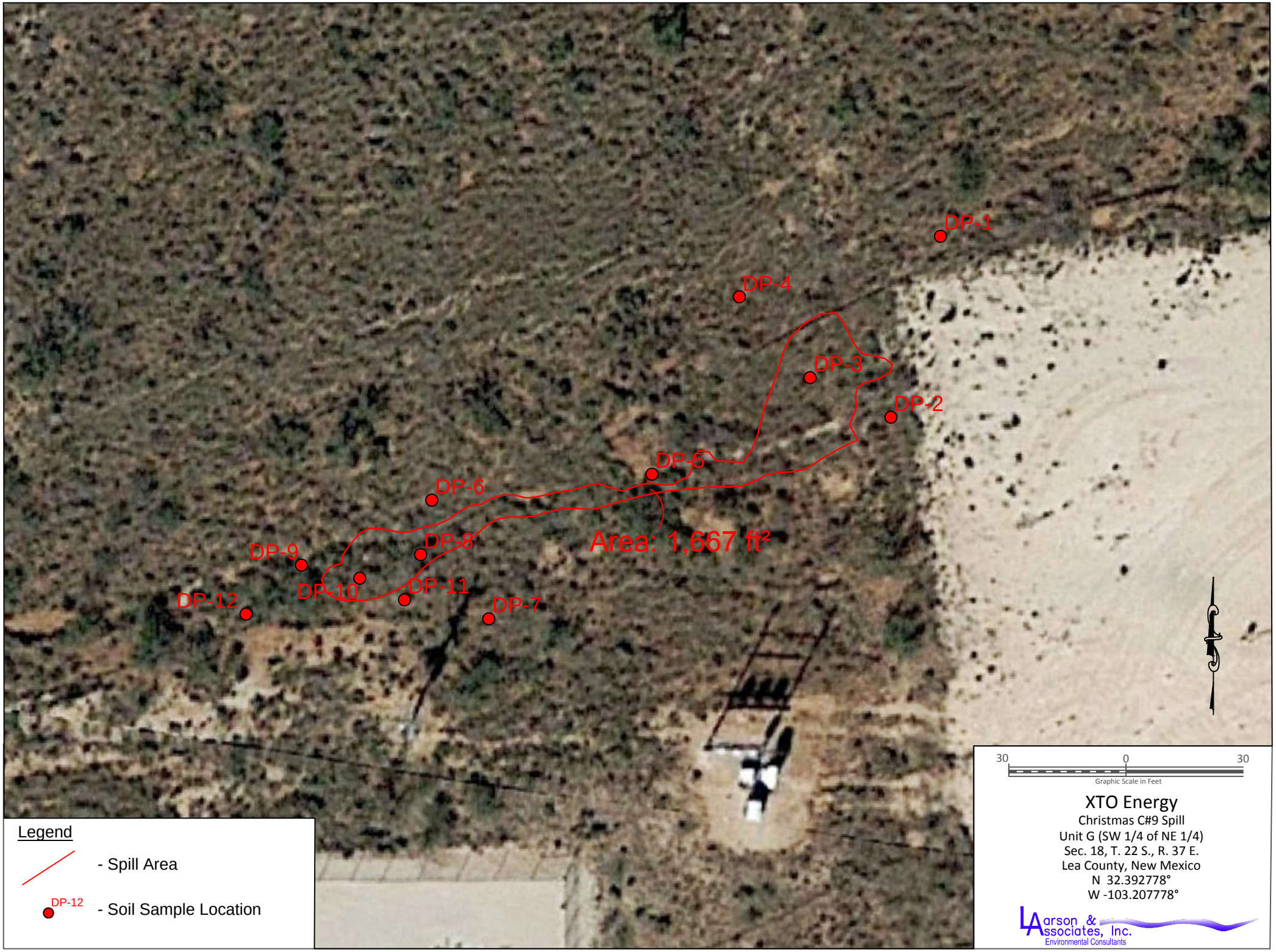

Figure 2 - Aerial Map Showing Soil Sample Locations

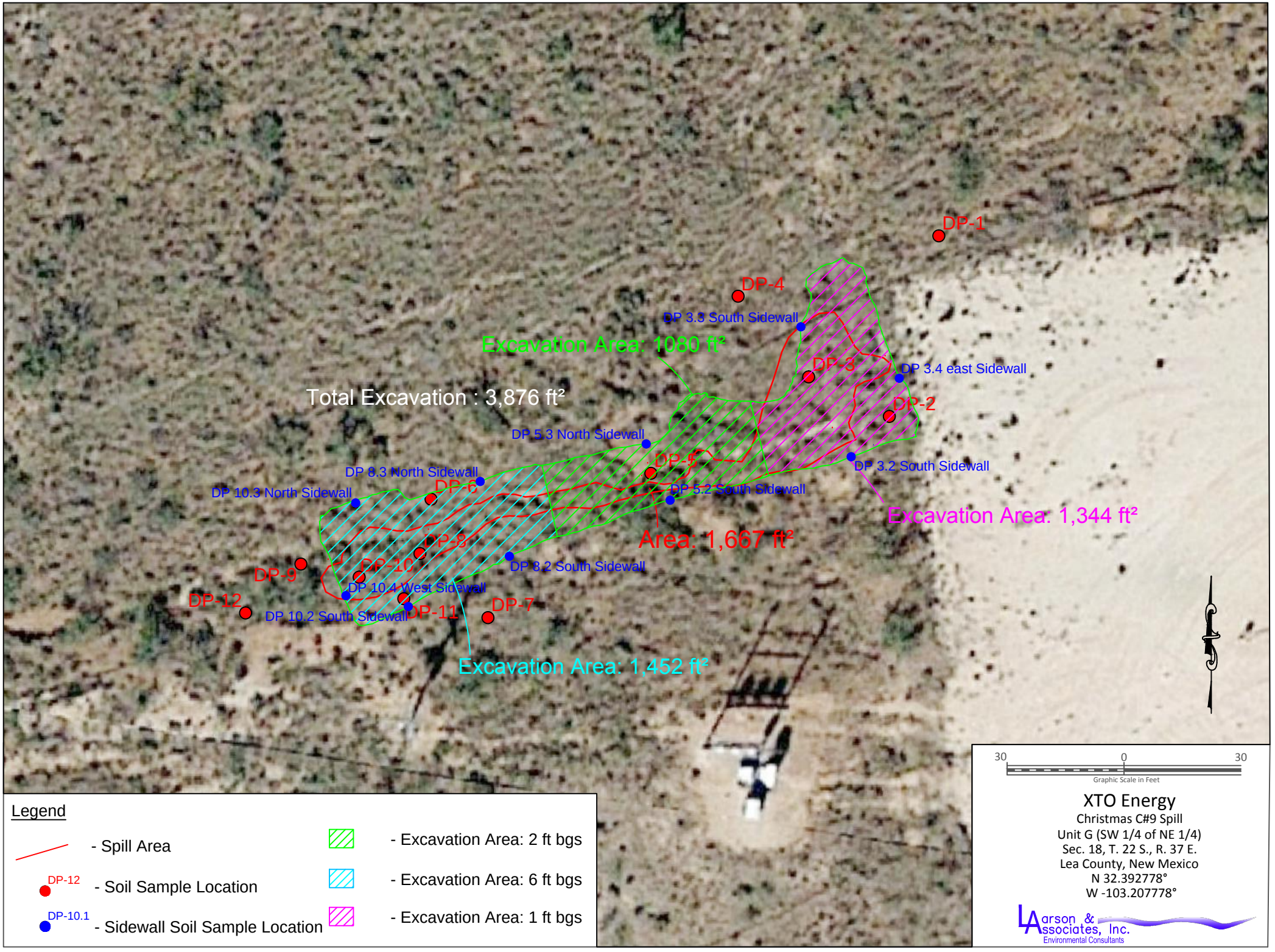

Figure 3 - Site Map Showing Excavation Area and Sidewall Sample Locations

APPENDIX A

Initial C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

X Initial Report ☐ Final Report

Name of Company XTO Energy	Contact Scott Kaufman
Address 500 W. Illinois Suite 100 Midland TX 79701	Telephone No. 432-234-3054
Facility Name Christmas C #9	Facility Type Between Location & Battery

Surface Owner Private	Mineral Owner Private	API No. 3002525499

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	18	22 S	37 E					Lea

Latitude 32.392778 Longitude -103.207778 NAD83

NATURE OF RELEASE

Type of Release Produced Oil and Water	Volume of Release 0.19 bbls oil, 12.29 bbls water	Volume Recovered 0.14 bbls oil, 8.87 bbls water
Source of Release Flowline	Date and Hour of Occurrence 2/9/2018 Time Unknown	Date and Hour of Discovery 2/9/2018 Time 1:30pm MT
Was Immediate Notice Given? X Yes ☐ No ☐ Not Required	If YES, To Whom? Land owner verbal & E-mail Olivia Yu, NMOCD	
By Whom? Scott Kaufman	Date and Hour 2/9/2018 @ 7:00 pm MT	
Was a Watercourse Reached? ☐ Yes X No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

RECEIVED
By Olivia Yu at 7:35 am, Feb 27, 2018

Describe Cause of Problem and Remedial Action Taken.*

Lease Operator found production low on Christmas C #9, and walked out flowline to discover rupture and a split due to possible weak spot in older flowline.

Describe Area Affected and Cleanup Action Taken.*

1,324 ft² was affected and picked up by Vac truck. Once RP# is given final clean up measures will be taken by XTO Energy to complete remediation.

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

Signature: Scott Kaufman

Printed Name: Scott Kaufman

Title: Oil Center Production Foreman

E-mail Address: scott_kaufman@xtoenergy.com

Date: 2/21/2018 Phone:432-234-3054

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: OJ

Approval Date: 2/27/2018 Expiration Date:

Conditions of Approval: see attached directive

Attached ☑

* Attach Additional Sheets If Necessary

1RP-4978 nOY1805827904 pOY1805828402

APPENDIX B

OCD Correspondence

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _2/21/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4978__ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _3/27/2018_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

APPENDIX C

Laboratory Reports

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

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO Christmas C #9

Project Number: 18-0144-01

Location:

Lab Order Number: 9C06001

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-18-9

Report Date: 03/13/19

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-10.1	9C06001-01	Soil	03/05/19 10:32	03-06-2019 10:31
DP-10.2 West Sidewall	9C06001-02	Soil	03/05/19 10:40	03-06-2019 10:31
DP-10.3 South Sidewall	9C06001-03	Soil	03/05/19 10:42	03-06-2019 10:31
DP-10.4 North Sidewall	9C06001-04	Soil	03/05/19 10:46	03-06-2019 10:31
DP-8.1	9C06001-05	Soil	03/05/19 12:15	03-06-2019 10:31
DP-8.2 South Sidewall	9C06001-06	Soil	03/05/19 12:27	03-06-2019 10:31
DP-8.3 North Sidewall	9C06001-07	Soil	03/05/19 12:28	03-06-2019 10:31
DP-5.1	9C06001-08	Soil	03/05/19 16:07	03-06-2019 10:31
DP-5.2 South Sidewall	9C06001-09	Soil	03/05/19 16:12	03-06-2019 10:31
DP-5.3 North Sidewall	9C06001-10	Soil	03/05/19 16:13	03-06-2019 10:31
DP-3.1	9C06001-11	Soil	03/05/19 16:13	03-06-2019 10:31
DP-3.2 South Sidewall	9C06001-12	Soil	03/05/19 16:18	03-06-2019 10:31
DP-3.3 North Sidewall	9C06001-13	Soil	03/05/19 16:26	03-06-2019 10:31
DP-3.4 East Sidewall	9C06001-14	Soil	03/05/19 16:27	03-06-2019 10:31

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Project: XTO Christmas C #9
Project Number: 18-0144-01
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Fax: (432) 687-0456

DP-10.1

9C06001-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0657**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	**0.242**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.206**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**0.894**	0.0440	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.475**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*103 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*86.6 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**340**	5.49	mg/kg dry	5	P9C1002	03/10/19	03/11/19	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**524**	137	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C12-C28	**4540**	137	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C28-C35	**787**	137	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*99.0 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.9 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**5850**	137	mg/kg dry	5	[CALC]	03/08/19	03/08/19	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-10.2 West Sidewall

