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	NDHR1918660089
District RP	1RP-5607
Facility ID	
Application ID	pDHR1918659716

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)* NDHR1918660089
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.255141° Longitude -103.609785°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mis Amigos Battery	Site Type Bulk Storage and Separation Facility
Date Release Discovered 6/18/2019	API# *(if applicable)* 30-025-40590

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

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

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) 0.05 bbl	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (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

Fire: Flare scrubber loaded up and caused a mist of oil to escape the flare and ignite a mesquite bush. The lease operator suppressed the fire with his fire extinguisher. No injuries were reported. Additional third party resources have been retained to assist with remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1918660089
District RP	1RP-5607
Facility ID	
Application ID	pDHR1918659716

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? An unauthorized release of a volume that results in a fire or is the result of a fire

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Amy Ruth to EMNRD-OCD_District1spills and Ryan Mann (SLO) on 6/19/2019 by email

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: Amy C. Ruth Title: SH&E Coordinator

Signature: Date: 7/1/2019

email: Amy_Ruth@xtoenergy.com Telephone: 575-689-3380

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5607
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

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

Incident ID	
District RP	1RP-5607
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 Supervisor_____

Signature:_____ Date: __10/15/2019_____

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	1RP-5607
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: 10/15/2019

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 103
Midland, Texas 79705
432.704.5178

October 15, 2019

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request
Mis Amigos Battery
Remediation Permit Number 1RP-5607
Lea County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Mis Amigos Battery (Site) 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 address impacts to soil following a release of crude oil at the Site. Based on the results of the soil sampling events, XTO is submitting this Closure Request requesting no further action for the release event.

RELEASE BACKGROUND

On June 18, 2019, a flare scrubber malfunctioned and caused 0.05 barrels (bbls) of crude oil to mist onto and ignite a mesquite bush. The fire was extinguished, and no injuries were reported. No fluid was recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on July 1, 2019, and was assigned Remediation Permit (RP) Number 1RP-5607 (Attachment 1).

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 nearest permitted water well with depth to water data is C 02279, located approximately 1.98 miles northeast of the Site. The water well has a depth to groundwater of approximately 400 feet and a total depth of approximately 650 feet. Ground surface elevation at the water well location is 3,684 feet above mean sea level (AMSL), which is approximately 27 feet higher in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is a freshwater pond located approximately 1.34 miles 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): 2,500 mg/kg;
- Gasoline Range Organics + Diesel Range Organics: 1,000 mg/kg; and
- Chloride: 20,000 mg/kg.

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

On August 22, 2019, LTE personnel was at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected three preliminary soil samples (SS01 through SS03) within the release extent from a depth of approximately 0.5 feet bgs to assess for the presence or absence of soil impacts. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positing System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples 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 (USEPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Based on laboratory analytical results for the preliminary soil samples, excavation activities did not appear warranted; however, additional site assessment activities were scheduled. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 2.

On September 9 and September 10, 2019, LTE personnel returned to the Site to conduct soil assessment activities to further confirm the presence or absence of impacted soil. Subsequent potholes were advanced via track-mounted backhoe at the three preliminary soil sample locations within the release extent. Potholes PH01 through PH03 were advanced to depths of 4 feet bgs. Two delineation soil samples were collected from each pothole at depths of 1 foot or 2 feet, and 4 feet bgs. Soil from the three potholes was field screened utilizing a PID and Hach® chloride QuanTab® test strips. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Midland, Texas. The boreholes and delineation soil sample locations are depicted on Figure 3.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SS01 through SS03 collected at a depth of approximately 0.5 feet bgs, and in delineation pothole soil samples PH01/PH01A through PH03/PH03A, collected at depths ranging from approximately 1 foot to 4 feet bgs. Laboratory analytical results are presented on Figure 2 and Figure 3, and are summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.

CONCLUSIONS

Preliminary soil samples SS01 through SS03 and delineation soil samples PH01/PH01A through PH03/PH03A were collected from within the release extent from depths ranging from 0.5 feet to 4 feet bgs to assess for the presence or absence of soil impacts as a result of the June 18, 2019, release. Laboratory analytical results for all soil samples indicated that 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 crude oil release. XTO requests no further action for RP Number 1RP-5607. An updated NMOCD Form C-141 is included as Attachment 1.

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

Sincerely,

LT ENVIRONMENTAL, INC.

