LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 103
Midland, Texas 79705
432.704.5178

January 13, 2020

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 South St. Francis Drive, #3
Santa Fe, New Mexico 87505

RE: Closure Request
Sizzler State #001H
Remediation Permit Numbers 2RP-4469
Eddy County, New Mexico

Dear Mr. Billings:

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 Sizzler State #001H (Site), located in Unit P, Section 6, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacted soil resulting from a release of fresh water at the Site.

The release is included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The release is categorized as a Tier IV site in the Compliance Agreement, meaning the release occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing. Based on the laboratory analytical results for soil samples collected at the Site, XTO is submitting this Closure Request, describing site assessment activities that have occurred and requesting no further action for the release event.

RELEASE BACKGROUND

On October 23, 2017, a valve on a hydraulic fracturing (frac) tank opened while transferring fluid between tanks. The tank overflowed causing approximately 56 barrels (bbls) of fresh water with limited preservative, biocide, and scale inhibitor to release onto the surface of the well pad. The release affected approximately 10,800 square feet of the well pad; no released fluid escaped the pad. Vacuum trucks were dispatched to the Site to recover free-standing fluids; approximately 50 bbls of fresh water were recovered. XTO reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on November 3, 2017, and was assigned Remediation Permit (RP) Number 2RP-4469 (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 between 51 and 100 feet below ground surface (bgs) based on the nearest water well data. The closest permitted water well with depth to water data is New Mexico Office of the Sate Engineer (NM OSE) Well #C01880, located approximately 3,150 feet northwest of the Site. According to the NM OSE database, the well was installed and depth to water was measured in 1979. Based on the age of the well, LTE field personnel field-verified the presence or absence of the well. The well could not be located within an approximate 1,000 foot radius of the coordinates provided by the NM OSE. As part of remediation efforts at a nearby site, Corral Canyon #1H flowline (2RP-5201), LTE installed six monitoring wells (MW01 through MW06) to assess depth to groundwater. The groundwater monitoring wells are located approximately 5,920 feet east of the Site. Static water level measured in monitoring wells MW01 through MW06 on September 13, 2019, ranged from 57.26 feet bgs in monitoring well MW04 to 62.29 feet bgs in monitoring well MW02 with an average depth to water of 58.80 feet bgs. The depth to water measurements are provided in the table below and the location of the monitoring wells is identified on Figure 1.

MONITORING WELL INFORMATION

Sample Name	Total Depth (feet bgs)	Depth to Water (feet bgs)	Sample Date
MW01	68.44	58.17	09/13/2019
MW02	68.10	62.29	09/13/2019
MW03	75.58	58.30	09/13/2019
MW04	69.08	57.26	09/13/2019
MW05	64.80	58.54	09/13/2019
MW06	64.11	58.25	09/13/2019

Notes:
bgs – below ground surface

Based on depth to water measured recently in the nearby monitoring wells, depth to water at the Site is estimated to be between 51 and 100 feet bgs. The closest continuously flowing water or significant watercourse to the Site is the Pecos River, located approximately 1,750 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a medium-potential karst area.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On February 14, 2018, LTE personnel inspected the Site to evaluate the release extent. Five preliminary soil samples (SS01 through SS05) were collected within the release area to assess for potential soil impacts. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141 and visible observations. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, the soil samples were collected from each sample location from a depth of 0.5 feet bgs.

During October 2019, LTE personnel returned to the site to collect vertical delineation soil samples via hand auger, to confirm the absence of impacted soil in the release area. Soil samples SS01A through SS05A, SS01B, and SS04B were collected from depths ranging from of 2 feet to 4 feet bgs at the SS01 through SS05 preliminary soil sample locations. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for select sample locations were logged on lithologic/soil sampling logs, which are included in Attachment 2. The soil sample locations were mapped utilizing a handheld Global Positing System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

The 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 Hall Environmental Analysis Laboratory in Albuquerque, New Mexico or Xenco Laboratories in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in soil samples SS01/SS01A through SS05/SS05A, SS01B, and SS04B. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment and soil sampling activities were conducted to assess for potential soil impacts resulting from the October 23, 2017, fresh water release at the Site. Laboratory analytical results for soil samples SS01/SS01A through SS05/SS05A, SS01B, and SS04B, collected from depths ranging from 0.5 feet to 4 feet bgs, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and no further remediation was required.

