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	RP not assigned
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.254431 Longitude -103.608987
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mis Amigos CTB	Site Type Well Location
Date Release Discovered 10/23/2019	API# *(if applicable)* 30-025-40590 (Mis Amigos State #001H)

Unit Letter	Section	Township	Range	County
O	31	23S	33E	LEA

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls) 0.0	Volume Recovered (bbls) 0.0
☒ Produced Water	Volume Released (bbls) 5.0	Volume Recovered (bbls) 5.0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Lease operator discovered a release of produced water from a 6x4 threaded reducer going to water tanks in a lined containment. A vacuum truck recovered 5 bbls from the lined containment. A 48-hour advance notice of liner inspection was provided by email to NMOCD District 2. The liner was visually inspected and the inspector determined the liner has several small holes, delineation for deferral will be conducted by a third party contractor.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	RP not assigned
Facility ID	
Application ID	

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

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:

N/A

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: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 11/6/2019

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Date:

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	RP not assigned
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?	>100 (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

nts 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	RP not assigned
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____12-13-19_____

email: _____ Kyle_Littrell@xtoenergy.com _____ Telephone: ____(432)-221-7331_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	RP not assigned
Facility ID	
Application ID	

Closure

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

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

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

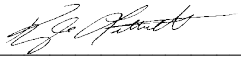
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 12-13-19

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

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: Date:

Printed Name: Title:

LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

December 13, 2019

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

RE: Closure Request
Mis Amigos Central Tank Battery – October 23, 2019 Release
Remediation Permit Number Not Assigned (PO Number RAL4R-191106-C-1410)
Lea County, New Mexico

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing site assessment and soil sampling activities for a release on October 23, 2019 at the Mis Amigos Central Tank Battery (Site) located in Unit O, Section 31, Township 23 South, Range 33 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil following a release of produced water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Request and requesting No Further Action (NFA) for this release event that has yet to be assigned a Remediation Permit (RP) Number. The Purchase Order (PO) Number for the initial Release Notification and Corrective Action Form C-141 (Form C-141), submitted to the New Mexico Oil Conservation Division (NMOCD) for this release event on November 6, 2019, is RAL4R-191106-C-1410.

RELEASE BACKGROUND

On October 23, 2019, produced water from the threaded reducer connecting to the on-site water tank released five barrels (bbls) of produced water to within the lined secondary containment area. A vacuum truck was employed and recovered the five bbls of produced water. A 48-hour notification was provided to the NMOCD via email prior to XTO conducting a liner inspection. The liner was visibly inspected and the inspector determined the liner had several small holes. The liner was repaired by XTO on December 3, 2019. There were no injuries and no damage to equipment or to the surrounding surface area. XTO reported the release to the NMOCD on Form C-141 on November 6, 2019, and the RP Number has not been assigned.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground

surface (bgs) based on the nearest water well data. The closest permitted water well with depth to water data is United States Geological Survey (USGS) well 321555103381501, located approximately 10,041 feet northwest of the Site. The water well has a depth to groundwater of approximately 487 feet bgs and a total depth of 700 feet bgs.

The closest continuously-flowing water or significant watercourse to the Site is a freshwater pond, located approximately 1,544 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake, and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low potential karst area.

CLOSURE CRITERIA

Based on the results of the site characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On November 11, 2019, LTE evaluated the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected two discrete soil samples at a depth of 1-foot and 2-feet bgs (Figure 2) from the area beneath the location of the identified liner holes. No soil staining was observed during the visit to the Site. Preliminary assessment and vertical delineation soil sampling was completed at sample location SS01 which was located within the liner footprint. Soil from the borehole was field screened for volatile aromatic hydrocarbons utilizing a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, presented on Attachment 1. The borehole was backfilled with the removed soil. The initial assessment and vertical delineation soil sample location is depicted on Figure 2.

The soil samples from each event were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC)

procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Based on laboratory analytical results for the delineation soil samples collected on October 23, 2019, excavation activities did not appear to be warranted. Photographic documentation was conducted during the visit to the Site and are included in Attachment 2.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in soil samples (SS01 and SS01A) at depths of approximately 1 foot and 2 feet bgs, respectively. Laboratory analytical results are presented on Figure 2 and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 3.