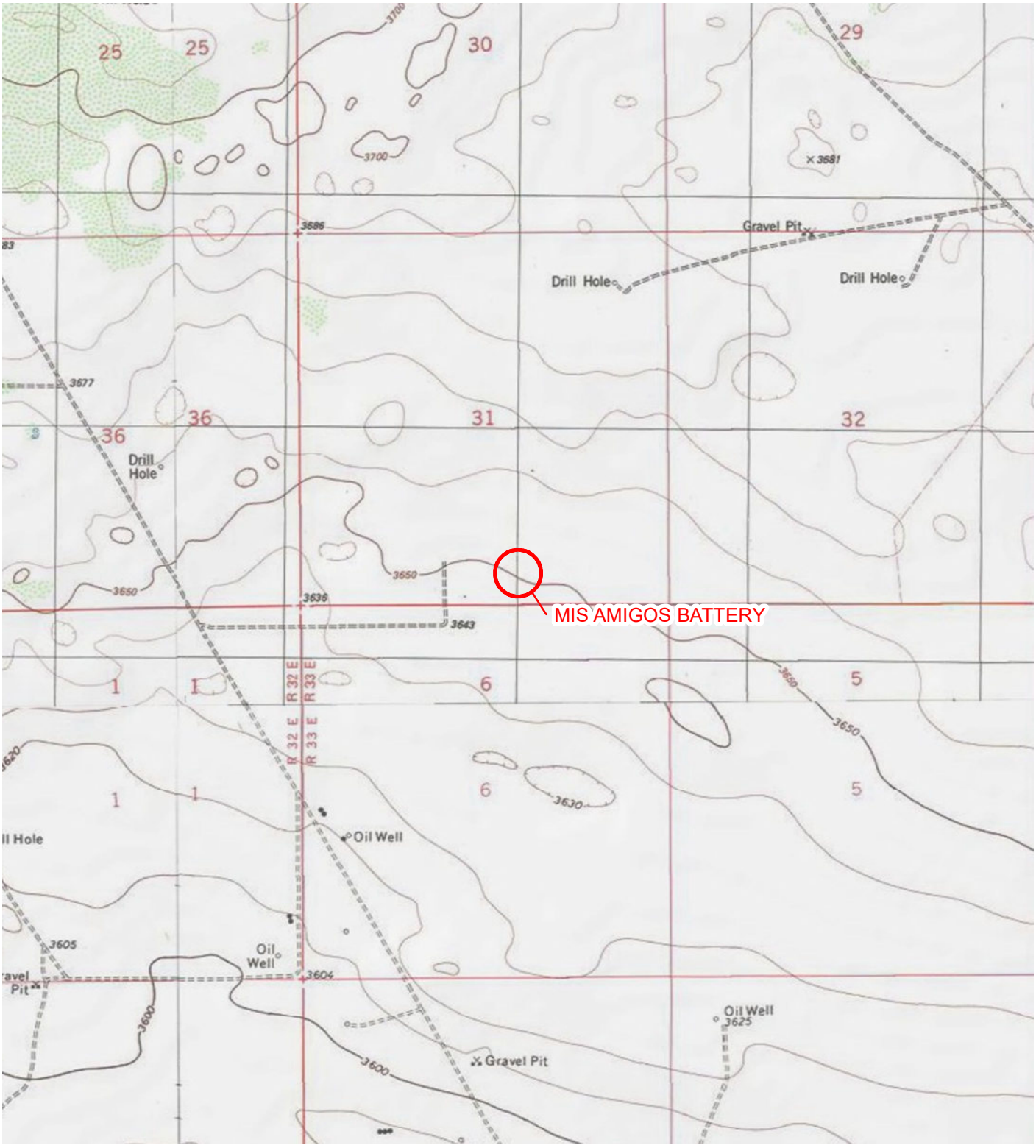
Carol Ann Whaley
Staff Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Ryan Mann, State Land Office
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Table 1	Soil Analytical Reports
Attachment 1	Initial/Final NMOCD Form C-141 (1RP-5607)
Attachment 2	Photographic Log
Attachment 3	Lithologic/Soil Sample Logs
Attachment 4	Laboratory Analytical Reports



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

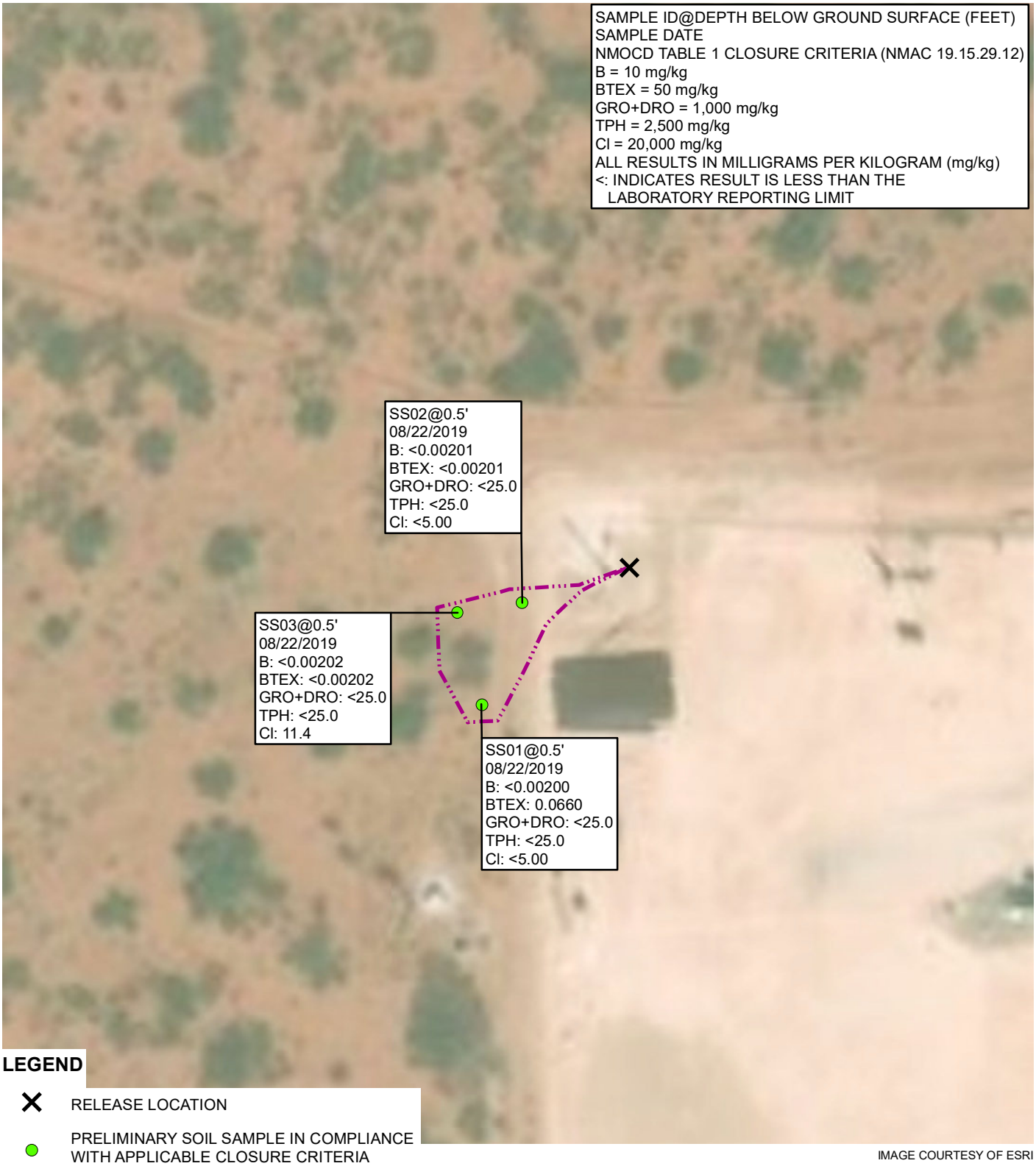
N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 1RP-5607