Fresh water with limited biocide, preservative, and scale inhibitor were the only fluids released. The majority of the released fluids were recovered during initial response activities. Based on visual observations, field screening, and laboratory analytical results, no impacted soil was identified as a result of the release. XTO requests no further action for RP Number 2RP-4469. 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.

Aimee Cole
Project Environmental Scientist

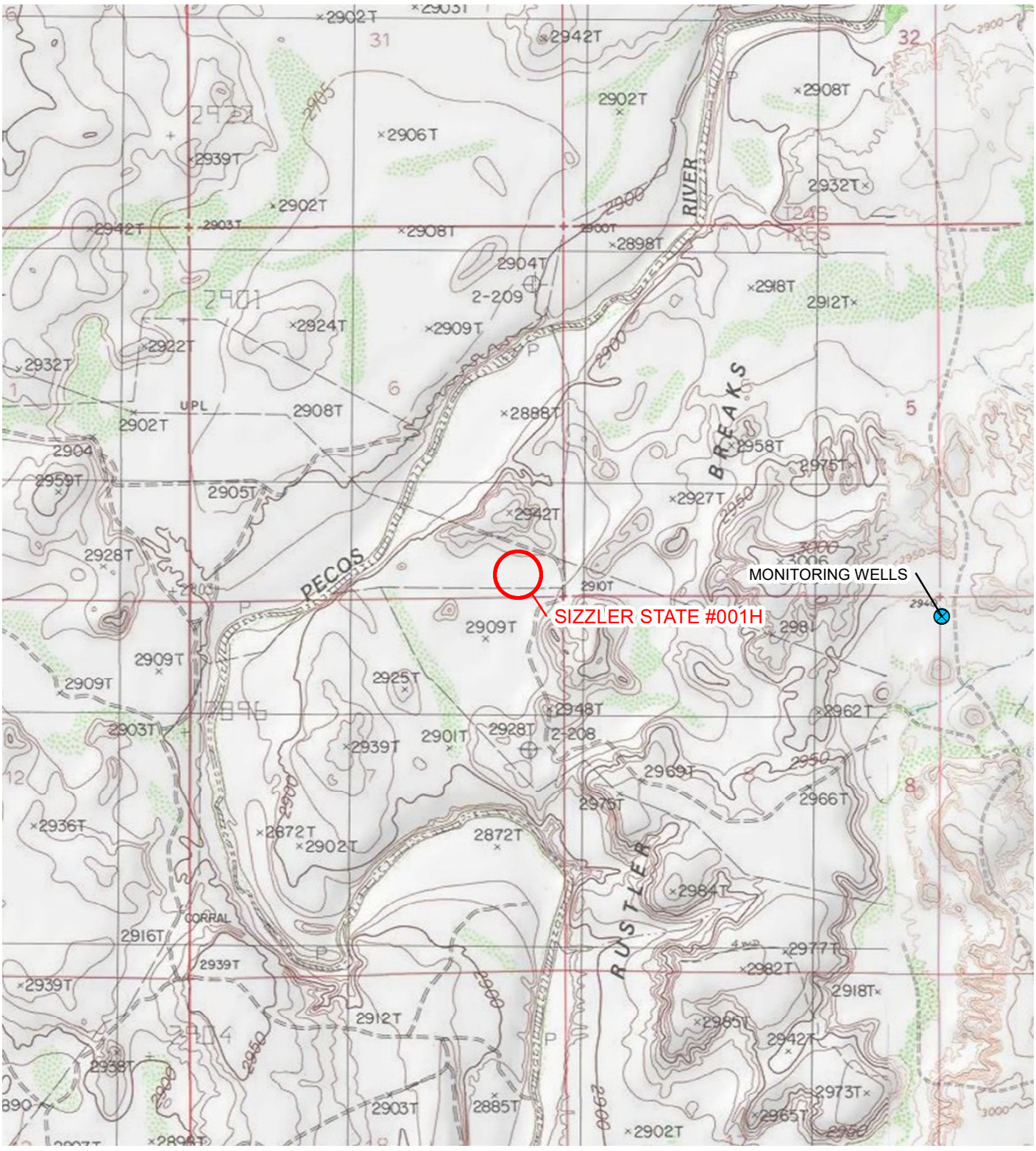
Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Mike Bratcher, NMOCD
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-4469)
Attachment 2	Lithologic/Soil Sample Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-4469