9C06001-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	**0.267**	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.260**	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**1.08**	0.0435	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.276**	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.7 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*102 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**520**	1.09	mg/kg dry	1	P9C1002	03/10/19	03/11/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**1030**	136	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C12-C28	**4930**	136	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C28-C35	**1020**	136	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*92.4 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*111 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**6980**	136	mg/kg dry	5	[CALC]	03/08/19	03/08/19	calc	

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DP-10.3 South Sidewall

9C06001-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.300**	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	**0.766**	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.468**	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**1.68**	0.0444	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.506**	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*89.7 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*85.6 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**382**	1.11	mg/kg dry	1	P9C1002	03/10/19	03/11/19	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**1900**	139	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C12-C28	**8830**	139	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C28-C35	**1760**	139	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*90.7 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**12500**	139	mg/kg dry	5	[CALC]	03/08/19	03/08/19	calc	

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Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-10.4 North Sidewall

9C06001-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0200	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	**0.111**	0.0200	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.897**	0.0200	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**0.652**	0.0400	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.973**	0.0200	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*87.9 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.6 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**653**	5.00	mg/kg dry	5	P9C1002	03/10/19	03/11/19	EPA 300.0	
% Moisture	ND	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**981**	125	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C12-C28	**7460**	125	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C28-C35	**1370**	125	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.4 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*100 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**9810**	125	mg/kg dry	5	[CALC]	03/08/19	03/08/19	calc	

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Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-8.1

9C06001-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.0591**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**0.141**	0.0440	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.0591**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*83.3 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.2 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**88.3**	1.10	mg/kg dry	1	P9C1002	03/10/19	03/11/19	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**236**	27.5	mg/kg dry	1	P9C0810	03/08/19	03/11/19	TPH 8015M	
>C12-C28	**2800**	27.5	mg/kg dry	1	P9C0810	03/08/19	03/11/19	TPH 8015M	
>C28-C35	**500**	27.5	mg/kg dry	1	P9C0810	03/08/19	03/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*81.1 %*	*70-130*		*P9C0810*	*03/08/19*	*03/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*87.3 %*	*70-130*		*P9C0810*	*03/08/19*	*03/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**3530**	27.5	mg/kg dry	1	[CALC]	03/08/19	03/11/19	calc	

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Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-8.2 South Sidewall

9C06001-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.0523**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**0.213**	0.0440	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.109**	0.0220	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*83.0 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.6 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**138**	1.10	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**307**	137	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C12-C28	**4380**	137	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C28-C35	**800**	137	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*92.4 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**5490**	137	mg/kg dry	5	[CALC]	03/08/19	03/08/19	calc	

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Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

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DP-8.3 North Sidewall

9C06001-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	ND	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**0.0833**	0.0444	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	ND	0.0222	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*81.2 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*89.3 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**520**	5.56	mg/kg dry	5	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**185**	139	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C12-C28	**1800**	139	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
>C28-C35	**406**	139	mg/kg dry	5	P9C0810	03/08/19	03/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*90.0 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*P9C0810*	*03/08/19*	*03/08/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2390**	139	mg/kg dry	5	[CALC]	03/08/19	03/08/19	calc	

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Project: XTO Christmas C #9
Project Number: 18-0144-01
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DP-5.1

9C06001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.0230	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.0230	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	ND	0.0230	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	ND	0.0460	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	ND	0.0230	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*81.7 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**280**	1.15	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**52.3**	28.7	mg/kg dry	1	P9C0810	03/08/19	03/11/19	TPH 8015M	
>C12-C28	**878**	28.7	mg/kg dry	1	P9C0810	03/08/19	03/11/19	TPH 8015M	
>C28-C35	**192**	28.7	mg/kg dry	1	P9C0810	03/08/19	03/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*83.3 %*	*70-130*		*P9C0810*	*03/08/19*	*03/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*99.3 %*	*70-130*		*P9C0810*	*03/08/19*	*03/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1120**	28.7	mg/kg dry	1	[CALC]	03/08/19	03/11/19	calc	

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Project Number: 18-0144-01
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DP-5.2 South Sidewall

9C06001-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	**0.253**	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.280**	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**1.11**	0.0449	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.756**	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*88.3 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*102 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**194**	1.12	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**736**	140	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C12-C28	**4530**	140	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C28-C35	**934**	140	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*99.1 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**6200**	140	mg/kg dry	5	[CALC]	03/08/19	03/09/19	calc	

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Project: XTO Christmas C #9
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DP-5.3 North Sidewall

9C06001-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	**0.127**	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.247**	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**0.629**	0.0449	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.261**	0.0225	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*82.4 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*79.3 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**408**	1.12	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**547**	140	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C12-C28	**2750**	140	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C28-C35	**667**	140	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**3960**	140	mg/kg dry	5	[CALC]	03/08/19	03/09/19	calc	

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DP-3.1

9C06001-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0233	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.0233	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	ND	0.0233	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	ND	0.0465	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	ND	0.0233	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*72.2 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	*S-09*
Surrogate: 4-Bromofluorobenzene		*95.8 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**272**	1.16	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**173**	145	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C12-C28	**1590**	145	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C28-C35	**433**	145	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*69.6 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	*S-GC*
Surrogate: o-Terphenyl		*85.9 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2200**	145	mg/kg dry	5	[CALC]	03/08/19	03/09/19	calc	

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DP-3.2 South Sidewall

9C06001-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0208	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.0208	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	ND	0.0208	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	ND	0.0417	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	ND	0.0208	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*102 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*70.5 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	*S-09*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**25.7**	1.04	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	130	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C12-C28	**2290**	130	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C28-C35	**526**	130	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*75.3 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*90.7 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2810**	130	mg/kg dry	5	[CALC]	03/08/19	03/09/19	calc	

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DP-3.3 North Sidewall

9C06001-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*109 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*76.7 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9.44**	1.02	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C12-C28	**49.0**	25.5	mg/kg dry	1	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P9C0810	03/08/19	03/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.5 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*98.4 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**49.0**	25.5	mg/kg dry	1	[CALC]	03/08/19	03/09/19	calc	

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DP-3.4 East Sidewall

9C06001-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Toluene	ND	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Ethylbenzene	**0.0648**	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (p/m)	**0.213**	0.0435	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Xylene (o)	**0.0620**	0.0217	mg/kg dry	20	P9C0703	03/07/19	03/07/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*76.0 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*81.7 %*	*75-125*		*P9C0703*	*03/07/19*	*03/07/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**227**	1.09	mg/kg dry	1	P9C1105	03/11/19	03/12/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9C0704	03/07/19	03/07/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**814**	136	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C12-C28	**8120**	136	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
>C28-C35	**1550**	136	mg/kg dry	5	P9C0810	03/08/19	03/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*119 %*	*70-130*		*P9C0810*	*03/08/19*	*03/09/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**10500**	136	mg/kg dry	5	[CALC]	03/08/19	03/09/19	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9C0703 - General Preparation (GC)										
Blank (P9C0703-BLK1)				Prepared & Analyzed: 03/07/19						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.0479*		*"*	*0.0600*		*79.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0588*		*"*	*0.0600*		*98.0*	*75-125*			
LCS (P9C0703-BS1)				Prepared & Analyzed: 03/07/19						
Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.119	0.00100	"	0.100		119	70-130			
Ethylbenzene	0.104	0.00100	"	0.100		104	70-130			
Xylene (p/m)	0.209	0.00200	"	0.200		105	70-130			
Xylene (o)	0.119	0.00100	"	0.100		119	70-130			
Surrogate: 1,4-Difluorobenzene	*0.0610*		*"*	*0.0600*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0638*		*"*	*0.0600*		*106*	*75-125*			
Calibration Blank (P9C0703-CCB1)				Prepared & Analyzed: 03/07/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.0457*		*"*	*0.0600*		*76.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0622*		*"*	*0.0600*		*104*	*75-125*			
Calibration Blank (P9C0703-CCB2)				Prepared & Analyzed: 03/07/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.0471*		*"*	*0.0600*		*78.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0588*		*"*	*0.0600*		*98.0*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9C0703 - General Preparation (GC)										
Calibration Check (P9C0703-CCV1)				Prepared & Analyzed: 03/07/19						
Benzene	0.115	0.00100	mg/kg wet	0.100		115	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.211	0.00200	"	0.200		105	80-120			
Xylene (o)	0.120	0.00100	"	0.100		120	80-120			
Surrogate: 1,4-Difluorobenzene	*0.0604*		*"*	*0.0600*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0614*		*"*	*0.0600*		*102*	*75-125*			
Calibration Check (P9C0703-CCV2)				Prepared & Analyzed: 03/07/19						
Benzene	0.114	0.00100	mg/kg wet	0.100		114	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120			
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	*0.0626*		*"*	*0.0600*		*104*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0630*		*"*	*0.0600*		*105*	*75-125*			
Calibration Check (P9C0703-CCV3)				Prepared: 03/07/19 Analyzed: 03/08/19						
Benzene	0.117	0.00100	mg/kg wet	0.100		117	80-120			
Toluene	0.113	0.00100	"	0.100		113	80-120			
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120			
Xylene (p/m)	0.209	0.00200	"	0.200		104	80-120			
Xylene (o)	0.118	0.00100	"	0.100		118	80-120			
Surrogate: 1,4-Difluorobenzene	*0.0603*		*"*	*0.0600*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0606*		*"*	*0.0600*		*101*	*75-125*			
Matrix Spike (P9C0703-MS1)	**Source: 9C06001-13**			Prepared & Analyzed: 03/07/19						
Benzene	0.0797	0.00102	mg/kg dry	0.102	ND	78.1	80-120			QM-05
Toluene	0.0762	0.00102	"	0.102	ND	74.7	80-120			QM-05
Ethylbenzene	0.0885	0.00102	"	0.102	ND	86.7	80-120			
Xylene (p/m)	0.133	0.00204	"	0.204	ND	65.0	80-120			QM-05
Xylene (o)	0.0730	0.00102	"	0.102	ND	71.6	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*0.0643*		*"*	*0.0612*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0686*		*"*	*0.0612*		*112*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9C0703 - General Preparation (GC)										
Matrix Spike Dup (P9C0703-MSD1)	**Source: 9C06001-13**			Prepared: 03/07/19 Analyzed: 03/08/19						
Benzene	0.105	0.00102	mg/kg dry	0.102	ND	103	80-120	27.3	20	QM-05
Toluene	0.105	0.00102	"	0.102	ND	103	80-120	32.0	20	QM-05
Ethylbenzene	0.0914	0.00102	"	0.102	ND	89.6	80-120	3.28	20	
Xylene (p/m)	0.219	0.00204	"	0.204	ND	107	80-120	49.0	20	QM-05
Xylene (o)	0.108	0.00102	"	0.102	ND	106	80-120	38.9	20	QM-05
Surrogate: 1,4-Difluorobenzene	*0.0658*		*"*	*0.0612*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0687*		*"*	*0.0612*		*112*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9C0704 - * DEFAULT PREP *** **										
Blank (P9C0704-BLK1)				Prepared & Analyzed: 03/07/19						
% Moisture	ND	0.1	%							
Duplicate (P9C0704-DUP1)		**Source: 9C06004-04**		Prepared & Analyzed: 03/07/19						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P9C0704-DUP2)		**Source: 9C06004-12**		Prepared & Analyzed: 03/07/19						
% Moisture	3.0	0.1	%		2.0			40.0	20	
Batch P9C1002 - * DEFAULT PREP *** **										
Blank (P9C1002-BLK1)				Prepared: 03/10/19 Analyzed: 03/11/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9C1002-BS1)				Prepared: 03/10/19 Analyzed: 03/11/19						
Chloride	391	1.00	mg/kg wet	400		97.8	80-120			
LCS Dup (P9C1002-BSD1)				Prepared: 03/10/19 Analyzed: 03/11/19						
Chloride	382	1.00	mg/kg wet	400		95.6	80-120	2.33	20	
Duplicate (P9C1002-DUP1)		**Source: 9C05017-16**		Prepared: 03/10/19 Analyzed: 03/11/19						
Chloride	9770	12.0	mg/kg dry		10000			2.53	20	
Duplicate (P9C1002-DUP2)		**Source: 9C05023-01**		Prepared: 03/10/19 Analyzed: 03/11/19						
Chloride	1900	5.32	mg/kg dry		1900			0.0533	20	
Matrix Spike (P9C1002-MS1)		**Source: 9C05017-16**		Prepared: 03/10/19 Analyzed: 03/11/19						
Chloride	11400	12.0	mg/kg dry	1200	10000	115	80-120			