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

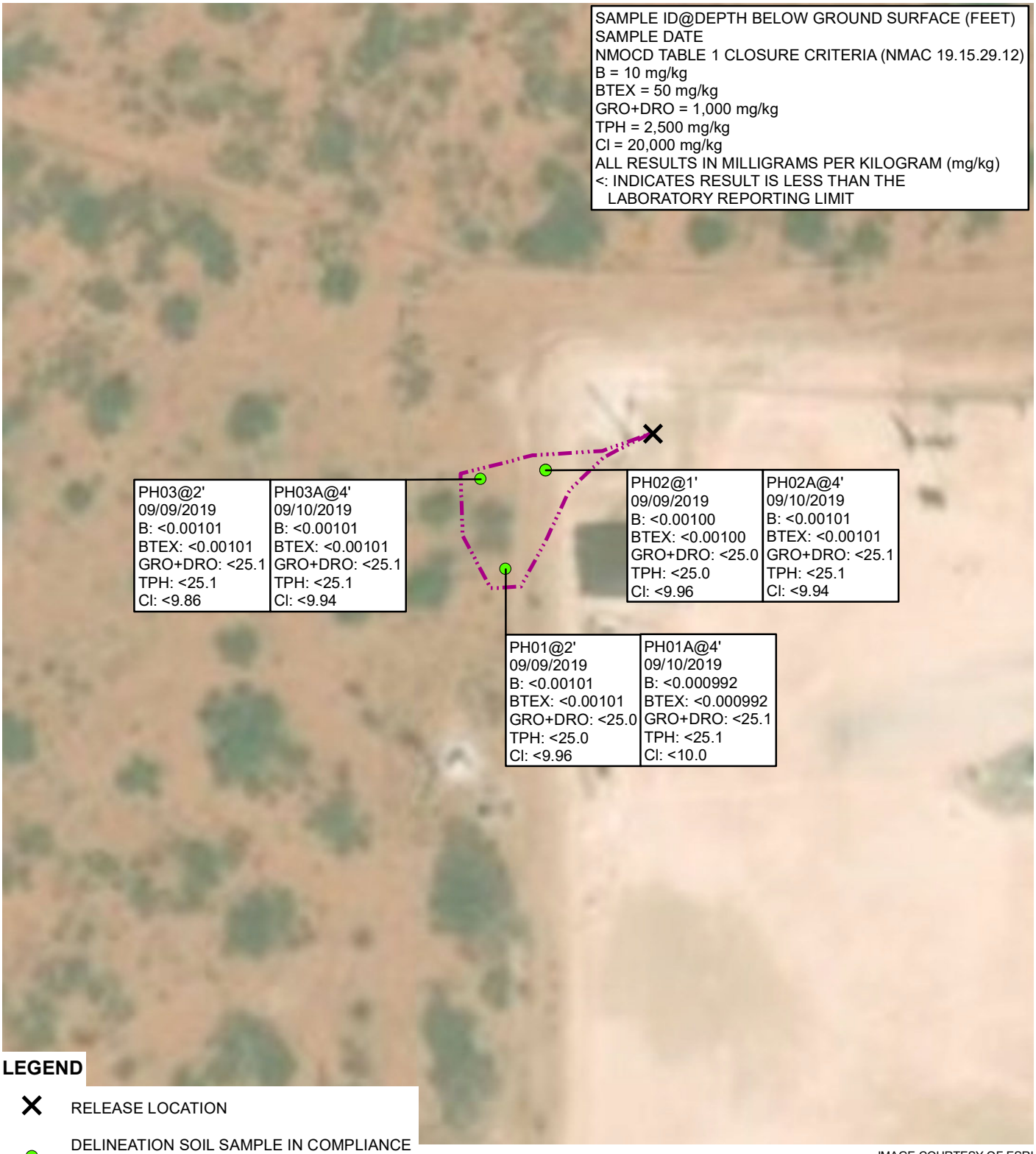
P:\XTO Energy\GIS\MXD\012919176_MIS AMIGOS BATTERY (FIRE)\012919176_FIG01_SL_5607.mxd



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 1RP-5607

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

P:\XTO Energy\GIS\MXD\012919176_MIS AMIGOS BATTERY (FIRE)\012919176_FIG02_PRELIMINARY_5607.mxd



LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT

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 1RP-5607

IMAGE COURTESY OF ESRI

0 40 80
Feet

N

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
MIS AMIGOS BATTERY
UNIT O SEC 31 T23S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919176_MIS AMIGOS BATTERY (FIRE)\012919176_FIG03_DELINEATION_5607.mxd

TABLE 1
SOIL ANALYTICAL RESULTS

MIS AMIGOS BATTERY
REMEDIATION PERMIT NUMBER 1RP-5607
LEA 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)
SS01	0.5	08/22/2019	<0.00200	<0.00200	0.0496	0.0164	0.0660	<25.0	<25.0	<25.0	<25.0	<25.0	<5.00
SS02	0.5	08/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<25.0	<25.0	<25.0	<25.0	<25.0	<5.00
SS03	0.5	08/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<25.0	<25.0	<25.0	<25.0	<25.0	11.4
PH01	2	09/09/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.0	<25.0	<25.0	<25.0	<25.0	<9.96
PH01A	4	09/10/2019	<0.000992	<0.000992	<0.000992	<0.000992	<0.000992	<25.1	<25.1	<25.1	<25.1	<25.1	<10.0
PH02	1	09/09/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	<25.0	<9.96
PH02A	4	09/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.1	<25.1	<25.1	<25.1	<25.1	<9.94
PH03	2	09/09/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.1	<25.1	<25.1	<25.1	<25.1	<9.86
PH03A	4	09/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.1	<25.1	<25.1	<25.1	<25.1	<9.94
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