CONCLUSIONS

Initial assessment and delineation soil sample SS01 and SS01A were collected from within the footprint of the secondary containment liner from depths of 1 foot and 2 feet bgs to assess for the presence or absence of soil impacts as a result of the produced water release on October 23, 2019. The five bbls of the produced water release were recovered and returned to the system. The liner was repaired by XTO on December 3, 2019. Laboratory analytical results for the soil samples indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, field screening of soil indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and soil staining and petroleum hydrocarbon odors were not identified within the release extent.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified and no soil excavation was required as a result of the produced water release. XTO requests NFA for this October 23, 2019 release.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096.

Sincerely,

LT ENVIRONMENTAL, INC.

Kevin M. Axe, P.G.
Senior Geologist

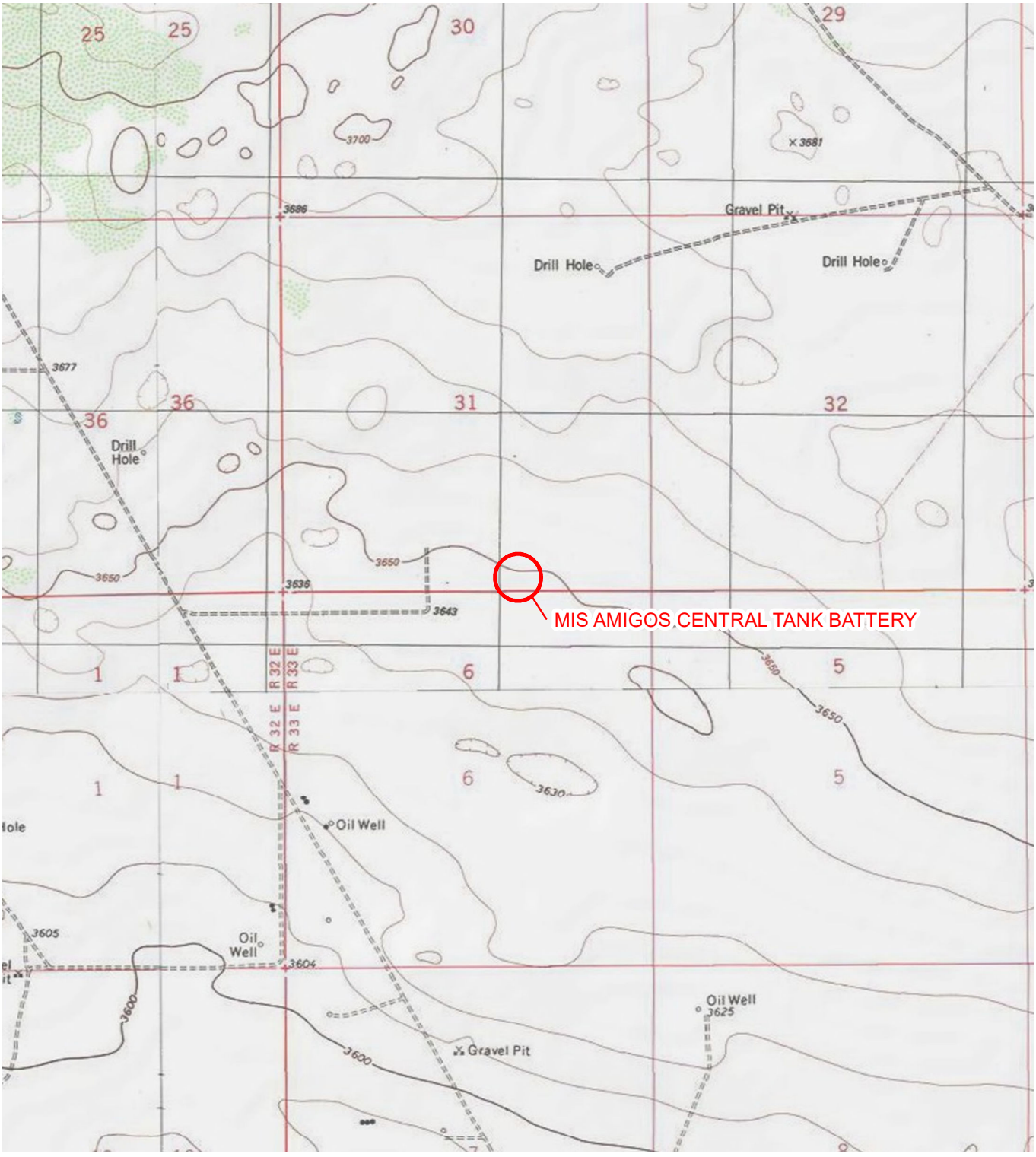
Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Ryan Mann, State Land Office