FIGURE 1
SITE LOCATION MAP
SIZZLER STATE #001H
UNIT P SEC 6 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917049_SIZZLER STATE #001H\012917049_FIG01_SL_2018.mxd

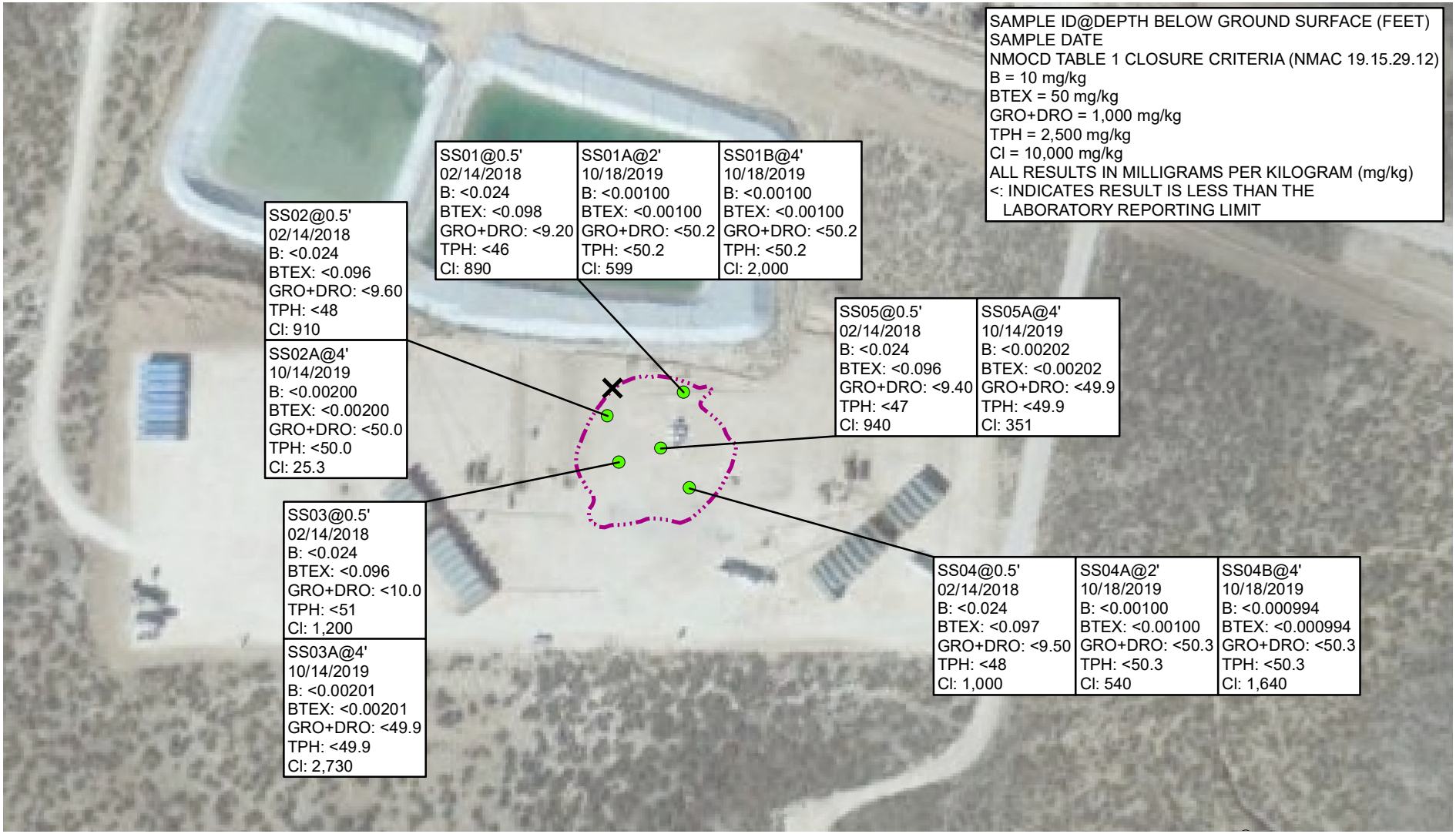


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

RELEASE LOCATION

SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

0 160 320

Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-4469

FIGURE 2
SOIL SAMPLE LOCATIONS
SIZZLER STATE #001H
UNIT P SEC 6 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917049_SIZZLER STATE #001H\012917049_FIG02_PRELIMINARY_4469.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

SIZZLER STATE #001H
REMEDIATION PERMIT NUMBER 2RP-4469
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS01	0.5	02/14/2018	<0.024	<0.049	<0.049	<0.098	<0.098	<4.90	<9.20	<46.0	<9.20	<46.0	890
SS01A	2	10/18/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	599
SS01B	4	10/18/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	2,000
SS02	0.5	02/14/2018	<0.024	<0.048	<0.048	<0.096	<0.096	<4.80	<9.60	<48.0	<9.60	<48.0	910
SS02A	4	10/14/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	25.3
SS03	0.5	02/14/2018	<0.024	<0.048	<0.048	<0.096	<0.096	<4.80	<10.0	<51.0	<10.0	<51.0	1,200
SS03A	4	10/14/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	2,730
SS04	0.5	02/14/2018	<0.024	<0.048	<0.048	<0.097	<0.097	<4.80	<9.50	<48.0	<9.50	<48.0	1,000
SS04A	2	10/18/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.3	<50.3	<50.3	<50.3	<50.3	540
SS04B	4	10/18/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<50.3	<50.3	<50.3	<50.3	<50.3	1,640
SS05	0.5	02/14/2018	<0.024	<0.048	<0.048	<0.096	<0.096	<4.80	<9.40	<47.0	<9.40	<47.0	940
SS05A	4	10/14/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	351
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-4469)

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 03 2017
RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1731041742

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy 5380	Contact: Kyle Littrell
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 432-221-7331
Facility Name: Sizzler State #001H	Facility Type: Exploration and Production

Surface Owner: State of NM	Mineral Owner: ~~Federal~~ State	API No. 30-015-43956

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	6	25S	29E	265	South	725	East	Eddy

Latitude 32.152538° **Longitude** -104.017833°

NATURE OF RELEASE

Type of Release Fresh water with < .5 gallon mixture of preservative, biocide and scale inhibitor	Volume of Release 56 bbls	Volume Recovered 50 bbls
Source of Release Frac Tanks	Date and Hour of Occurrence 10/23/2017 5:45 pm	Date and Hour of Discovery 10/23/2017 5:45 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher and Crystal Weaver (NMOCD), Amber Groves (SLO)	
By Whom? Amy Ruth	Date and Hour 10/24/2017 3:59 pm by email	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
During transfer of fluid between frac tanks, a valve on a frac tank opened overflowing the tank and distributed water to the well pad. The open valve was then securely closed. Future projects will be designed to prevent recurrence.

Describe Area Affected and Cleanup Action Taken.*
The leak affected approximately 10,800 square feet of caliche pad. Free standing fluids were recovered.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Kyle Littrell	Approved by Environmental Specialist:
Title: Environmental Coordinator	Approval Date: 11/6/17 Expiration Date: N/A
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval: see attached Attached ☒ 2RP-4469
Date: 11/3/2017 Phone: 432-221-7331	

* Attach Additional Sheets If Necessary

Please refer to the New Mexico Oil Conservation Division Website for updated form(s) at: http://www.emnrd.state.nm.us/OCD/forms.html Thank you