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 P9C1105 - * DEFAULT PREP *** **										
Blank (P9C1105-BLK1)				Prepared: 03/11/19 Analyzed: 03/12/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9C1105-BS1)				Prepared: 03/11/19 Analyzed: 03/12/19						
Chloride	409	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P9C1105-BSD1)				Prepared: 03/11/19 Analyzed: 03/12/19						
Chloride	407	1.00	mg/kg wet	400		102	80-120	0.446	20	
Duplicate (P9C1105-DUP1)		**Source: 9C06001-06**		Prepared: 03/11/19 Analyzed: 03/12/19						
Chloride	126	1.10	mg/kg dry		138			9.18	20	
Duplicate (P9C1105-DUP2)		**Source: 9C06006-01**		Prepared: 03/11/19 Analyzed: 03/12/19						
Chloride	9200	52.6	mg/kg dry		8370			9.44	20	
Matrix Spike (P9C1105-MS1)		**Source: 9C06001-06**		Prepared: 03/11/19 Analyzed: 03/12/19						
Chloride	685	1.10	mg/kg dry	549	138	99.5	80-120			

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9C0810 - TX 1005										
Blank (P9C0810-BLK1)				Prepared & Analyzed: 03/08/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*78.7*		*"*	*100*		*78.7*	*70-130*			
Surrogate: o-Terphenyl	*47.5*		*"*	*50.0*		*95.0*	*70-130*			
LCS (P9C0810-BS1)				Prepared & Analyzed: 03/08/19						
C6-C12	799	25.0	mg/kg wet	1000		79.9	75-125			
>C12-C28	979	25.0	"	1000		97.9	75-125			
Surrogate: 1-Chlorooctane	*102*		*"*	*100*		*102*	*70-130*			
Surrogate: o-Terphenyl	*51.4*		*"*	*50.0*		*103*	*70-130*			
LCS Dup (P9C0810-BSD1)				Prepared & Analyzed: 03/08/19						
C6-C12	819	25.0	mg/kg wet	1000		81.9	75-125	2.55	20	
>C12-C28	964	25.0	"	1000		96.4	75-125	1.50	20	
Surrogate: 1-Chlorooctane	*98.7*		*"*	*100*		*98.7*	*70-130*			
Surrogate: o-Terphenyl	*47.8*		*"*	*50.0*		*95.6*	*70-130*			
Calibration Blank (P9C0810-CCB1)				Prepared & Analyzed: 03/08/19						
C6-C12	22.3		mg/kg wet							
>C12-C28	7.82		"							
Surrogate: 1-Chlorooctane	*99.2*		*"*	*100*		*99.2*	*70-130*			
Surrogate: o-Terphenyl	*61.1*		*"*	*50.0*		*122*	*70-130*			
Calibration Blank (P9C0810-CCB2)				Prepared & Analyzed: 03/08/19						
C6-C12	20.0		mg/kg wet							
>C12-C28	15.6		"							
Surrogate: 1-Chlorooctane	*90.8*		*"*	*100*		*90.8*	*70-130*			
Surrogate: o-Terphenyl	*55.4*		*"*	*50.0*		*111*	*70-130*			

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9C0810 - TX 1005										
Calibration Check (P9C0810-CCV1)				Prepared & Analyzed: 03/08/19						
C6-C12	452	25.0	mg/kg wet	500		90.5	85-115			
>C12-C28	540	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	*111*		*"*	*100*		*111*	*70-130*			
Surrogate: o-Terphenyl	*61.5*		*"*	*50.0*		*123*	*70-130*			
Calibration Check (P9C0810-CCV2)				Prepared & Analyzed: 03/08/19						
C6-C12	443	25.0	mg/kg wet	500		88.6	85-115			
>C12-C28	494	25.0	"	500		98.8	85-115			
Surrogate: 1-Chlorooctane	*103*		*"*	*100*		*103*	*70-130*			
Surrogate: o-Terphenyl	*55.8*		*"*	*50.0*		*112*	*70-130*			
Calibration Check (P9C0810-CCV3)				Prepared: 03/08/19 Analyzed: 03/09/19						
C6-C12	465	25.0	mg/kg wet	500		93.0	85-115			
>C12-C28	552	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*61.2*		*"*	*50.0*		*122*	*70-130*			
Matrix Spike (P9C0810-MS1)	**Source: 9C05027-03**			Prepared: 03/08/19 Analyzed: 03/09/19						
C6-C12	1120	29.4	mg/kg dry	1180	111	86.1	75-125			
>C12-C28	2630	29.4	"	1180	1490	96.9	75-125			
Surrogate: 1-Chlorooctane	*134*		*"*	*118*		*114*	*70-130*			
Surrogate: o-Terphenyl	*58.1*		*"*	*58.8*		*98.8*	*70-130*			
Matrix Spike Dup (P9C0810-MSD1)	**Source: 9C05027-03**			Prepared: 03/08/19 Analyzed: 03/09/19						
C6-C12	1070	29.4	mg/kg dry	1180	111	81.3	75-125	5.78	20	
>C12-C28	2500	29.4	"	1180	1490	85.2	75-125	12.8	20	
Surrogate: 1-Chlorooctane	*127*		*"*	*118*		*108*	*70-130*			
Surrogate: o-Terphenyl	*69.1*		*"*	*58.8*		*118*	*70-130*			

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Notes and Definitions

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

Report Approved By: Brent Barron Date: 3/13/2019

Brent Barron, Laboratory Director/Technical Director

Nº 0529

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 3-6-2019 PAGE 1 OF

PO#: LAB WORK ORDER#: 9C06001

PROJECT LOCATION OR NAME: XTO Christmas C #9

LAI PROJECT #: 18-01414-01 COLLECTOR: TO

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

9C06001

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	SemiVOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D.W. 200.8 ☐	TCLP ☐	RCI ☐	TOX ☐	TDS ☐	TSS ☐	% MOISTURE ☐	FLASHPOINT ☐	pH ☐	HEXAVALENT CHROMIUM ☐	CYANIDE ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDES ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
DP-10.1		3/5/19	10:32	S	1						X		X	X	X																										X			
DP-10.2 west sidewall		3/5/19	10:40	S	1						X		X	X	X																										X			
DP-10.3 South sidewall			10:42	S	1						X		X	X	X																										X			
DP-10.4 North sidewall			10:46	S	1						X		X	X	X																										X			
DP-8.1			12:15		1						X		X	X	X																										X			
DP-8.2 South sidewall			12:27		1						X		X	X	X																										X			
DP-8.3 North sidewall			12:28		1						X		X	X	X																										X			
DP-5.1			16:07		1						X		X	X	X																										X			
DP-5.2 South sidewall			16:12		1						X		X	X	X																										X			
DP-5.3 North sidewall			16:13		1						X		X	X	X																										X			
DP-3.1			16:13		1						X		X	X	X																										X			
DP-3.2 South sidewall			16:18		1						X		X	X	X																										X			
DP-3.3 North sidewall			16:26		1						X		X	X	X																										X			
DP-3.4 East sidewall			16:27		1						X		X	X	X																										X			
TOTAL																																													

RELINQUISHED BY:(Signature) DATE/TIME 3/6/19 10:31 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME 3-6-19 1031 RECEIVED BY: (Signature)

LABORATORY: PBEL

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1.0-2.0 THERM#: 12
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO Christmas C #9

Project Number: 18-0144-01

Location: None Given

Lab Order Number: 9D04003

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-18-9

Report Date: 04/15/19

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-10.2 West Sidewall (3')	9D04003-01	Soil	04/01/19 13:30	04-04-2019 09:46
DP-10.1 Bottom (6')	9D04003-02	Soil	04/01/19 14:29	04-04-2019 09:46
DP-10.3 South Sidewall (3')	9D04003-03	Soil	04/01/19 13:59	04-04-2019 09:46
DP-10.4 North Sidewall (3')	9D04003-04	Soil	04/02/19 13:38	04-04-2019 09:46
DP- 8.3 North Sidewall (3')	9D04003-05	Soil	04/02/19 09:43	04-04-2019 09:46
DP- 8.1 Bottom (6')	9D04003-06	Soil	04/02/19 09:45	04-04-2019 09:46
DP-8.2 South Sidewall (3')	9D04003-07	Soil	04/02/19 09:46	04-04-2019 09:46
DP-5.1 Bottom (2')	9D04003-08	Soil	04/02/19 10:50	04-04-2019 09:46
DP-5.2 South Sidewall (1')	9D04003-09	Soil	04/02/19 10:55	04-04-2019 09:46
DP-5.3 North Sidewall (1')	9D04003-10	Soil	04/02/19 10:56	04-04-2019 09:46
DP-3.2 South Sidewall (0.5')	9D04003-11	Soil	04/03/19 08:56	04-04-2019 09:46
DP-3.6 East Sidewall (0.5')	9D04003-12	Soil	04/03/19 09:55	04-04-2019 09:46

DP-10.2 West Sidewall (3')

9D04003-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*113 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*83.1 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**476**	1.11	mg/kg dry	1	P9D0809	04/08/19	04/09/19	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P9D0406	04/04/19	04/04/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9D0406	04/04/19	04/04/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9D0406	04/04/19	04/04/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*94.7 %*	*70-130*		*P9D0406*	*04/04/19*	*04/04/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*105 %*	*70-130*		*P9D0406*	*04/04/19*	*04/04/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	04/04/19	04/04/19	calc	

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Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-10.1 Bottom (6')

9D04003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*84.2 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**536**	1.12	mg/kg dry	1	P9D0809	04/08/19	04/09/19	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P9D0406	04/04/19	04/04/19	TPH 8015M	
>C12-C28	**45.8**	28.1	mg/kg dry	1	P9D0406	04/04/19	04/04/19	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P9D0406	04/04/19	04/04/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*93.6 %*	*70-130*		*P9D0406*	*04/04/19*	*04/04/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P9D0406*	*04/04/19*	*04/04/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**45.8**	28.1	mg/kg dry	1	[CALC]	04/04/19	04/04/19	calc	

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Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

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DP-10.3 South Sidewall (3')

9D04003-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*97.2 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*87.0 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**511**	1.10	mg/kg dry	1	P9D0809	04/08/19	04/09/19	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		*P9D0406*	*04/04/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*119 %*	*70-130*		*P9D0406*	*04/04/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	04/04/19	04/05/19	calc	

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P.O. Box 50685	Project Number: 18-0144-01	
Midland TX, 79710	Project Manager: Mark Larson	

DP-10.4 North Sidewall (3')

9D04003-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*95.5 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**620**	1.12	mg/kg dry	1	P9D0809	04/08/19	04/09/19	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P9D0406*	*04/04/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*114 %*	*70-130*		*P9D0406*	*04/04/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	04/04/19	04/05/19	calc	

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Project Manager: Mark Larson

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DP- 8.3 North Sidewall (3')

9D04003-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*111 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*82.6 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**13.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P9D0406	04/04/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*98.7 %*	*70-130*		*P9D0406*	*04/04/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P9D0406*	*04/04/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	04/04/19	04/05/19	calc	

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Project Number: 18-0144-01
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DP- 8.1 Bottom (6')

9D04003-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*92.5 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**435**	1.14	mg/kg dry	1	P9D0809	04/08/19	04/09/19	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*118 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*129 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	04/05/19	04/05/19	calc	

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Project Number: 18-0144-01
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DP-8.2 South Sidewall (3')

9D04003-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*92.6 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*111 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**491**	1.11	mg/kg dry	1	P9D0810	04/08/19	04/09/19	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*124 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*136 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	04/05/19	04/05/19	calc	

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DP-5.1 Bottom (2')

9D04003-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*109 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.6 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**515**	1.15	mg/kg dry	1	P9D0810	04/08/19	04/09/19	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	04/05/19	04/05/19	calc	

DP-5.2 South Sidewall (1')

9D04003-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*88.9 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**10.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*114 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*125 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	04/05/19	04/05/19	calc	

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DP-5.3 North Sidewall (1')

9D04003-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*85.3 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*117 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**12.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	04/05/19	04/05/19	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-3.2 South Sidewall (0.5')

9D04003-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*86.4 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*103 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**167**	1.03	mg/kg dry	1	P9D0810	04/08/19	04/09/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C12-C28	**479**	25.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C28-C35	**100**	25.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.8 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*107 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**579**	25.8	mg/kg dry	1	[CALC]	04/05/19	04/05/19	calc	