Appendices:

Figure 1	Site Location Map
Figure 2	Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Lithologic/Soil Sampling Logs
Attachment 2	Photographic Log
Attachment 3	Laboratory Analytical Reports

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER NOT ASSIGNED

FIGURE 1
SITE LOCATION MAP
MIS AMIGOS CENTRAL TANK BATTERY
UNIT O SEC 31 T23S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919264_MIS AMIGOS CENTRAL TANK BATTERY\012919264_FIG01_SL_2019.mxd

LEGEND

✕ RELEASE LOCATION

● SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOCURE CRITERIA

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER NOT ASSIGNED

FIGURE 2
SOIL SAMPLE LOCATIONS
MIS AMIGOS CENTRAL TANK BATTERY
UNIT O SEC 31 T23S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919264_MIS AMIGOS CENTRAL TANK BATTERY\012919264_FIG02_SS LOC_2019.mxd

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS

MIS AMIGOS CTB (10-23-19)
REMEDIATION PERMIT NUMBER NOT ASSIGNED
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	1	11/19/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	<9.88
SS01A	2	11/19/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	<9.92

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

ATTACHMENT 1: LITHOLOGIC/SOIL SAMPLING LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
BH01	11/19/19
Project Name:	**RP Number:**
Mis Amigos CTB	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Ellie / Method: Hand Auger
Lat/Long: / Field Screening:	Hole Diameter: / Total Depth: 2ft
Comments:	

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	>112	0.2	N		1	1ft	S	light brown/tan, caliche to course sand ↓
D	>112	0.3	N		2	2ft	S	
					3			
					4			
					6			
					8			
					10			
					12			
					14			
					16			
					18			
					20			
					12			

ATTACHMENT 2: PHOTOGRAPHIC LOG

Photo 1 Location of punctures in liner.

Photo 2 View of liner after repair following rain event.

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Analytical Report 643861

for

LT Environmental, Inc.

Project Manager: Dan Moir

Mis Amigos CTB

012919264

11.21.2019

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

11.21.2019

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **643861**
Mis Amigos CTB
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 643861. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 643861 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 643861

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	11.19.2019 10:45	1 ft	643861-001
SS01A	S	11.19.2019 11:15	2 ft	643861-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Mis Amigos CTB

Project ID: *012919264*
Work Order Number(s): *643861*

Report Date: *11.21.2019*
Date Received: *11.20.2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108185 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 643861-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Toluene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference.
Samples in the analytical batch are: 643861-001, -002.
The Laboratory Control Sample for Toluene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 643861