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-4469
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-4469
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.152538 Longitude W -104.017833
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Sizzler State #001H	Site Type: Production Well Facility
Date Release Discovered: 10/23/2017	API# *(if applicable):* 30-015-43956

Unit Letter	Section	Township	Range	County
P	6	25S	29E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☐ Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe) Fresh water with < 0.5 gallon of preservative, biocide and scale inhibitor	Volume/Weight Released (provide units) 56 bbls	Volume/Weight Recovered (provide units) 50 bbls

Cause of Release
During transfer of fluid between frac tanks, a valve on a frac tank opened. The tank overflowed and released fresh water to the well pad. Free-standing fluids were recovered.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4469
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was greater than 25 bbls.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
By Amy Ruth to Mike Bratcher/Crystal Weaver (NMOCD) and Amber Groves (SLO) on 10/24/2017 at 3:59 pm via 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: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 1-10-2020

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	2RP-4469
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?	51-100 (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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4469
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: 1-10-2020

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	2RP-4469
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: 1-10-2020

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: _____

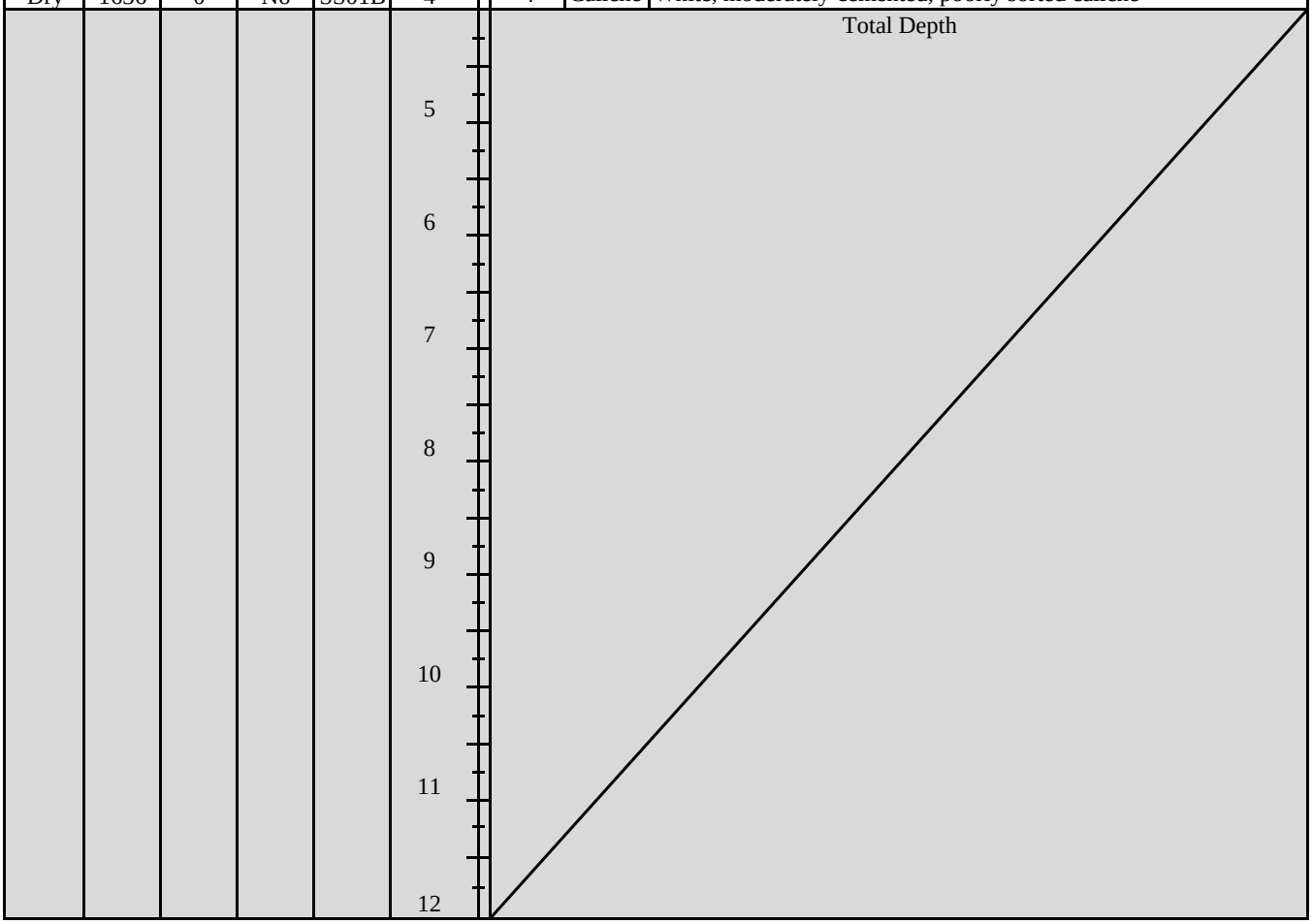
ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLE LOGS