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Project: XTO Christmas C #9
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DP-3.6 East Sidewall (0.5')

9D04003-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P9D0807	04/08/19	04/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*85.0 %*	*75-125*		*P9D0807*	*04/08/19*	*04/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2.27**	1.03	mg/kg dry	1	P9D0810	04/08/19	04/09/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9D0502	04/05/19	04/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P9D0501	04/05/19	04/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*120 %*	*70-130*		*P9D0501*	*04/05/19*	*04/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	04/05/19	04/05/19	calc	

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Project: XTO Christmas C #9
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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 P9D0807 - General Preparation (GC)										
Blank (P9D0807-BLK1)				Prepared & Analyzed: 04/08/19						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.0605*		*"*	*0.0600*		*101*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0516*		*"*	*0.0600*		*86.0*	*75-125*			
LCS (P9D0807-BS1)				Prepared & Analyzed: 04/08/19						
Benzene	0.119	0.00100	mg/kg wet	0.100		119	70-130			
Toluene	0.118	0.00100	"	0.100		118	70-130			
Ethylbenzene	0.106	0.00100	"	0.100		106	70-130			
Xylene (p/m)	0.226	0.00200	"	0.200		113	70-130			
Xylene (o)	0.116	0.00100	"	0.100		116	70-130			
Surrogate: 1,4-Difluorobenzene	*0.0604*		*"*	*0.0600*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0652*		*"*	*0.0600*		*109*	*75-125*			
LCS Dup (P9D0807-BSD1)				Prepared & Analyzed: 04/08/19						
Benzene	0.118	0.00100	mg/kg wet	0.100		118	70-130	1.03	20	
Toluene	0.115	0.00100	"	0.100		115	70-130	2.46	20	
Ethylbenzene	0.108	0.00100	"	0.100		108	70-130	1.71	20	
Xylene (p/m)	0.227	0.00200	"	0.200		114	70-130	0.471	20	
Xylene (o)	0.119	0.00100	"	0.100		119	70-130	2.29	20	
Surrogate: 4-Bromofluorobenzene	*0.0678*		*"*	*0.0600*		*113*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0591*		*"*	*0.0600*		*98.4*	*75-125*			
Calibration Blank (P9D0807-CCB1)				Prepared & Analyzed: 04/08/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.0528*		*"*	*0.0600*		*87.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0617*		*"*	*0.0600*		*103*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0807 - General Preparation (GC)										
Calibration Blank (P9D0807-CCB2)				Prepared & Analyzed: 04/08/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.0525*		*"*	*0.0600*		*87.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0622*		*"*	*0.0600*		*104*	*75-125*			
Calibration Check (P9D0807-CCV1)				Prepared & Analyzed: 04/08/19						
Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.117	0.00100	"	0.100		117	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 4-Bromofluorobenzene	*0.0632*		*"*	*0.0600*		*105*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0537*		*"*	*0.0600*		*89.6*	*75-125*			
Calibration Check (P9D0807-CCV2)				Prepared & Analyzed: 04/08/19						
Benzene	0.111	0.00100	mg/kg wet	0.100		111	80-120			
Toluene	0.114	0.00100	"	0.100		114	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.223	0.00200	"	0.200		112	80-120			
Xylene (o)	0.111	0.00100	"	0.100		111	80-120			
Surrogate: 4-Bromofluorobenzene	*0.0604*		*"*	*0.0600*		*101*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0596*		*"*	*0.0600*		*99.3*	*75-125*			
Calibration Check (P9D0807-CCV3)				Prepared: 04/08/19 Analyzed: 04/09/19						
Benzene	0.109	0.00100	mg/kg wet	0.100		109	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.216	0.00200	"	0.200		108	80-120			
Xylene (o)	0.119	0.00100	"	0.100		119	80-120			
Surrogate: 1,4-Difluorobenzene	*0.0510*		*"*	*0.0600*		*85.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0542*		*"*	*0.0600*		*90.4*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0807 - General Preparation (GC)										
Matrix Spike (P9D0807-MS1)	**Source: 9D04005-01**			Prepared: 04/08/19 Analyzed: 04/09/19						
Benzene	0.0878	0.00104	mg/kg dry	0.104	ND	84.3	80-120			
Toluene	0.0871	0.00104	"	0.104	ND	83.6	80-120			
Ethylbenzene	0.102	0.00104	"	0.104	ND	98.2	80-120			
Xylene (p/m)	0.162	0.00208	"	0.208	ND	77.7	80-120			QM-05
Xylene (o)	0.0858	0.00104	"	0.104	ND	82.4	80-120			
Surrogate: 1,4-Difluorobenzene	*0.0673*		*"*	*0.0625*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0677*		*"*	*0.0625*		*108*	*75-125*			
Matrix Spike Dup (P9D0807-MSD1)	**Source: 9D04005-01**			Prepared: 04/08/19 Analyzed: 04/09/19						
Benzene	0.101	0.00104	mg/kg dry	0.104	ND	96.8	80-120	13.8	20	
Toluene	0.101	0.00104	"	0.104	ND	96.6	80-120	14.4	20	
Ethylbenzene	0.124	0.00104	"	0.104	ND	119	80-120	19.3	20	
Xylene (p/m)	0.194	0.00208	"	0.208	ND	93.1	80-120	18.1	20	
Xylene (o)	0.103	0.00104	"	0.104	ND	98.6	80-120	17.9	20	
Surrogate: 1,4-Difluorobenzene	*0.0676*		*"*	*0.0625*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0653*		*"*	*0.0625*		*105*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0502 - * DEFAULT PREP *** **										
Blank (P9D0502-BLK1)				Prepared & Analyzed: 04/05/19						
% Moisture	ND	0.1	%							
Duplicate (P9D0502-DUP1)		**Source: 9D04001-10**		Prepared & Analyzed: 04/05/19						
% Moisture	18.0	0.1	%		17.0			5.71	20	
Duplicate (P9D0502-DUP2)		**Source: 9D04003-12**		Prepared & Analyzed: 04/05/19						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P9D0502-DUP3)		**Source: 9D04007-19**		Prepared & Analyzed: 04/05/19						
% Moisture	7.0	0.1	%		8.0			13.3	20	
Batch P9D0809 - * DEFAULT PREP *** **										
Blank (P9D0809-BLK1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9D0809-BS1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	401	1.00	mg/kg wet	400		100	80-120			
LCS Dup (P9D0809-BSD1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	407	1.00	mg/kg wet	400		102	80-120	1.38	20	
Calibration Blank (P9D0809-CCB1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9D0809-CCB2)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	0.00		mg/kg wet							

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0809 - * DEFAULT PREP *** **										
Calibration Check (P9D0809-CCV1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	20.6	0.100	mg/kg wet	20.0		103	0-200			
Calibration Check (P9D0809-CCV2)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	20.2	0.100	mg/kg wet	20.0		101	0-200			
Calibration Check (P9D0809-CCV3)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	20.7	0.100	mg/kg wet	20.0		103	0-200			
Matrix Spike (P9D0809-MS1)		**Source: 9D02008-09**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	1220	1.06	mg/kg dry	532	606	115	80-120			
Matrix Spike (P9D0809-MS2)		**Source: 9D04001-07**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	33000	61.0	mg/kg dry	6100	27000	98.3	80-120			
Matrix Spike Dup (P9D0809-MSD1)		**Source: 9D02008-09**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	1160	1.06	mg/kg dry	532	606	104	80-120	5.06	20	
Matrix Spike Dup (P9D0809-MSD2)		**Source: 9D04001-07**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	33500	61.0	mg/kg dry	6100	27000	107	80-120	1.52	20	
Batch P9D0810 - * DEFAULT PREP *** **										
Blank (P9D0810-BLK1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9D0810-BS1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	408	1.00	mg/kg wet	400		102	80-120			

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 P9D0810 - * DEFAULT PREP *** **										
LCS Dup (P9D0810-BSD1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	407	1.00	mg/kg wet	400		102	80-120	0.265	20	
Calibration Blank (P9D0810-CCB1)				Prepared: 04/08/19 Analyzed: 04/10/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9D0810-CCB2)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9D0810-CCV1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	207	1.00	mg/kg wet	200		103	0-200			
Calibration Check (P9D0810-CCV2)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	208	1.00	mg/kg wet	200		104	0-200			
Calibration Check (P9D0810-CCV3)				Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	206	1.00	mg/kg wet	200		103	0-200			
Matrix Spike (P9D0810-MS1)		**Source: 9D04003-07**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	1010	1.11	mg/kg dry	556	491	93.3	80-120			
Matrix Spike (P9D0810-MS2)		**Source: 9D04006-05**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	24100	53.2	mg/kg dry	5320	18200	111	80-120			
Matrix Spike Dup (P9D0810-MSD1)		**Source: 9D04003-07**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	1020	1.11	mg/kg dry	556	491	94.6	80-120	0.761	20	
Matrix Spike Dup (P9D0810-MSD2)		**Source: 9D04006-05**		Prepared: 04/08/19 Analyzed: 04/09/19						
Chloride	24400	53.2	mg/kg dry	5320	18200	118	80-120	1.44	20	

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0406 - TX 1005										
Blank (P9D0406-BLK1)				Prepared & Analyzed: 04/04/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*121*		*"*	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*67.0*		*"*	*50.0*		*134*	*70-130*			*S-09, S-GC*
LCS (P9D0406-BS1)				Prepared & Analyzed: 04/04/19						
C6-C12	876	25.0	mg/kg wet	1000		87.6	75-125			
>C12-C28	1250	25.0	"	1000		125	75-125			
Surrogate: 1-Chlorooctane	*126*		*"*	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*58.6*		*"*	*50.0*		*117*	*70-130*			
LCS Dup (P9D0406-BSD1)				Prepared & Analyzed: 04/04/19						
C6-C12	877	25.0	mg/kg wet	1000		87.7	75-125	0.149	20	
>C12-C28	1220	25.0	"	1000		122	75-125	2.13	20	
Surrogate: 1-Chlorooctane	*126*		*"*	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*60.0*		*"*	*50.0*		*120*	*70-130*			
Calibration Blank (P9D0406-CCB1)				Prepared & Analyzed: 04/04/19						
C6-C12	9.64		mg/kg wet							
>C12-C28	6.66		"							
Surrogate: 1-Chlorooctane	*120*		*"*	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*67.1*		*"*	*50.0*		*134*	*70-130*			*S-09, S-GC*
Calibration Blank (P9D0406-CCB2)				Prepared & Analyzed: 04/04/19						
C6-C12	9.97		mg/kg wet							
>C12-C28	16.1		"							
Surrogate: 1-Chlorooctane	*115*		*"*	*100*		*115*	*70-130*			
Surrogate: o-Terphenyl	*63.1*		*"*	*50.0*		*126*	*70-130*			

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0406 - TX 1005										
Calibration Check (P9D0406-CCV1)				Prepared & Analyzed: 04/04/19						
C6-C12	480	25.0	mg/kg wet	500		96.0	85-115			
>C12-C28	559	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	*126*		*"*	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*62.0*		*"*	*50.0*		*124*	*70-130*			
Calibration Check (P9D0406-CCV2)				Prepared & Analyzed: 04/04/19						
C6-C12	485	25.0	mg/kg wet	500		97.0	85-115			
>C12-C28	539	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	*122*		*"*	*100*		*122*	*70-130*			
Surrogate: o-Terphenyl	*57.7*		*"*	*50.0*		*115*	*70-130*			
Calibration Check (P9D0406-CCV3)				Prepared: 04/04/19 Analyzed: 04/05/19						
C6-C12	442	25.0	mg/kg wet	500		88.3	85-115			
>C12-C28	490	25.0	"	500		98.1	85-115			
Surrogate: 1-Chlorooctane	*112*		*"*	*100*		*112*	*70-130*			
Surrogate: o-Terphenyl	*53.5*		*"*	*50.0*		*107*	*70-130*			
Matrix Spike (P9D0406-MS1)	**Source: 9D03009-06**			Prepared: 04/04/19 Analyzed: 04/05/19						
C6-C12	889	26.3	mg/kg dry	1050	17.3	82.8	75-125			
>C12-C28	3070	26.3	"	1050	1420	157	75-125			QM-07
Surrogate: 1-Chlorooctane	*129*		*"*	*105*		*123*	*70-130*			
Surrogate: o-Terphenyl	*58.6*		*"*	*52.6*		*111*	*70-130*			
Matrix Spike Dup (P9D0406-MSD1)	**Source: 9D03009-06**			Prepared: 04/04/19 Analyzed: 04/05/19						
C6-C12	992	26.3	mg/kg dry	1050	17.3	92.6	75-125	11.2	20	
>C12-C28	3380	26.3	"	1050	1420	187	75-125	17.3	20	QM-07
Surrogate: 1-Chlorooctane	*119*		*"*	*105*		*113*	*70-130*			
Surrogate: o-Terphenyl	*63.8*		*"*	*52.6*		*121*	*70-130*			