Notes:

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

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (1RP-5542)

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
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Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

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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)* NDHR1918660089
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.255141° Longitude -103.609785°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mis Amigos Battery	Site Type Bulk Storage and Separation Facility
Date Release Discovered 6/18/2019	API# *(if applicable)* 30-025-40590

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

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

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) 0.05 bbl	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (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

Fire: Flare scrubber loaded up and caused a mist of oil to escape the flare and ignite a mesquite bush. The lease operator suppressed the fire with his fire extinguisher. No injuries were reported. Additional third party resources have been retained to assist with remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1918660089
District RP	1RP-5607
Facility ID	
Application ID	pDHR1918659716

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? An unauthorized release of a volume that results in a fire or is the result of a fire

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Amy Ruth to EMNRD-OCD_District1spills and Ryan Mann (SLO) on 6/19/2019 by email

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.
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☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
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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: Amy C. Ruth Title: SH&E Coordinator

Signature: Date: 7/1/2019

email: Amy_Ruth@xtoenergy.com Telephone: 575-689-3380

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5607
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

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

Incident ID	
District RP	1RP-5607
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 Supervisor_____

Signature:_____ Date: __10/15/2019_____

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	1RP-5607
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: 10/15/2019

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:

ATTACHMENT 2: PHOTOGRAPHIC LOG

Eastern view of release area during site assessment activities.

Project: 012919176	XTO Energy, Inc. Mis Amigos Battery	LTE Advancing Opportunity
August 22, 2019	Photographic Log	

Western view of release area during delineation soil sampling activities.

Project: 012919176	XTO Energy, Inc. Mis Amigos Battery	LTE Advancing Opportunity
September 10, 2019	Photographic Log	

ATTACHMENT 3: LITHOLOGIC SOIL SAMPLE LOGS

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

Identifier:	Date:
PH01	09/09 - 09/10/19
Project Name: Mis Amigos Battery (fire)	RP Number:
Logged By: Fatima Smith	Method:
Hole Diameter:	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<179	4.6	N		0–1		S	topsoil, SP-SM, reddish brwn, low - med plasticity, no odor, poorly graded
Dry	"	12.3	N		2		S	
Dry	"	5.2	N		4		S	deepest sample @ 4'

0 1 2 3 4 5 6 7 8 9 10 11 12

Fatima

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

Identifier:	Date:
PH02	09/09 - 09/10/14
Project Name:	**RP Number:**
Mis Amigos Battery (fire)	
Logged By: Fatima Smith	**Method:**
Hole Diameter:	**Total Depth:** 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:
Field Screening:
Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<179	1.9	N		0–1		S	topsoil, reddish brwn, poorly graded, low plasticity, no odor, SP-SM
Dry	"	0.7	N		2		S	
Dry	"	15.3	N		4		S	deepest sample @ 4'

0 1 2 3 4 5 6 7 8 9 10 11 12

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

Identifier:	Date:
PH03	09/09 - 09/10/10
Project Name:	**RP Number:**
Mis Amigos Battery (fire)	
Logged By: Fatima Smith	**Method:**
Lat/Long:	**Field Screening:**
Hole Diameter:	**Total Depth:** 41

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<179	2.9	N		0–1		S	reddish brwn, topsoil, poorly graded, no odor, low plasticity, SP-SM
Dry	"	5.4	N		1–2		S	
					2–3			
Dry	"	4.3	N		3–4		S	deepest sample @ 4'
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

Analytical Report 634967

for

LT Environmental, Inc.

Project Manager: Dan Moir

Mis Amigos Battery

1RP-5607

29-AUG-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

29-AUG-19

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

Reference: XENCO Report No(s): **634967**
Mis Amigos Battery
Project Address:

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) 634967. 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. 634967 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

Sample Cross Reference 634967

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	08-22-19 09:25	.5 ft	634967-001
SS02	S	08-22-19 09:30	.5 ft	634967-002
SS03	S	08-22-19 09:35	.5 ft	634967-003

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099998 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 634967

LT Environmental, Inc., Arvada, CO

Project Name: Mis Amigos Battery

Project Id: 1RP-5607
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Aug-22-19 04:39 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	634967-001		634967-002		634967-003			
	Field Id:	SS01		SS02		SS03			
	Depth:	.5- ft		.5- ft		.5- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Aug-22-19 09:25		Aug-22-19 09:30		Aug-22-19 09:35			
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-26-19 16:00		Aug-26-19 16:00		Aug-26-19 16:00			
	Analyzed:	Aug-29-19 05:29		Aug-29-19 05:49		Aug-29-19 06:09			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202		
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202		
Ethylbenzene		0.0496	0.00200	<0.00201	0.00201	<0.00202	0.00202		
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00403	0.00403		
o-Xylene		0.0164	0.00200	<0.00201	0.00201	<0.00202	0.00202		
Total Xylenes		0.0164	0.00200	<0.00201	0.00201	<0.00202	0.00202		
Total BTEX		0.0660	0.00200	<0.00201	0.00201	<0.00202	0.00202		
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-26-19 10:40		Aug-26-19 10:40		Aug-26-19 10:40			
	Analyzed:	Aug-26-19 11:53		Aug-26-19 12:17		Aug-26-19 12:24			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		<5.00	5.00	<5.00	5.00	11.4	5.00		
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-26-19 08:00		Aug-26-19 08:00		Aug-26-19 08:00			
	Analyzed:	Aug-26-19 12:04		Aug-26-19 13:02		Aug-26-19 13:22			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<25.0	25.0	<25.0	25.0	<25.0	25.0		
Diesel Range Organics (DRO)		<25.0	25.0	<25.0	25.0	<25.0	25.0		
Motor Oil Range Hydrocarbons (MRO)		<25.0	25.0	<25.0	25.0	<25.0	25.0		
Total TPH		<25.0	25.0	<25.0	25.0	<25.0	25.0		
Total GRO-DRO		<25.0	25.0	<25.0	25.0	<25.0	25.0		