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

Identifier: SS01	Date: 10/18/19
Project Name: Sizzler State #001H	RP Number: 2RP-4469
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Anna Byers / Method: Back Hoe
Field Screening: Mini Rae PID and HACH Low Range Chloride Test Strips	Hole Diameter: N/A / Total Depth: 4 ft

Comments: Chloride concentrations calculated without 40% correction factor
SS01 at 0.5 ft depth collected previously

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	980	0	No		0	0.5 ft	Caliche	Non-native (pad surface)
Dry	648	0	No	SS01A	2	2	Caliche	White, well-cemented, poorly sorted caliche
Dry	1636	0	No	SS01B	4	4	Caliche	White, moderately-cemented, poorly sorted caliche
								Total Depth



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

Identifier: SS04	Date: 10/18/19
Project Name: Sizzler State #001H	RP Number: 2RP-4469

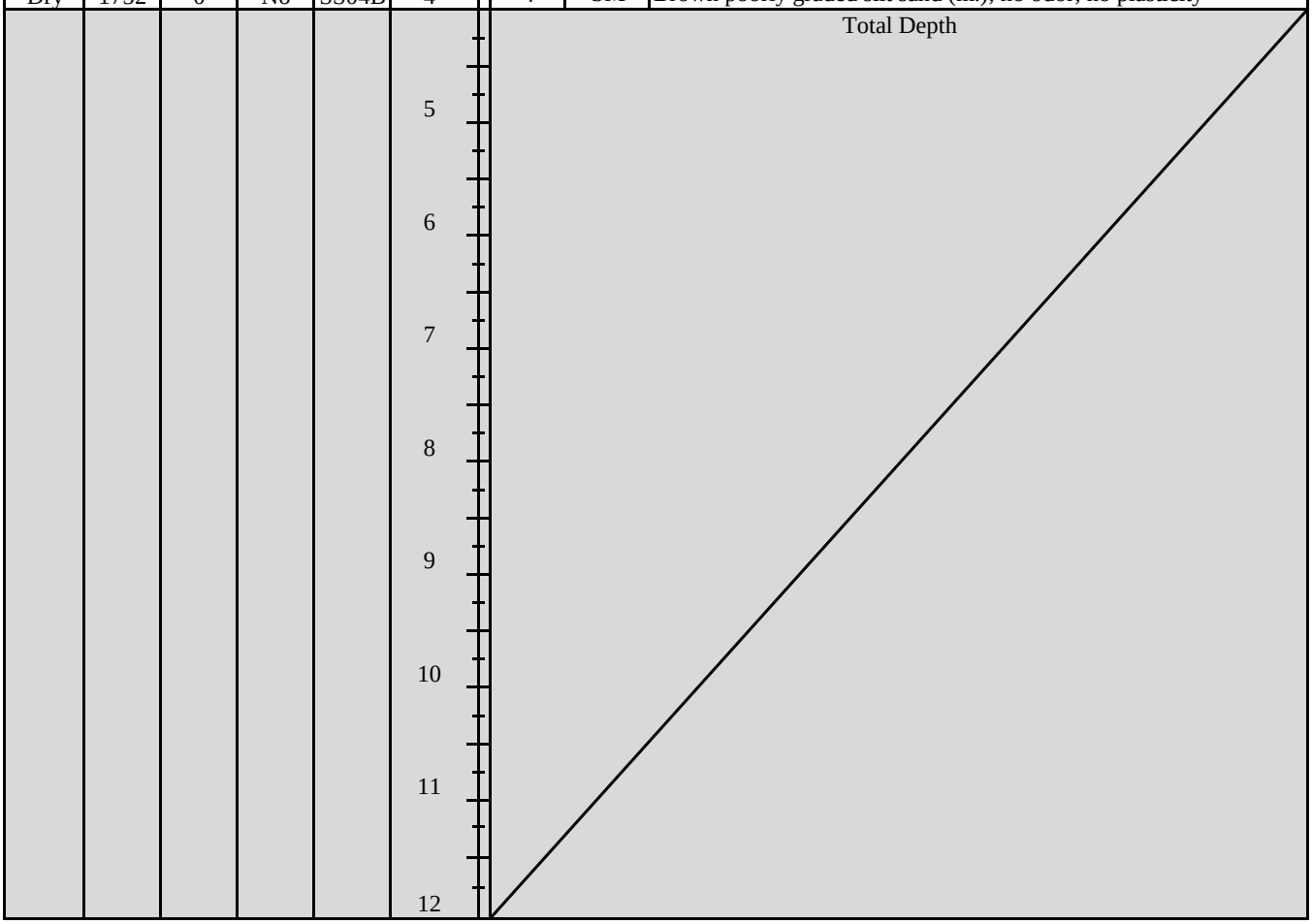
LITHOLOGIC / SOIL SAMPLING LOG

Logged By: Anna Byers	Method: Back Hoe
Hole Diameter: N/A	Total Depth: 4 ft

Field Screening: Mini Rae PID and HACH Low Range Chloride Test Strips

Comments: Chloride concentrations calculated without 40% correction factor
SS01 at 0.5 ft depth collected previously

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	488	0	No		0	0.5 ft	Caliche	Non-native (pad surface)
Dry	648	0	No	SS04A	2	2	SM	Brown poorly graded silt sand (m.); no odor, no plasticity
Dry	1752	0	No	SS04B	4	4	SM	Brown poorly graded silt sand (m.); no odor, no plasticity
								Total Depth



ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of well pad release area.

Photograph 2: View of well pad release area.

Photograph 3: View of well pad release area.