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0501 - TX 1005										
Blank (P9D0501-BLK1)				Prepared & Analyzed: 04/05/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*129*		*"*	*100*		*129*	*70-130*			
Surrogate: o-Terphenyl	*71.2*		*"*	*50.0*		*142*	*70-130*			*S-09*
LCS (P9D0501-BS1)				Prepared & Analyzed: 04/05/19						
C6-C12	857	25.0	mg/kg wet	1000		85.7	75-125			
>C12-C28	1240	25.0	"	1000		124	75-125			
Surrogate: 1-Chlorooctane	*125*		*"*	*100*		*125*	*70-130*			
Surrogate: o-Terphenyl	*60.6*		*"*	*50.0*		*121*	*70-130*			
LCS Dup (P9D0501-BSD1)				Prepared & Analyzed: 04/05/19						
C6-C12	891	25.0	mg/kg wet	1000		89.1	75-125	3.93	20	
>C12-C28	1240	25.0	"	1000		124	75-125	0.377	20	
Surrogate: 1-Chlorooctane	*125*		*"*	*100*		*125*	*70-130*			
Surrogate: o-Terphenyl	*60.9*		*"*	*50.0*		*122*	*70-130*			
Calibration Blank (P9D0501-CCB1)				Prepared & Analyzed: 04/05/19						
C6-C12	12.8		mg/kg wet							
>C12-C28	10.4		"							
Surrogate: 1-Chlorooctane	*122*		*"*	*100*		*122*	*70-130*			
Surrogate: o-Terphenyl	*68.2*		*"*	*50.0*		*136*	*70-130*			*S-09*
Calibration Blank (P9D0501-CCB2)				Prepared & Analyzed: 04/05/19						
C6-C12	7.61		mg/kg wet							
>C12-C28	13.4		"							
Surrogate: 1-Chlorooctane	*110*		*"*	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*60.7*		*"*	*50.0*		*121*	*70-130*			

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9D0501 - TX 1005										
Calibration Check (P9D0501-CCV1)				Prepared & Analyzed: 04/05/19						
C6-C12	436	25.0	mg/kg wet	500		87.2	85-115			
>C12-C28	528	25.0	"	500		106	85-115			
Surrogate: 1-Chlorooctane	*119*		*"*	*100*		*119*	*70-130*			
Surrogate: o-Terphenyl	*57.7*		*"*	*50.0*		*115*	*70-130*			
Calibration Check (P9D0501-CCV2)				Prepared & Analyzed: 04/05/19						
C6-C12	480	25.0	mg/kg wet	500		96.0	85-115			
>C12-C28	493	25.0	"	500		98.7	85-115			
Surrogate: 1-Chlorooctane	*87.5*		*"*	*100*		*87.5*	*70-130*			
Surrogate: o-Terphenyl	*42.6*		*"*	*50.0*		*85.2*	*70-130*			
Calibration Check (P9D0501-CCV3)				Prepared & Analyzed: 04/05/19						
C6-C12	481	25.0	mg/kg wet	500		96.3	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	*99.1*		*"*	*100*		*99.1*	*70-130*			
Surrogate: o-Terphenyl	*44.3*		*"*	*50.0*		*88.6*	*70-130*			
Matrix Spike (P9D0501-MS1)		**Source: 9D04003-09**		Prepared & Analyzed: 04/05/19						
C6-C12	1210	27.8	mg/kg dry	1110	ND	109	75-125			
>C12-C28	1280	27.8	"	1110	12.3	114	75-125			
Surrogate: 1-Chlorooctane	*94.0*		*"*	*111*		*84.6*	*70-130*			
Surrogate: o-Terphenyl	*36.7*		*"*	*55.6*		*66.0*	*70-130*			*S-GC*
Matrix Spike Dup (P9D0501-MSD1)		**Source: 9D04003-09**		Prepared & Analyzed: 04/05/19						
C6-C12	1320	27.8	mg/kg dry	1110	ND	119	75-125	8.96	20	
>C12-C28	1260	27.8	"	1110	12.3	112	75-125	1.64	20	
Surrogate: 1-Chlorooctane	*93.8*		*"*	*111*		*84.4*	*70-130*			
Surrogate: o-Terphenyl	*37.1*		*"*	*55.6*		*66.8*	*70-130*			*S-GC*

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
S-09	Surrogate recovery limits have been exceeded.
ROI	Received on Ice
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 4/15/2019

Brent Barron, Laboratory Director/Technical Director

Nº 0629

CHAIN-OF-CUSTODY

Page 27 of 27

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 4/4/19 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 9D04003

PROJECT LOCATION OR NAME: XTO Christmas C #9

LAI PROJECT #: 18-0144-01 COLLECTOR: JD

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE: Time zone/State: MST

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐ M300	FIELD NOTES
DP-10.2 West Sidewall (3')		4/1/19	13:30	S	1				X		X	X	X	X	X														
DP-10.1 Bottom (6')		4/1/19	14:29																										
DP-10.3 South Sidewall (3')		4/1/19	13:59																										
DP-10.4 North Sidewall (3')		4/2/19	13:38																										
DP-8.3 North Sidewall (3')			9:43																										
DP-8.1 Bottom (6')			9:45																										
DP-8.2 South Sidewall (3')			9:46																										
~~DP-8.3 North Sidewall (3')~~																													
DP-5.1 Bottom (2')			10:50																										
DP-5.2 South Sidewall (1')			10:55																										
DP-5.3 North Sidewall (1')			10:56																										
~~DP-10.~~ DP-3.2 South Sidewall (0.5')		4/3/19	8:56																										
DP-3.4 East Sidewall (0.5')		"	9:55	"	"																								
TOTAL																													

RELINQUISHED BY:(Signature) DATE/TIME 4/4/19 9:46 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME 4/4/19 9:46 RECEIVED BY: (Signature) Teresa Rhodes

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: PBEL

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: -1.0-1.0 CF+1 THERM#: L2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

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

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO Christmas C #9

Project Number: 18-0144-01

Location: None Given

Lab Order Number: 9E03001

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-18-9

Report Date: 05/08/19

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-10.2 (5')	9E03001-01	Soil	05/02/19 12:26	05-03-2019 09:28
DP-10.3 (5')	9E03001-02	Soil	05/02/19 12:33	05-03-2019 09:28
DP-10.4 (5')	9E03001-03	Soil	05/02/19 12:44	05-03-2019 09:28
DP-8.2 (5')	9E03001-04	Soil	05/02/19 12:52	05-03-2019 09:28
DP-5.3 (2')	9E03001-05	Soil	05/02/19 13:07	05-03-2019 09:28
DP-5.2 (2')	9E03001-06	Soil	05/02/19 13:14	05-03-2019 09:28
DP-3.2 (1')	9E03001-07	Soil	05/02/19 13:19	05-03-2019 09:28
DP-3.4 (1')	9E03001-08	Soil	05/02/19 13:27	05-03-2019 09:28

DP-10.2 (5')

9E03001-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**8.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.4 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

DP-10.3 (5')

9E03001-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**25.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	33.3	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	33.3	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	33.3	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*109 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	33.3	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

Larson & Associates, Inc.
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Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-10.4 (5')

9E03001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**542**	1.14	mg/kg dry	1	P9E0708	05/07/19	05/08/19	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*99.4 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

Larson & Associates, Inc.
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Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-8.2 (5')

9E03001-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**10.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*116 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

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Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-5.3 (2')

9E03001-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**18.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.5	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	30.5	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	30.5	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*114 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	30.5	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

DP-5.2 (2')

9E03001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**10.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.2 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

DP-3.2 (1')

9E03001-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**21.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	31.6	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	31.6	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	31.6	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*87.6 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.3 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	31.6	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

DP-3.4 (1')

9E03001-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**1.0**	0.1	%	1	P9E0603	05/06/19	05/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P9E0305	05/03/19	05/03/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.7 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*93.8 %*	*70-130*		*P9E0305*	*05/03/19*	*05/03/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	05/03/19	05/03/19	calc	

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 P9E0603 - * DEFAULT PREP *** **										
Blank (P9E0603-BLK1)				Prepared & Analyzed: 05/06/19						
% Moisture	ND	0.1	%							
Duplicate (P9E0603-DUP1)		**Source: 9E02007-26**		Prepared & Analyzed: 05/06/19						
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P9E0603-DUP2)		**Source: 9E03001-08**		Prepared & Analyzed: 05/06/19						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P9E0603-DUP3)		**Source: 9E03004-09**		Prepared & Analyzed: 05/06/19						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Batch P9E0708 - * DEFAULT PREP *** **										
Blank (P9E0708-BLK1)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9E0708-BS1)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	411	1.00	mg/kg wet	400		103	80-120			
LCS Dup (P9E0708-BSD1)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	412	1.00	mg/kg wet	400		103	80-120	0.209	20	
Calibration Blank (P9E0708-CCB1)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9E0708-CCB2)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	0.00		mg/kg wet							

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E0708 - * DEFAULT PREP *** **										
Calibration Check (P9E0708-CCV1)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	208	1.00	mg/kg wet	200		104	0-200			
Calibration Check (P9E0708-CCV2)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	210	1.00	mg/kg wet	200		105	0-200			
Calibration Check (P9E0708-CCV3)				Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	207	1.00	mg/kg wet	200		103	0-200			
Matrix Spike (P9E0708-MS1)		**Source: 9E02007-21**		Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	11800	28.4	mg/kg dry	2840	8950	101	80-120			
Matrix Spike (P9E0708-MS2)		**Source: 9E03001-03**		Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	1460	1.14	mg/kg dry	568	542	161	80-120			
Matrix Spike Dup (P9E0708-MSD1)		**Source: 9E02007-21**		Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	11800	28.4	mg/kg dry	2840	8950	99.0	80-120	0.604	20	
Matrix Spike Dup (P9E0708-MSD2)		**Source: 9E03001-03**		Prepared: 05/07/19 Analyzed: 05/08/19						
Chloride	1450	1.14	mg/kg dry	568	542	160	80-120	0.271	20	

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E0305 - TX 1005										
Blank (P9E0305-BLK1)				Prepared & Analyzed: 05/03/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*111*		*"*	*100*		*111*	*70-130*			
Surrogate: o-Terphenyl	*59.8*		*"*	*50.0*		*120*	*70-130*			
LCS (P9E0305-BS1)				Prepared & Analyzed: 05/03/19						
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125			
>C12-C28	1070	25.0	"	1000		107	75-125			
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*50.4*		*"*	*50.0*		*101*	*70-130*			
LCS Dup (P9E0305-BSD1)				Prepared & Analyzed: 05/03/19						
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125	0.479	20	
>C12-C28	1080	25.0	"	1000		108	75-125	0.987	20	
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*51.2*		*"*	*50.0*		*102*	*70-130*			
Calibration Blank (P9E0305-CCB1)				Prepared & Analyzed: 05/03/19						
C6-C12	8.43		mg/kg wet							
>C12-C28	7.54		"							
Surrogate: 1-Chlorooctane	*110*		*"*	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*59.4*		*"*	*50.0*		*119*	*70-130*			
Calibration Blank (P9E0305-CCB2)				Prepared: 05/03/19 Analyzed: 05/04/19						
C6-C12	9.18		mg/kg wet							
>C12-C28	14.7		"							
Surrogate: 1-Chlorooctane	*110*		*"*	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*59.1*		*"*	*50.0*		*118*	*70-130*			