Jessica Kramer
Project Assistant

Certificate of Analytical Results 634967

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634967-001	Date Collected:	08.22.19 09.25	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	08.26.19 11.53	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.26.19 12.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.26.19 12.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.26.19 12.04	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.26.19 12.04	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.26.19 12.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.26.19 12.04	
o-Terphenyl	84-15-1	101	%	70-135	08.26.19 12.04	

Certificate of Analytical Results 634967

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634967-001	Date Collected:	08.22.19 09.25	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.26.19 16.00	Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 05.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 05.29	U	1
Ethylbenzene	100-41-4	**0.0496**	0.00200	mg/kg	08.29.19 05.29		1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 05.29	U	1
o-Xylene	95-47-6	**0.0164**	0.00200	mg/kg	08.29.19 05.29		1
Total Xylenes	1330-20-7	**0.0164**	0.00200	mg/kg	08.29.19 05.29		1
Total BTEX		**0.0660**	0.00200	mg/kg	08.29.19 05.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	08.29.19 05.29	
1,4-Difluorobenzene	540-36-3	75	%	70-130	08.29.19 05.29	

Certificate of Analytical Results 634967

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634967-002	Date Collected:	08.22.19 09.30	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	08.26.19 12.17	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.26.19 13.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.26.19 13.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.26.19 13.02	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.26.19 13.02	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.26.19 13.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.26.19 13.02	
o-Terphenyl	84-15-1	102	%	70-135	08.26.19 13.02	

Certificate of Analytical Results 634967

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634967-002	Date Collected:	08.22.19 09.30	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.26.19 16.00	Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.19 05.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.19 05.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.19 05.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.19 05.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.19 05.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.19 05.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.19 05.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	129	%	70-130	08.29.19 05.49	
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.29.19 05.49	

Certificate of Analytical Results 634967

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634967-003	Date Collected:	08.22.19 09.35	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.4**	5.00	mg/kg	08.26.19 12.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.26.19 13.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.26.19 13.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.26.19 13.22	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.26.19 13.22	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.26.19 13.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.26.19 13.22	
o-Terphenyl	84-15-1	105	%	70-135	08.26.19 13.22	

Certificate of Analytical Results 634967

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634967-003	Date Collected:	08.22.19 09.35	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.26.19 16.00	Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.29.19 06.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.29.19 06.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.29.19 06.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.29.19 06.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.29.19 06.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.29.19 06.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.29.19 06.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.29.19 06.09	
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.29.19 06.09	

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 634967

LT Environmental, Inc.

Mis Amigos Battery

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3099705 Matrix: Solid Date Prep: 08.26.19
MB Sample Id: 7684957-1-BLK LCS Sample Id: 7684957-1-BKS LCSD Sample Id: 7684957-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	244	98	90-110	0	20	mg/kg	08.26.19 11:02	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3099705 Matrix: Soil Date Prep: 08.26.19
Parent Sample Id: 634804-007 MS Sample Id: 634804-007 S MSD Sample Id: 634804-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	56.4	250	296	96	296	96	90-110	0	20	mg/kg	08.26.19 11:21	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3099705 Matrix: Soil Date Prep: 08.26.19
Parent Sample Id: 634970-003 MS Sample Id: 634970-003 S MSD Sample Id: 634970-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.1	248	272	99	271	98	90-110	0	20	mg/kg	08.26.19 12:55	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3099768 Matrix: Solid Date Prep: 08.26.19
MB Sample Id: 7684950-1-BLK LCS Sample Id: 7684950-1-BKS LCSD Sample Id: 7684950-1-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)	<15.0	1000	894	89	943	94	70-135	5	20	mg/kg	08.26.19 11:25	
Diesel Range Organics (DRO)	<25.0	1000	936	94	992	99	70-135	6	20	mg/kg	08.26.19 11:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		118		124		70-135	%	08.26.19 11:25
o-Terphenyl	76		118		121		70-135	%	08.26.19 11:25

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 634967

LT Environmental, Inc.

Mis Amigos Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3099768 Matrix: Soil Date Prep: 08.26.19
Parent Sample Id: 634967-001 MS Sample Id: 634967-001 S MSD Sample Id: 634967-001 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)	<15.0	997	952	95	955	96	70-135	0	20	mg/kg	08.26.19 12:24	
Diesel Range Organics (DRO)	<24.9	997	884	89	890	89	70-135	1	20	mg/kg	08.26.19 12:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		128		70-135	%	08.26.19 12:24
o-Terphenyl	125		106		70-135	%	08.26.19 12:24

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3099998 Matrix: Solid Date Prep: 08.26.19
MB Sample Id: 7685031-1-BLK LCS Sample Id: 7685031-1-BKS LCSD Sample Id: 7685031-1-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	0.0971	97	0.102	102	70-130	5	35	mg/kg	08.27.19 09:23	
Toluene	<0.000456	0.100	0.0975	98	0.102	102	70-130	5	35	mg/kg	08.27.19 09:23	
Ethylbenzene	<0.000565	0.100	0.102	102	0.108	108	70-130	6	35	mg/kg	08.27.19 09:23	
m,p-Xylenes	<0.00101	0.200	0.197	99	0.206	103	70-130	4	35	mg/kg	08.27.19 09:23	
o-Xylene	<0.000344	0.100	0.102	102	0.107	107	70-130	5	35	mg/kg	08.27.19 09:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		98		98		70-130	%	08.27.19 09:23
4-Bromofluorobenzene	95		105		104		70-130	%	08.27.19 09:23