LT Environmental, Inc., Arvada, CO

Project Name: Mis Amigos CTB

Project Id: 012919264
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 11.20.2019 12:35
Report Date: 11.21.2019 12:21
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	643861-001		643861-002					
	Field Id:	SS01		SS01A					
	Depth:	1- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	11.19.2019 10:45		11.19.2019 11:15					
BTEX by EPA 8021B	***Extracted:***	11.20.2019 14:11		11.20.2019 14:11					
	Analyzed:	11.20.2019 18:58		11.20.2019 19:15					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00202	0.00202	<0.00202	0.00202				
Toluene		<0.00202	0.00202	<0.00202	0.00202				
Ethylbenzene		<0.00202	0.00202	<0.00202	0.00202				
m,p-Xylenes		<0.00202	0.00202	<0.00202	0.00202				
o-Xylene		<0.00202	0.00202	<0.00202	0.00202				
Total Xylenes		<0.00202	0.00202	<0.00202	0.00202				
Total BTEX		<0.00202	0.00202	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	11.20.2019 16:11		11.20.2019 16:11					
	Analyzed:	11.20.2019 19:40		11.20.2019 19:46					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<9.88	9.88	<9.92	9.92				
TPH by SW8015 Mod	***Extracted:***	11.20.2019 16:30		11.20.2019 16:30					
	Analyzed:	11.20.2019 17:16		11.20.2019 18:17					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.3	50.3				
Diesel Range Organics (DRO)		<50.1	50.1	<50.3	50.3				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.3	50.3				
Total GRO-DRO		<50.1	50.1	<50.3	50.3				
Total TPH		<50.1	50.1	<50.3	50.3				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 643861

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.20.2019 12:35
Lab Sample Id:	643861-001	Date Collected:	11.19.2019 10:45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.20.2019 16:11	Basis:	Wet Weight
Seq Number:	3108187				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.88	9.88	mg/kg	11.20.2019 19:40	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.20.2019 16:30	Basis:	Wet Weight
Seq Number:	3108192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2019 17:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.20.2019 17:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2019 17:16	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.20.2019 17:16	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.20.2019 17:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.20.2019 17:16	
o-Terphenyl	84-15-1	115	%	70-135	11.20.2019 17:16	

Certificate of Analytical Results 643861

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.20.2019 12:35
Lab Sample Id:	643861-001	Date Collected:	11.19.2019 10:45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.20.2019 14:11	Basis:	Wet Weight
Seq Number:	3108185				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.20.2019 18:58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.20.2019 18:58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.20.2019 18:58	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.20.2019 18:58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.20.2019 18:58	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.20.2019 18:58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.20.2019 18:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.20.2019 18:58	
4-Bromofluorobenzene	460-00-4	102	%	70-130	11.20.2019 18:58	

Certificate of Analytical Results 643861

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS01A**	Matrix:	Soil	Date Received:	11.20.2019 12:35
Lab Sample Id:	643861-002	Date Collected:	11.19.2019 11:15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.20.2019 16:11	Basis:	Wet Weight
Seq Number:	3108187				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	11.20.2019 19:46	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.20.2019 16:30	Basis:	Wet Weight
Seq Number:	3108192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.20.2019 18:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.20.2019 18:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.20.2019 18:17	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.20.2019 18:17	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.20.2019 18:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.20.2019 18:17	
o-Terphenyl	84-15-1	118	%	70-135	11.20.2019 18:17	

Certificate of Analytical Results 643861

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS01A**	Matrix:	Soil	Date Received:	11.20.2019 12:35
Lab Sample Id:	643861-002	Date Collected:	11.19.2019 11:15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.20.2019 14:11	Basis:	Wet Weight
Seq Number:	3108185				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.20.2019 19:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.20.2019 19:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.20.2019 19:15	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.20.2019 19:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.20.2019 19:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.20.2019 19:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.20.2019 19:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.20.2019 19:15	
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.20.2019 19:15	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 643861

LT Environmental, Inc.

Mis Amigos CTB

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3108187 Matrix: Solid Date Prep: 11.20.2019
MB Sample Id: 7690830-1-BLK LCS Sample Id: 7690830-1-BKS LCSD Sample Id: 7690830-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	251	100	90-110	1	20	mg/kg	11.20.2019 18:23	

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3108187 Matrix: Soil Date Prep: 11.20.2019
Parent Sample Id: 643862-001 MS Sample Id: 643862-001 S MSD Sample Id: 643862-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	995	196	1140	74	1160	83	90-110	2	20	mg/kg	11.20.2019 19:59	X

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3108187 Matrix: Soil Date Prep: 11.20.2019
Parent Sample Id: 643864-001 MS Sample Id: 643864-001 S MSD Sample Id: 643864-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.90	198	207	105	207	104	90-110	0	20	mg/kg	11.20.2019 18:41	