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E0305 - TX 1005										
Calibration Check (P9E0305-CCV1)				Prepared & Analyzed: 05/03/19						
C6-C12	550	25.0	mg/kg wet	500		110	85-115			
>C12-C28	486	25.0	"	500		97.3	85-115			
Surrogate: 1-Chlorooctane	*107*		*"*	*100*		*107*	*70-130*			
Surrogate: o-Terphenyl	*52.0*		*"*	*50.0*		*104*	*70-130*			
Calibration Check (P9E0305-CCV2)				Prepared: 05/03/19 Analyzed: 05/04/19						
C6-C12	550	25.0	mg/kg wet	500		110	85-115			
>C12-C28	508	25.0	"	500		102	85-115			
Surrogate: 1-Chlorooctane	*112*		*"*	*100*		*112*	*70-130*			
Surrogate: o-Terphenyl	*54.0*		*"*	*50.0*		*108*	*70-130*			
Calibration Check (P9E0305-CCV3)				Prepared: 05/03/19 Analyzed: 05/04/19						
C6-C12	575	25.0	mg/kg wet	500		115	85-115			
>C12-C28	478	25.0	"	500		95.6	85-115			
Surrogate: 1-Chlorooctane	*129*		*"*	*100*		*129*	*70-130*			
Surrogate: o-Terphenyl	*56.9*		*"*	*50.0*		*114*	*70-130*			
Duplicate (P9E0305-DUP1)	**Source: 9E03003-04**			Prepared: 05/03/19 Analyzed: 05/04/19						
C6-C12	186	25.5	mg/kg dry		183			1.40	20	
>C12-C28	2020	25.5	"		1930			4.52	20	
Surrogate: 1-Chlorooctane	*115*		*"*	*102*		*112*	*70-130*			
Surrogate: o-Terphenyl	*63.1*		*"*	*51.0*		*124*	*70-130*			

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: XTO Christmas C #9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Notes and Definitions

ROI	Received on Ice
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 5/8/2019

Brent Barron, Laboratory Director/Technical Director

№ 0637

CHAIN-OF-CUSTOD

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 5/3/19 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 9E03001

PROJECT LOCATION OR NAME: XTO Christmas C#9

LAI PROJECT #: 18-0144-01 COLLECTOR: TD

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESSERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 | DIESEL - MOD 8015 X | OIL - MOD 8015 | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ | 8081 PESTICIDES ☐ | 8082 PCBS ☐ | HOLDPAH ☐ | 8151 HERBICIDES ☐ | TBLP - METALS (RCRA) ☐ | TCLP - PEST ☐ HERB ☐ | TCLP VOC ☐ | TOTAL METALS (RCRA) ☐ | Semi-VOC ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ | OTHER LIST ☐ | RCI ☐ TOX ☐ | TCLP ☐ | TDS ☐ TSS ☐ | FLASHPOINT ☐ | pH ☐ | % MOISTURE ☐ | EXPLOSIVES ☐ | HEXAVALENT CHROMIUM ☐ | CHLORIDES ☒ | CYANIDE ☐ | PECHLORATE ☐ | ANIONS ☐ | ALKALINITY ☐ | M300

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	FIELD NOTES
DP-10.2(5')	1	5/2/19	12:26	S	1				X		
DP-10.3(5')	2	"	12:33	"	"				"		
DP-10.4(5')	3	"	12:44	"	"				"		
DP-8.2(5')	4	"	12:52	"	"				"		
DP-5.3(2')	5	"	13:07	"	"				"		
DP-5.2(2')	6	"	13:14	"	"				"		
DP-3.2(1')	7	"	13:19	"	"				"		
DP-3.4(1')	8	"	13:27	"	"				"		
TOTAL					8						

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) TB DATE/TIME 5/3/19 9:21 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY:

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY: 1.03 CF+1
RECEIVING TEMP: 4.03 THERM#: L2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Christmas C#9

Project Number: 18-0144-01

Location:

Lab Order Number: 9F04011

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-18-9

Report Date: 06/06/19

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Christmas C#9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Backfill Composite 1	9F04011-01	Soil	06/04/19 10:19	06-04-2019 16:33
Backfill Composite 2	9F04011-02	Soil	06/04/19 10:21	06-04-2019 16:33
Backfill Composite 3	9F04011-03	Soil	06/04/19 10:22	06-04-2019 16:33
Backfill Composite 4	9F04011-04	Soil	06/04/19 10:23	06-04-2019 16:33
Backfill Composite 5	9F04011-05	Soil	06/04/19 10:24	06-04-2019 16:33
Backfill Composite 6	9F04011-06	Soil	06/04/19 10:25	06-04-2019 16:33
Backfill Composite 7	9F04011-07	Soil	06/04/19 10:26	06-04-2019 16:33
Backfill Composite 8	9F04011-08	Soil	06/04/19 10:27	06-04-2019 16:33

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Christmas C#9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Backfill Composite 1

9F04011-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1.38**	1.06	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Christmas C#9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Backfill Composite 2

9F04011-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.09	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Christmas C#9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Backfill Composite 3

9F04011-03 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**1.36**	1.06	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Christmas C#9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Backfill Composite 4

9F04011-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.09	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Christmas C#9	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 18-0144-01	
Midland TX, 79710	Project Manager: Mark Larson	

Backfill Composite 5

9F04011-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3.85**	1.08	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Christmas C#9	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 18-0144-01	
Midland TX, 79710	Project Manager: Mark Larson	

Backfill Composite 6

9F04011-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.09	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Christmas C#9	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 18-0144-01	
Midland TX, 79710	Project Manager: Mark Larson	

Backfill Composite 7

9F04011-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.09	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Christmas C#9	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 18-0144-01	
Midland TX, 79710	Project Manager: Mark Larson	

Backfill Composite 8

9F04011-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1.70**	1.06	mg/kg dry	1	P9F0505	06/05/19	06/05/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9F0506	06/05/19	06/05/19	ASTM D2216	

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 P9F0505 - * DEFAULT PREP *** **										
Blank (P9F0505-BLK1)				Prepared & Analyzed: 06/05/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9F0505-BS1)				Prepared & Analyzed: 06/05/19						
Chloride	197	1.00	mg/kg wet	200		98.5	80-120			
LCS Dup (P9F0505-BSD1)				Prepared & Analyzed: 06/05/19						
Chloride	197	1.00	mg/kg wet	200		98.3	80-120	0.157	20	
Calibration Blank (P9F0505-CCB1)				Prepared & Analyzed: 06/05/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9F0505-CCB2)				Prepared & Analyzed: 06/05/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9F0505-CCV1)				Prepared & Analyzed: 06/05/19						
Chloride	9.64		mg/kg	10.0		96.4	0-200			
Calibration Check (P9F0505-CCV2)				Prepared & Analyzed: 06/05/19						
Chloride	9.82		mg/kg	10.0		98.2	0-200			
Calibration Check (P9F0505-CCV3)				Prepared: 06/05/19 Analyzed: 06/06/19						
Chloride	9.96		mg/kg	10.0		99.6	0-200			
Matrix Spike (P9F0505-MS1)		**Source: 9E29015-08**		Prepared & Analyzed: 06/05/19						
Chloride	13000	30.1	mg/kg dry	3010	10500	81.7	80-120			
Matrix Spike (P9F0505-MS2)		**Source: 9E29016-03**		Prepared: 06/05/19 Analyzed: 06/06/19						
Chloride	3000	13.2	mg/kg dry	1320	1640	103	80-120			

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 P9F0505 - * DEFAULT PREP *** **										
Matrix Spike Dup (P9F0505-MSD1)		**Source: 9E29015-08**		Prepared & Analyzed: 06/05/19						
Chloride	13100	30.1	mg/kg dry	3010	10500	86.5	80-120	1.12	20	
Matrix Spike Dup (P9F0505-MSD2)		**Source: 9E29016-03**		Prepared: 06/05/19 Analyzed: 06/06/19						
Chloride	2990	13.2	mg/kg dry	1320	1640	103	80-120	0.369	20	
Batch P9F0506 - * DEFAULT PREP *** **										
Blank (P9F0506-BLK1)				Prepared & Analyzed: 06/05/19						
% Moisture	ND	0.1	%							
Duplicate (P9F0506-DUP1)		**Source: 9F04012-18**		Prepared & Analyzed: 06/05/19						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P9F0506-DUP2)		**Source: 9F04012-21**		Prepared & Analyzed: 06/05/19						
% Moisture	12.0	0.1	%		12.0			0.00	20	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Christmas C#9
Project Number: 18-0144-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Notes and Definitions

BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 6/6/2019

Brent Barron, Laboratory Director/Technical Director

Nº 0702

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 6/4/2019 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 9F04011

PROJECT LOCATION OR NAME: Christmas C#9

LAI PROJECT #: 18-0144-01 COLLECTOR: RD

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESSERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐ | 300

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
Backfill composite1	1	6/4/19	10:19	S	1					X	X	
Backfill composite2	2		10:21									
Backfill composite3	3		10:22									
Backfill composite4	4		10:23									
Backfill composite5	5		10:24									
Backfill composite6	6		10:25									
Backfill composite7	7		10:26									
Backfill composite 8	8		10:27									
TOTAL	8											

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 6/4/19 4:30 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME 6/4/19 16:30 RECEIVED BY: (Signature) Trista Bledsoe

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: PBGL

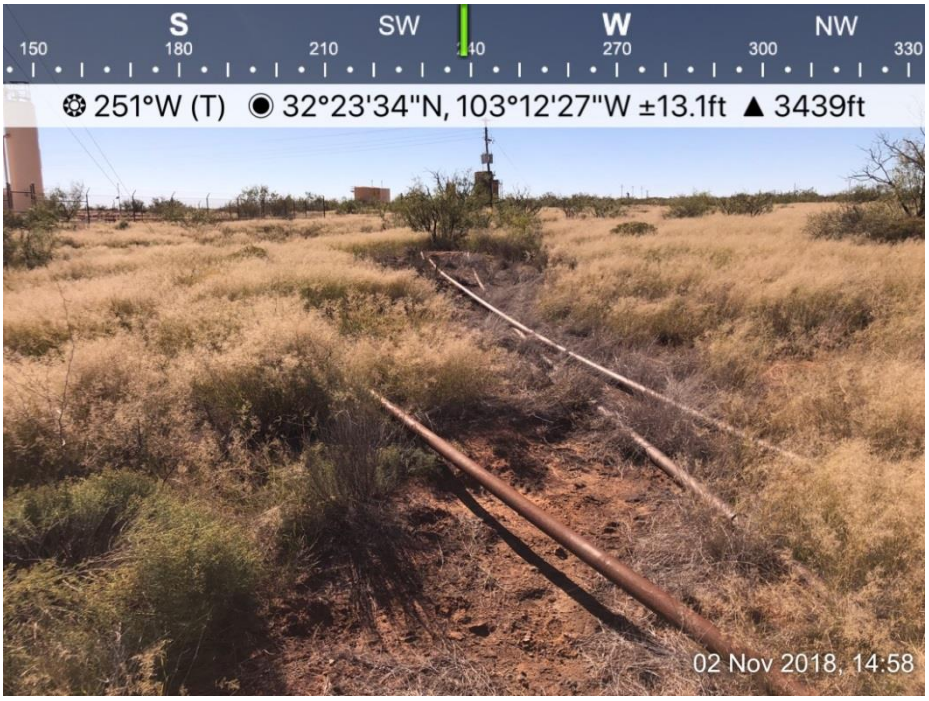
TURN AROUND TIME
NORMAL ☐
1 DAY ☒ RUSH
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY: 22.1 CF+1 L2
RECEIVING TEMP: 21.1 THERM#:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