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3099998 Matrix: Soil Date Prep: 08.26.19
Parent Sample Id: 634978-001 MS Sample Id: 634978-001 S MSD Sample Id: 634978-001 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	0.0998	0.0735	74	0.0792	80	70-130	7	35	mg/kg	08.27.19 10:03	
Toluene	<0.00200	0.0998	0.0690	69	0.0747	75	70-130	8	35	mg/kg	08.27.19 10:03	X
Ethylbenzene	<0.00200	0.0998	0.0661	66	0.0760	76	70-130	14	35	mg/kg	08.27.19 10:03	X
m,p-Xylenes	<0.00101	0.200	0.120	60	0.124	62	70-130	3	35	mg/kg	08.27.19 10:03	X
o-Xylene	<0.000344	0.0998	0.0651	65	0.0764	77	70-130	16	35	mg/kg	08.27.19 10:03	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		104		70-130	%	08.27.19 10:03
4-Bromofluorobenzene	108		107		70-130	%	08.27.19 10:03

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: e349167

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
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	Mis Amigos Battery	Turn Around	
Project Number:	1RP-5607	Routine	☑
P.O. Number:	1RP-5607	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	3.2	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:	3

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	8/22/19	0925	.5'	1	X	X	X
SS02	S		0930		1			
SS03	S		0935		1			

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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	Scott Sher	Robert Mallet	08/22/19 @ 16:26	2	Robert Mallet	8/22/19 10:37
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **46834**

Date/Time: 08/23/19 12:28
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776067465701

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
634967-001	S	SS01	08/22/19 09:25	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634967-001	S	SS01	08/22/19 09:25	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634967-001	S	SS01	08/22/19 09:25	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634967-002	S	SS02	08/22/19 09:30	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634967-002	S	SS02	08/22/19 09:30	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634967-002	S	SS02	08/22/19 09:30	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634967-003	S	SS03	08/22/19 09:35	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634967-003	S	SS03	08/22/19 09:35	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634967-003	S	SS03	08/22/19 09:35	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 08/23/2019

Received By: Brianna Teel

Date Received: 08/26/2019 07:35

Cooler Temperature: 0.7

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 46834

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 08/23/2019 12:28 PM

Received By: Brianna Teel **Date Received:** 08/26/2019 07:35 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 08/26/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/22/2019 04:39:00 PM

Work Order #: 634967

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)?	3.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Xenco Midland.
#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: 08/23/2019

Checklist reviewed by: Jessica Kramer Date: 08/27/2019

Analytical Report 636555

for

LT Environmental, Inc.

Project Manager: Dan Moir

Mis Amigos Battery (fire)

012919176

16-SEP-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

16-SEP-19

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

Reference: XENCO Report No(s): **636555**
Mis Amigos Battery (fire)
Project Address:

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) 636555. 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. 636555 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

Sample Cross Reference 636555

LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	09-09-19 15:00	2 ft	636555-001
PH01A	S	09-10-19 09:51	4 ft	636555-002
PH02	S	09-09-19 15:14	1 ft	636555-003
PH02A	S	09-10-19 09:34	4 ft	636555-004
PH03	S	09-09-19 15:27	2 ft	636555-005
PH03A	S	09-10-19 09:43	4 ft	636555-006

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3101396 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 636555

LT Environmental, Inc., Arvada, CO

Project Name: Mis Amigos Battery (fire)

Project Id: 012919176
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Sep-11-19 10:55 am
Report Date: 16-SEP-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	636555-001		636555-002		636555-003		636555-004		636555-005		636555-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	2- ft		4- ft		1- ft		4- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-09-19 15:00		Sep-10-19 09:51		Sep-09-19 15:14		Sep-10-19 09:34		Sep-09-19 15:27		Sep-10-19 09:43	
BTEX by EPA 8021B	***Extracted:***	Sep-11-19 17:00		Sep-11-19 17:00		Sep-11-19 17:00		Sep-11-19 17:00		Sep-11-19 17:00		Sep-11-19 17:00	
	Analyzed:	Sep-11-19 23:00		Sep-12-19 00:18		Sep-12-19 00:38		Sep-12-19 00:58		Sep-12-19 01:18		Sep-12-19 01:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00101	0.00101	<0.000992	0.000992	<0.00100	0.00100	<0.00101	0.00101	<0.00101	0.00101	<0.00101	0.00101
Toluene		<0.00101	0.00101	<0.000992	0.000992	<0.00100	0.00100	<0.00101	0.00101	<0.00101	0.00101	<0.00101	0.00101
Ethylbenzene		<0.00101	0.00101	<0.000992	0.000992	<0.00100	0.00100	<0.00101	0.00101	<0.00101	0.00101	<0.00101	0.00101
m,p-Xylenes		<0.00201	0.00201	<0.00198	0.00198	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202
o-Xylene		<0.00101	0.00101	<0.000992	0.000992	<0.00100	0.00100	<0.00101	0.00101	<0.00101	0.00101	<0.00101	0.00101
Total Xylenes		<0.00101	0.00101	<0.000992	0.000992	<0.00100	0.00100	<0.00101	0.00101	<0.00101	0.00101	<0.00101	0.00101
Total BTEX		<0.00101	0.00101	<0.000992	0.000992	<0.00100	0.00100	<0.00101	0.00101	<0.00101	0.00101	<0.00101	0.00101
Chloride by EPA 300	***Extracted:***	Sep-11-19 12:50		Sep-11-19 12:50		Sep-11-19 12:50		Sep-11-19 12:50		Sep-11-19 12:50		Sep-11-19 12:50	
	Analyzed:	Sep-11-19 16:45		Sep-11-19 16:52		Sep-11-19 16:58		Sep-11-19 17:05		Sep-11-19 17:11		Sep-11-19 17:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<9.96	9.96	<10.0	10.0	<9.96	9.96	<9.94	9.94	<9.86	9.86	<9.94	9.94
TPH by SW8015 Mod	***Extracted:***	Sep-11-19 16:30		Sep-11-19 16:30		Sep-11-19 16:30		Sep-11-19 16:30		Sep-11-19 16:30		Sep-11-19 16:30	
	Analyzed:	Sep-12-19 00:40		Sep-12-19 01:01		Sep-12-19 01:21		Sep-12-19 01:42		Sep-12-19 02:02		Sep-12-19 02:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<25.0	25.0	<25.1	25.1	<25.0	25.0	<25.1	25.1	<25.1	25.1	<25.1	25.1
Diesel Range Organics (DRO)		<25.0	25.0	<25.1	25.1	<25.0	25.0	<25.1	25.1	<25.1	25.1	<25.1	25.1
Motor Oil Range Hydrocarbons (MRO)		<25.0	25.0	<25.1	25.1	<25.0	25.0	<25.1	25.1	<25.1	25.1	<25.1	25.1
Total GRO-DRO		<25.0	25.0	<25.1	25.1	<25.0	25.0	<25.1	25.1	<25.1	25.1	<25.1	25.1
Total TPH		<25.0	25.0	<25.1	25.1	<25.0	25.0	<25.1	25.1	<25.1	25.1	<25.1	25.1