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3108192 Matrix: Solid Date Prep: 11.20.2019
MB Sample Id: 7690829-1-BLK LCS Sample Id: 7690829-1-BKS LCSD Sample Id: 7690829-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	813	81	787	79	70-135	3	35	mg/kg	11.20.2019 16:34	
Diesel Range Organics (DRO)	<50.0	1000	947	95	917	92	70-135	3	35	mg/kg	11.20.2019 16:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		101		99		70-135	%	11.20.2019 16:34
o-Terphenyl	96		98		96		70-135	%	11.20.2019 16:34

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3108192 Matrix: Solid Date Prep: 11.20.2019
MB Sample Id: 7690829-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2019 16:14	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 643861

LT Environmental, Inc.

Mis Amigos CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3108192 — Matrix: Soil — Date Prep: 11.20.2019
Parent Sample Id: 643861-001 — MS Sample Id: 643861-001 S — MSD Sample Id: 643861-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	1110	111	897	90	70-135	21	35	mg/kg	11.20.2019 17:36	
Diesel Range Organics (DRO)	<50.0	999	1290	129	1050	105	70-135	21	35	mg/kg	11.20.2019 17:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		131		70-135	%	11.20.2019 17:36
o-Terphenyl	128		116		70-135	%	11.20.2019 17:36

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3108185 — Matrix: Solid — Date Prep: 11.20.2019
MB Sample Id: 7690825-1-BLK — LCS Sample Id: 7690825-1-BKS — LCSD Sample Id: 7690825-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0980	98	0.0920	92	70-130	6	35	mg/kg	11.20.2019 15:30	
Toluene	<0.00200	0.100	0.0890	89	0.0838	84	70-130	6	35	mg/kg	11.20.2019 15:30	
Ethylbenzene	<0.00200	0.100	0.0967	97	0.0910	91	71-129	6	35	mg/kg	11.20.2019 15:30	
m,p-Xylenes	<0.00200	0.200	0.191	96	0.180	90	70-135	6	35	mg/kg	11.20.2019 15:30	
o-Xylene	<0.00200	0.100	0.0945	95	0.0891	89	71-133	6	35	mg/kg	11.20.2019 15:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		100		70-130	%	11.20.2019 15:30
4-Bromofluorobenzene	107		100		98		70-130	%	11.20.2019 15:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3108185 — Matrix: Soil — Date Prep: 11.20.2019
Parent Sample Id: 643861-001 — MS Sample Id: 643861-001 S — MSD Sample Id: 643861-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0736	74	0.0943	94	70-130	25	35	mg/kg	11.20.2019 17:49	
Toluene	<0.00200	0.100	0.0694	69	0.0879	88	70-130	24	35	mg/kg	11.20.2019 17:49	X
Ethylbenzene	<0.00200	0.100	0.0757	76	0.0960	96	71-129	24	35	mg/kg	11.20.2019 17:49	
m,p-Xylenes	<0.00200	0.200	0.151	76	0.191	96	70-135	23	35	mg/kg	11.20.2019 17:49	
o-Xylene	<0.00200	0.100	0.0743	74	0.0936	94	71-133	23	35	mg/kg	11.20.2019 17:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	11.20.2019 17:49
4-Bromofluorobenzene	103		101		70-130	%	11.20.2019 17:49

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Chain of Custody

Work Order No: 438161

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	enaka@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Mis Amigos CTB	Turn Around	
Project Number:	012919264	Routine ☐	
P.O. Number:	Eddy County	Rush: 24hour	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.7	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	11/19/19	1045	1'	1	X	X	X	discrete
SS01A	S	11/19/19	1115	2'	1	X	X	X	

Elizabeth Naka

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Elizabeth Naka	Courtney	11/20/19 12:35	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/20/2019 12:35:00 PM

Work Order #: 643861

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 11/20/2019

Checklist reviewed by: Jessica Kramer Date: 11/21/2019

Jessica Kramer