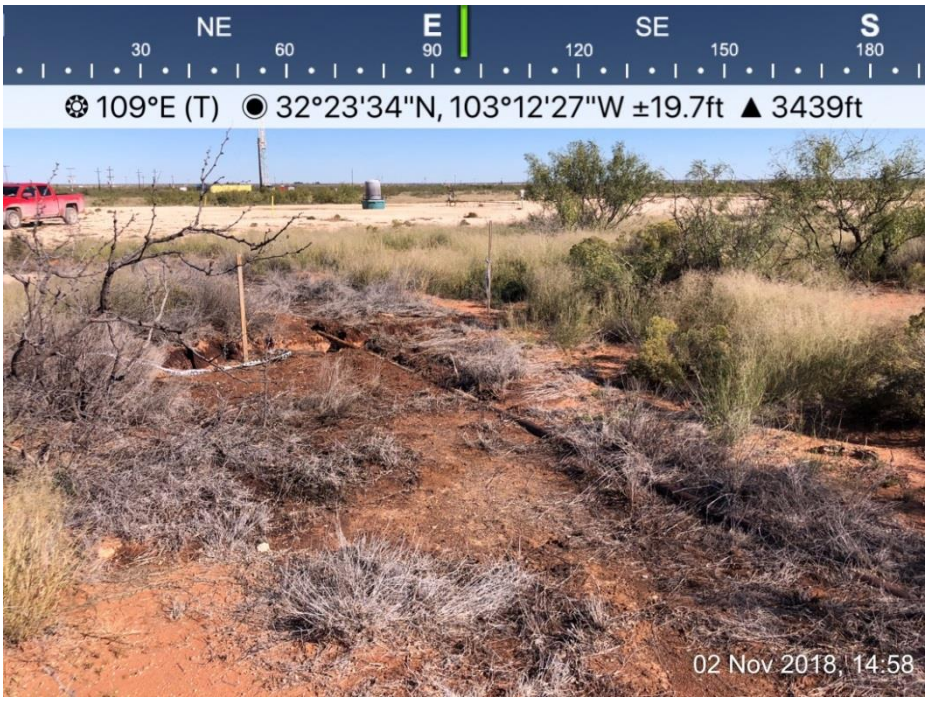
APPENDIX D

Photographs

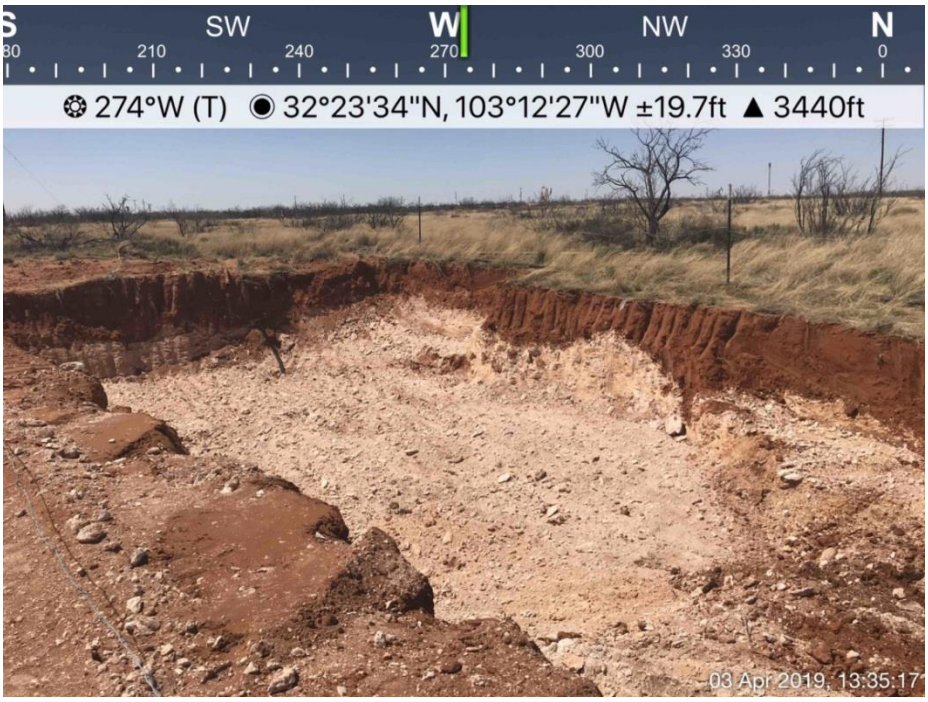
Wellhead and Location Sign, May 30, 2018



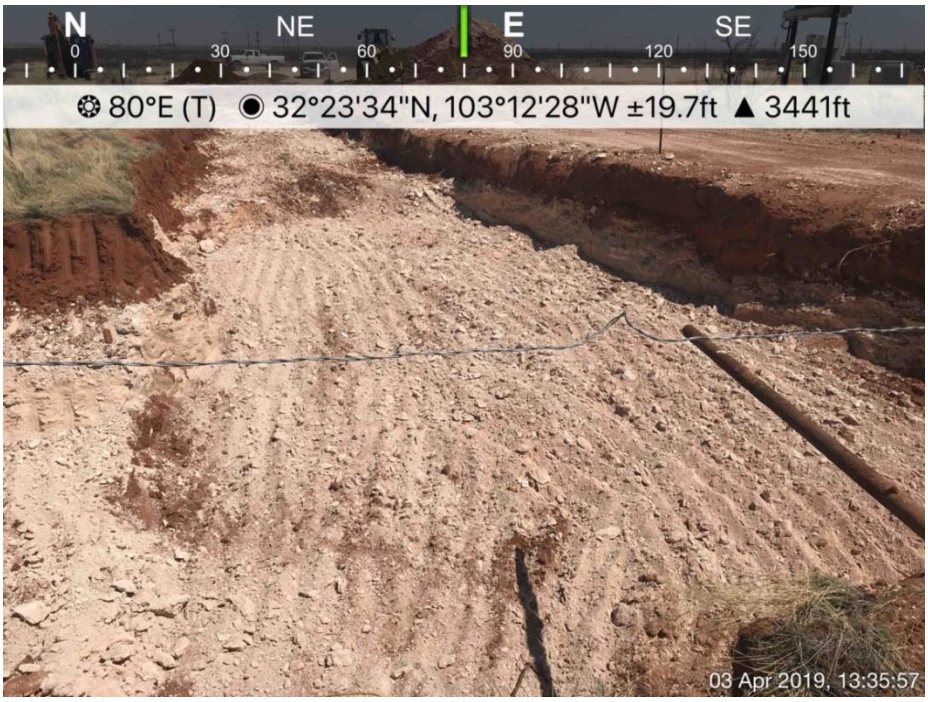
Spill Area Viewing Southwest, November 2, 2018



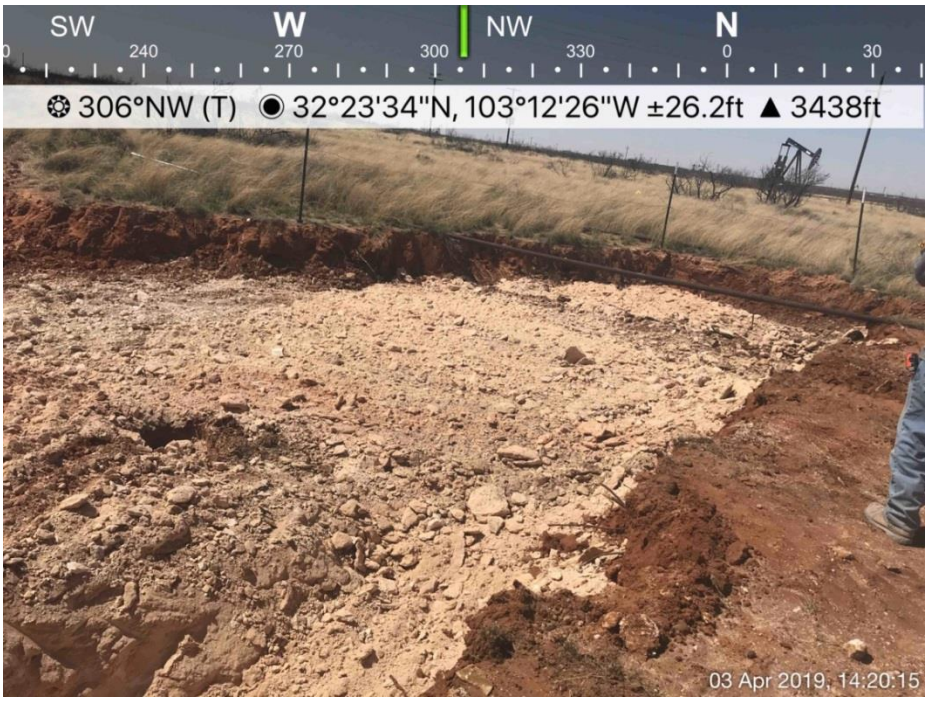
Spill Area Viewing East, November 2, 2018



Excavation Area Viewing West, April 3, 2019



Excavation Area Viewing East, April 3, 2019

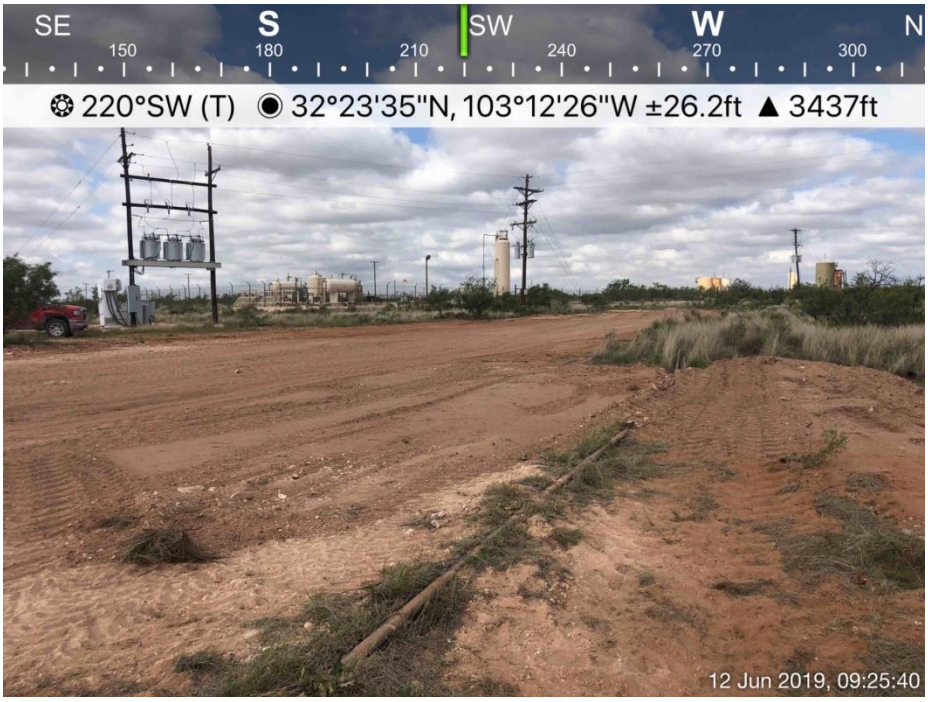


Excavation Area Viewing Northwest, April 3, 2019

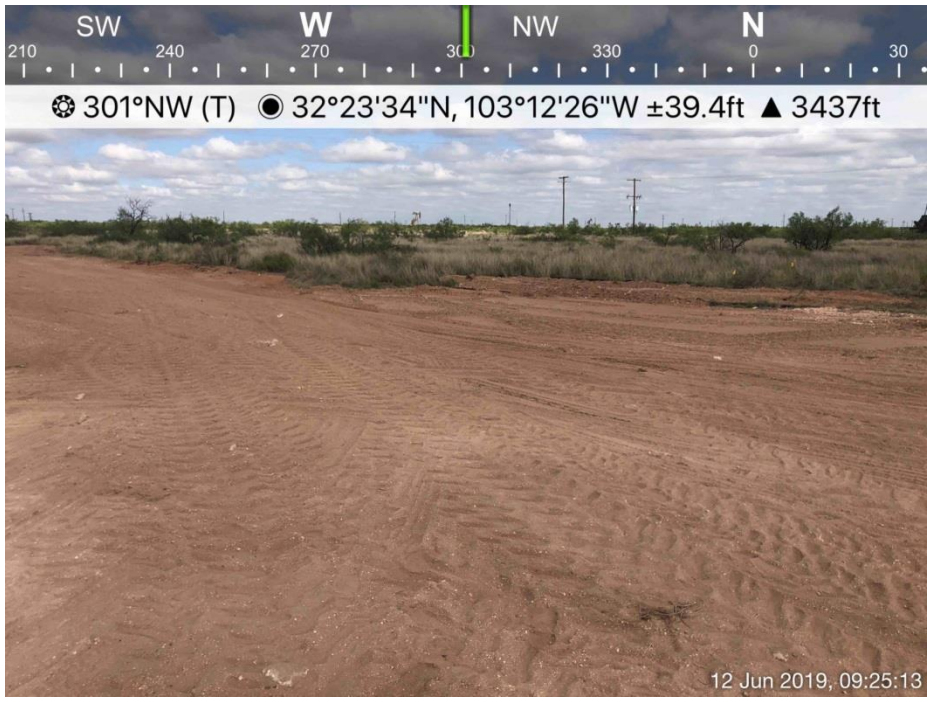
Excavation Area Viewing East, April 3, 2019