Jessica Kramer
Project Assistant

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-001	Date Collected:	09.09.19 15.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.11.19 12.50	Basis:	Wet Weight
Seq Number:	3101247				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	09.11.19 16.45	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 16.30	Basis:	Wet Weight
Seq Number:	3101292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	09.12.19 00.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	09.12.19 00.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	09.12.19 00.40	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	09.12.19 00.40	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	09.12.19 00.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	09.12.19 00.40	
o-Terphenyl	84-15-1	74	%	70-135	09.12.19 00.40	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-001	Date Collected:	09.09.19 15.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 17.00	Basis:	Wet Weight
Seq Number:	3101396				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	09.11.19 23.00	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	09.11.19 23.00	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	09.11.19 23.00	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	09.11.19 23.00	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	09.11.19 23.00	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	09.11.19 23.00	U	1
Total BTEX		<0.00101	0.00101	mg/kg	09.11.19 23.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	09.11.19 23.00	
4-Bromofluorobenzene	460-00-4	120	%	70-130	09.11.19 23.00	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-002	Date Collected:	09.10.19 09.51	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.11.19 12.50	Basis:	Wet Weight
Seq Number:	3101247				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	09.11.19 16.52	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 16.30	Basis:	Wet Weight
Seq Number:	3101292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	09.12.19 01.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	09.12.19 01.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	09.12.19 01.01	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	09.12.19 01.01	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	09.12.19 01.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	09.12.19 01.01	
o-Terphenyl	84-15-1	77	%	70-135	09.12.19 01.01	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-002	Date Collected:	09.10.19 09.51	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 17.00	Basis:	Wet Weight
Seq Number:	3101396				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	09.12.19 00.18	U	1
Toluene	108-88-3	<0.000992	0.000992	mg/kg	09.12.19 00.18	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	09.12.19 00.18	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	09.12.19 00.18	U	1
o-Xylene	95-47-6	<0.000992	0.000992	mg/kg	09.12.19 00.18	U	1
Total Xylenes	1330-20-7	<0.000992	0.000992	mg/kg	09.12.19 00.18	U	1
Total BTEX		<0.000992	0.000992	mg/kg	09.12.19 00.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.12.19 00.18	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.12.19 00.18	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-003	Date Collected:	09.09.19 15.14	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.11.19 12.50	Basis:	Wet Weight
Seq Number:	3101247				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	09.11.19 16.58	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 16.30	Basis:	Wet Weight
Seq Number:	3101292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	09.12.19 01.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	09.12.19 01.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	09.12.19 01.21	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	09.12.19 01.21	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	09.12.19 01.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	09.12.19 01.21	
o-Terphenyl	84-15-1	74	%	70-135	09.12.19 01.21	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-003	Date Collected:	09.09.19 15.14	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 17.00	Basis:	Wet Weight
Seq Number:	3101396				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	09.12.19 00.38	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	09.12.19 00.38	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	09.12.19 00.38	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	09.12.19 00.38	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	09.12.19 00.38	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	09.12.19 00.38	U	1
Total BTEX		<0.00100	0.00100	mg/kg	09.12.19 00.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	09.12.19 00.38	
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.12.19 00.38	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-004	Date Collected:	09.10.19 09.34	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.11.19 12.50	Basis:	Wet Weight
Seq Number:	3101247				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	09.11.19 17.05	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 16.30	Basis:	Wet Weight
Seq Number:	3101292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	09.12.19 01.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	09.12.19 01.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	09.12.19 01.42	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	09.12.19 01.42	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	09.12.19 01.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	09.12.19 01.42	
o-Terphenyl	84-15-1	70	%	70-135	09.12.19 01.42	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-004	Date Collected:	09.10.19 09.34	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 17.00	Basis:	Wet Weight
Seq Number:	3101396				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	09.12.19 00.58	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	09.12.19 00.58	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	09.12.19 00.58	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	09.12.19 00.58	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	09.12.19 00.58	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	09.12.19 00.58	U	1
Total BTEX		<0.00101	0.00101	mg/kg	09.12.19 00.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	09.12.19 00.58	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.12.19 00.58	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-005	Date Collected:	09.09.19 15.27	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.11.19 12.50	Basis:	Wet Weight
Seq Number:	3101247				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.86	9.86	mg/kg	09.11.19 17.11	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 16.30	Basis:	Wet Weight
Seq Number:	3101292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	09.12.19 02.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	09.12.19 02.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	09.12.19 02.02	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	09.12.19 02.02	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	09.12.19 02.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.12.19 02.02	
o-Terphenyl	84-15-1	81	%	70-135	09.12.19 02.02	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-005	Date Collected:	09.09.19 15.27	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 17.00	Basis:	Wet Weight
Seq Number:	3101396				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	09.12.19 01.18	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	09.12.19 01.18	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	09.12.19 01.18	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	09.12.19 01.18	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	09.12.19 01.18	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	09.12.19 01.18	U	1
Total BTEX		<0.00101	0.00101	mg/kg	09.12.19 01.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	09.12.19 01.18	
4-Bromofluorobenzene	460-00-4	102	%	70-130	09.12.19 01.18	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-006	Date Collected:	09.10.19 09.43	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.11.19 12.50	Basis:	Wet Weight
Seq Number:	3101247				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	09.11.19 17.17	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 16.30	Basis:	Wet Weight
Seq Number:	3101292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	09.12.19 02.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	09.12.19 02.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	09.12.19 02.22	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	09.12.19 02.22	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	09.12.19 02.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	09.12.19 02.22	
o-Terphenyl	84-15-1	73	%	70-135	09.12.19 02.22	

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LT Environmental, Inc., Arvada, CO

Mis Amigos Battery (fire)

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	09.11.19 10.55
Lab Sample Id:	636555-006	Date Collected:	09.10.19 09.43	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.11.19 17.00	Basis:	Wet Weight
Seq Number:	3101396				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	09.12.19 01.37	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	09.12.19 01.37	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	09.12.19 01.37	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	09.12.19 01.37	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	09.12.19 01.37	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	09.12.19 01.37	U	1
Total BTEX		<0.00101	0.00101	mg/kg	09.12.19 01.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.12.19 01.37	
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.12.19 01.37	

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 636555

LT Environmental, Inc.

Mis Amigos Battery (fire)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3101247 Matrix: Solid Date Prep: 09.11.19
MB Sample Id: 7685933-1-BLK LCS Sample Id: 7685933-1-BKS LCSD Sample Id: 7685933-1-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	256	102	255	102	90-110	0	20	mg/kg	09.11.19 09:33	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3101247 Matrix: Soil Date Prep: 09.11.19
Parent Sample Id: 636504-001 MS Sample Id: 636504-001 S MSD Sample Id: 636504-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19000	3990	22200	80	22200	80	90-110	0	20	mg/kg	09.11.19 13:07	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3101247 Matrix: Solid Date Prep: 09.11.19
Parent Sample Id: 636508-003 MS Sample Id: 636508-003 S MSD Sample Id: 636508-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.6	200	219	104	236	112	90-110	7	20	mg/kg	09.11.19 15:01	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3101292 Matrix: Solid Date Prep: 09.11.19
MB Sample Id: 7686107-1-BLK LCS Sample Id: 7686107-1-BKS LCSD Sample Id: 7686107-1-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)	<9.88	1000	907	91	912	91	70-135	1	35	mg/kg	09.11.19 21:56	
Diesel Range Organics (DRO)	<9.88	1000	845	85	870	87	70-135	3	35	mg/kg	09.11.19 21:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		128		127		70-135	%	09.11.19 21:56
o-Terphenyl	124		117		122		70-135	%	09.11.19 21:56

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 636555

LT Environmental, Inc.

Mis Amigos Battery (fire)

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3101292 Matrix: Soil Date Prep: 09.11.19
Parent Sample Id: 636556-009 MS Sample Id: 636556-009 S MSD Sample Id: 636556-009 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)	<9.92	1000	937	94	899	90	70-135	4	35	mg/kg	09.11.19 22:58	
Diesel Range Organics (DRO)	<9.92	1000	885	89	841	85	70-135	5	35	mg/kg	09.11.19 22:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		129		70-135	%	09.11.19 22:58
o-Terphenyl	123		114		70-135	%	09.11.19 22:58

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3101396 Matrix: Solid Date Prep: 09.11.19
MB Sample Id: 7686181-1-BLK LCS Sample Id: 7686181-1-BKS LCSD Sample Id: 7686181-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0881	88	0.0877	88	70-130	0	35	mg/kg	09.11.19 22:00	
Toluene	<0.00100	0.100	0.0977	98	0.0905	91	70-130	8	35	mg/kg	09.11.19 22:00	
Ethylbenzene	<0.00100	0.100	0.115	115	0.112	112	71-129	3	35	mg/kg	09.11.19 22:00	
m,p-Xylenes	<0.00200	0.200	0.235	118	0.228	114	70-135	3	35	mg/kg	09.11.19 22:00	
o-Xylene	<0.00100	0.100	0.117	117	0.115	115	71-133	2	35	mg/kg	09.11.19 22:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		101		70-130	%	09.11.19 22:00
4-Bromofluorobenzene	94		121		117		70-130	%	09.11.19 22:00

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3101396 Matrix: Soil Date Prep: 09.11.19
Parent Sample Id: 636555-001 MS Sample Id: 636555-001 S MSD Sample Id: 636555-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.0865	86	0.0866	86	70-130	0	35	mg/kg	09.11.19 23:19	
Toluene	<0.00101	0.101	0.0858	85	0.0841	83	70-130	2	35	mg/kg	09.11.19 23:19	
Ethylbenzene	<0.00101	0.101	0.104	103	0.101	100	71-129	3	35	mg/kg	09.11.19 23:19	
m,p-Xylenes	<0.00202	0.202	0.215	106	0.208	103	70-135	3	35	mg/kg	09.11.19 23:19	
o-Xylene	<0.00101	0.101	0.110	109	0.106	105	71-133	4	35	mg/kg	09.11.19 23:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		114		70-130	%	09.11.19 23:19
4-Bromofluorobenzene	125		126		70-130	%	09.11.19 23:19

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: 636555

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)

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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:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level II ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Mis Amigos Battery (fire)	Turn Around	
Project Number:	01291917G	Routine	☑
P.O. Number:	1RP-5607	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.6	Thermometer ID		
Received Intact:	(Yes) No	TNM007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	6	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	09/09/19	1500	2'	1	X	X	X
PH01A	S	09/10/19	0951	4'	1	X	X	X
PH02	S	09/09/19	1514	1'	1	X	X	X
PH02A	S	09/10/19	0934	4'	1	X	X	X
PH03	S	09/09/19	1527	2'	1	X	X	X
PH03A	S	09/10/19	0943	4'	1	X	X	X

Work Order Notes

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

Sample Comments

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			09/11/2019 10:20	2		09/11/19 10:55
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Final 1.000

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/11/2019 10:55:00 AM

Work Order #: 636555

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)?	1.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 09/11/2019

Checklist reviewed by: Jessica Kramer Date: 09/12/2019