Excavation Area Viewing Northeast, April 3, 2019

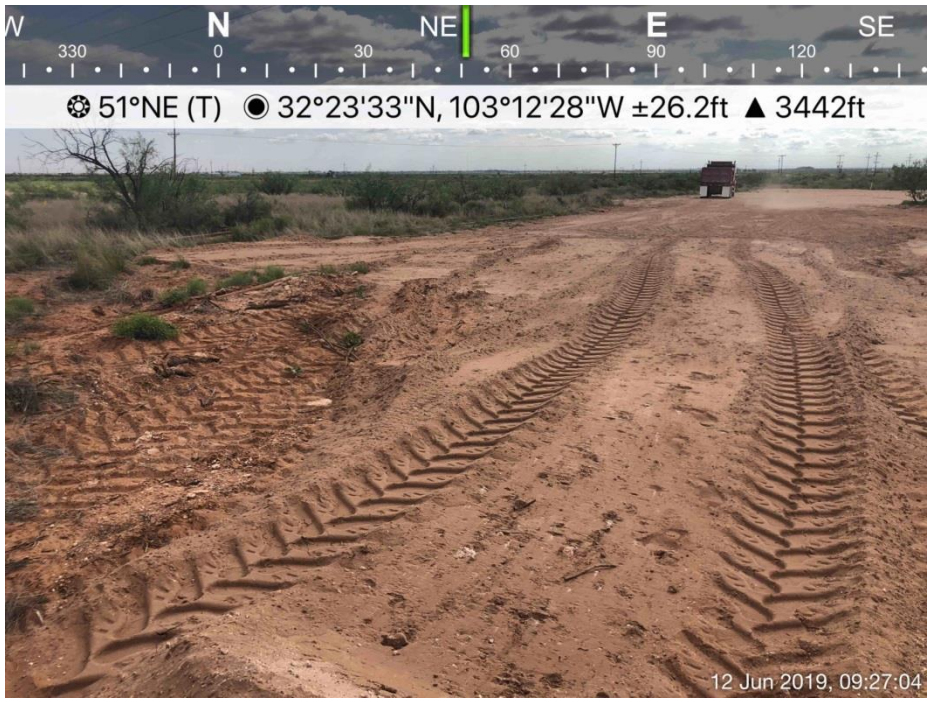
Backfilled Area Viewing West, June 12, 2019



Backfilled Area Viewing Southwest, June 12, 2019



Backfilled Area Viewing Northwest, June 12, 2019



Backfilled Area Viewing Northeast, June 12, 2019

APPENDIX E

Waste Manifests

Dirt Excavation • Environmental • Production Services

MANIFEST

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-2-19

WORK LOCATION(NAME) Christmas C #9 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4.2.19 Signature
Disposal Site	
Dunelawn	Date: 4.2.19 Manuela Carrillo Signature Yardage: 20 Truck #: 34 Driver's Signature

Manifest Number: 0043

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER _____

ADDRESS _____ DATE 4.2.19

WORK LOCATION(NAME) Christmas #9 API # _____

CITY (IF APPLICABLE) _____ COUNTY Lea STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4.2.19 Signature

Disposal Site	
Sundance.	Date: 4.2.19 Signature Yardage: 20 Truck #: 36 Driver's Signature

Manifest Number: 0045

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4.2.19

WORK LOCATION(NAME) Christmas C#9 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
Shelby Pennington 432-557-8996	Date: 4-2-19 Signature

Disposal Site	
Sundance	Date: 4-2-19 Signature Yardage: 20 Truck #: 34 Driver's Signature

Manifest Number: 0044

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO ENERGY CUSTOMER _____

ADDRESS _____ DATE 4-2-19

WORK LOCATION(NAME) CHRISTMAS C#9 API # _____

CITY (IF APPLICABLE) _____ COUNTY _____ STATE _____

Facility Contact

Shelby Pennington - 432-571-8276
cell 281-723-9353
Thm olsen 432-664-4804

Date: 4-2-19
Signature

Disposal Site

Sun dance

Date: 4-2-19 Ruben Gonzalez
Signature

Yardage: 20

Truck #: 031

Ruben Gonzalez
Driver's Signature

Manifest Number: 0008

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-2-19

WORK LOCATION(NAME) CHRISTMAS C#9 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-2-19 Signature
Disposal Site	
SUN Dance	Date: 4-2-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 31 Ruben Gonzalez Driver's Signature

Manifest Number: 0009

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-2-19

WORK LOCATION(NAME) CHRISTMAS C #9 API #

CITY (IF APPLICABLE) COUNTY LEA STATE NM

Facility Contact

Shelby Pennington 432-571-8276

Date: 4-2-19

E. Galende
Signature

Disposal Site

Sun Dance

Date: 4-2-19 Ruben Gonzalez
Signature

Yardage: 20

Truck #: 031

Ruben Gonzalez
Driver's Signature

Manifest Number: 0010

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER _____

ADDRESS _____ DATE 4-2-19

WORK LOCATION(NAME) CHRISTMAS C#9 API # _____

CITY (IF APPLICABLE) _____ COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-2-19 Signature
Disposal Site	
Sun Dance	Date: 4-2-19 Signature Ruben Gonzalez Yardage: 20 Truck #: 31 Driver's Signature Ruben Gonzalez

Manifest Number: 0011

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER _____

ADDRESS _____ DATE 4-3-19

WORK LOCATION(NAME) CHRISTMAS C#9 API # _____

CITY (IF APPLICABLE) _____ COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-3-19 Signature
Disposal Site	
Sun Dance	Date: 4-3-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 031 Ruben Gonzales Driver's Signature

Manifest Number: 0012

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER _____

ADDRESS _____ DATE 4-3-19

WORK LOCATION(NAME) CHRISTMAS C #9 API # _____

CITY (IF APPLICABLE) _____ COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-3-19 Signature
Disposal Site	
Sun Dance	Date: 4-3-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 031 Ruben Gonzalez Driver's Signature

Manifest Number: 0013

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER _____

ADDRESS _____ DATE 4-3-19

WORK LOCATION(NAME) CHRISTMAS C#9 API # _____

CITY (IF APPLICABLE) _____ COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-3-19 Signature
Disposal Site	
Sun Dance	Date: 4-3-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 031 Ruben Gonzalez Driver's Signature

Manifest Number: 0014

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-3-19

WORK LOCATION(NAME) CHRISTMAS C #9 API #

CITY (IF APPLICABLE) COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-3-19 Signature
Disposal Site	
Sun Dance	Date: 4-3-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 31 Ruben Gonzalez Driver's Signature

Manifest Number: 0015

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4.3.19

WORK LOCATION(NAME) Christmas CG API #

CITY (IF APPLICABLE) COUNTY Lea STATE Hobbs

Facility Contact	
Shelby Pennington 432-571-8274	Date: 4.3.19 Signature

Disposal Site	
Sundance	Date: 4.3.19 Manuela Carrillo Signature Yardage: 20 Truck #: 34 Manuela Carrillo Driver's Signature

Manifest Number: 0048

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4.3.19

WORK LOCATION(NAME) Christmas C 9 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-3-19 Signature
Disposal Site	
Sundance	Date: 4.3.19 Signature Yardage: 20 Truck #: 34 Driver's Signature

Manifest Number: 0046

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER Centennial CUSTOMER

ADDRESS DATE 4.3.19

WORK LOCATION(NAME) Merchant Livestock 23 API # State Com #2 H

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
Zane Kuntz 432-701-5672	Date: 4-3-19 Signature

Disposal Site	
Sundance. EUNICE	Date: 4.3.19 Manuel A Camilo Signature Yardage: 20 Truck #: 36 Driver's Signature

Manifest Number: 0047

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

13

MANIFEST

Lic. #386707

CUSTOMER EOG CUSTOMER

ADDRESS DATE 4-3-19

WORK LOCATION(NAME) RHNU #606 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
James Kennedy 432) 258 4346	Date: 4-3-19 Signature
Disposal Site	
Sundance	Date: 4-3-19 Signature Yardage: 20 Truck #: 30 Irving Lopez Driver's Signature

Manifest Number: 0061

Dirt Excavation • Environmental • Production Services

(17)

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER EOG CUSTOMER

ADDRESS DATE 4-3-19

WORK LOCATION(NAME) RH NU #606 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
James Kemely 432) 258 4346	Date: Signature
Disposal Site	
Sundance	Date: 4-3-19 Signature Yardage: 20 Truck #: 30 Irving Lopez Driver's Signature

Manifest Number: 0062

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
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Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER EOG

CUSTOMER

ADDRESS

DATE 4-3-19

WORK LOCATION(NAME) RHNU # 606

API #

CITY (IF APPLICABLE)

COUNTY Lea

STATE NM

Facility Contact	
James Kennedy 432-258-4346	Date: 4-3-19 Signature

Disposal Site	
Sundance	Date: Signature Yardage: 20 yards Truck #: 029 Driver's Signature

Manifest Number: 0244

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER EOG CUSTOMER

ADDRESS DATE 4-3-19

WORK LOCATION(NAME) RHNU #606 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact	
James Kennedy 432-258-4346	Date: 4-3-19 Signature
Disposal Site	
Sundance	Date: Signature Yardage: 20 yards Truck #: 029 Driver's Signature

Manifest Number: 0245

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4.4.19

WORK LOCATION(NAME) Christmas C-9 API #

CITY (IF APPLICABLE) COUNTY Lea STATE NM

Facility Contact

Shelby Pennington
432-571-8276

Date: 4-4-19
Signature

Disposal Site

Sundance

Date: 4.4.19
Signature

Yardage: 20

Truck #: 34
Driver's Signature

Manifest Number: 0049

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS C DATE 4.4.19

WORK LOCATION(NAME) Christmas C #9 API #

CITY (IF APPLICABLE) Hobbs. COUNTY Lea STATE NM

Facility Contact	
Shelby Pennington 432-557-8274	Date: Signature
Disposal Site	
Sundance.	Date: 4.4.19 Signature Yardage: 20 Truck #: 36 Driver's Signature

Manifest Number: 0050

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-4-19

WORK LOCATION(NAME) CHRISTMAS C-9 API #

CITY (IF APPLICABLE) COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: Signature
Disposal Site	
Sun Dance	Date: 4-4-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 31 Ruben Gonzalez Driver's Signature

Manifest Number: 0021

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-4-19

WORK LOCATION(NAME) CHRISTMAS C-9 API #

CITY (IF APPLICABLE) COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: Signature
Disposal Site	
Sun Dance	Date: 4-4-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 31 Ruben Gonzalez Driver's Signature

Manifest Number: 0020

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-4-19

WORK LOCATION(NAME) CHRISTMAS C-9 API #

CITY (IF APPLICABLE) COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: Signature
Disposal Site	
Sun Dance	Date: 4-4-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 031 Ruben Gonzalez Driver's Signature

Manifest Number: 0019

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-4-19

WORK LOCATION(NAME) CHRISTMAS C-9 API #

CITY (IF APPLICABLE) COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: Signature
Disposal Site	
Sun Dance	Date: 4-4-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 31 Ruben Gonzalez Driver's Signature

Manifest Number: 0018

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER _____

ADDRESS _____ DATE 4-4-19

WORK LOCATION(NAME) CHRISTMAS C #9 API # _____

CITY (IF APPLICABLE) _____ COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: Signature
Disposal Site	
Sun Dance	Date: 4-4-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 31 Ruben Gonzalez Driver's Signature

Manifest Number: 0017

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER _____

ADDRESS _____ DATE 4-4-19

WORK LOCATION(NAME) CHRISTMAS C #9 API # _____

CITY (IF APPLICABLE) _____ COUNTY LEA STATE NM

Facility Contact	
Shelby Pennington 432-571-8276	Date: 4-4-19 Signature
Disposal Site	
Sun Dance	Date: 4-4-19 Ruben Gonzalez Signature Yardage: 20 Truck #: 31 Ruben Gonzalez Driver's Signature

Manifest Number: 0016

Dirt Excavation • Environmental • Production Services

SDR Enterprises, LLC.
6222 S. Bronco Dr.
Hobbs, NM 88240
Office: 575-393-8420

MANIFEST

Lic. #386707

CUSTOMER XTO CUSTOMER

ADDRESS DATE 4-4-19

WORK LOCATION(NAME) christmas C#9 API #

CITY (IF APPLICABLE) COUNTY lea STATE NM

Facility Contact	
Shelby Pennington (432) 571-8276	Date: Signature
Disposal Site	
Sundance	Date: Signature Yardage: 20 Truck #: 30 Driver's Signature

Manifest Number: 0065