Photograph 4: View of well pad release area.

Sizzler State #001H
Eddy County, New Mexico
Photographs Taken: February 2018

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 27, 2018

Kyle Littlrell
LTE
3300 N A St Bldg 1 #103
Midland, TX 79705
TEL: (432) 704-5178
FAX

RE: Sizzler State 001H OrderNo.: 1802A28

Dear Kyle Littlrell:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/17/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1802A28**
Date Reported: **2/27/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE **Client Sample ID:** SS01
Project: Sizzler State 001H **Collection Date:** 2/14/2018 5:00:00 PM
Lab ID: 1802A28-001 **Matrix:** SOIL **Received Date:** 2/17/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/21/2018 5:22:32 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/21/2018 5:22:32 PM
Surr: DNOP	90.9	70-130		%Rec	1	2/21/2018 5:22:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/21/2018 8:30:49 PM
Surr: BFB	89.6	15-316		%Rec	1	2/21/2018 8:30:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	2/21/2018 8:30:49 PM
Toluene	ND	0.049		mg/Kg	1	2/21/2018 8:30:49 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/21/2018 8:30:49 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/21/2018 8:30:49 PM
Surr: 4-Bromofluorobenzene	89.3	80-120		%Rec	1	2/21/2018 8:30:49 PM
EPA METHOD 300.0: ANIONS						Analyst: **CJS**
Chloride	890	30		mg/Kg	20	2/23/2018 7:22:25 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802A28**
Date Reported: **2/27/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE **Client Sample ID:** SS02
Project: Sizzler State 001H **Collection Date:** 2/14/2018 5:05:00 PM
Lab ID: 1802A28-002 **Matrix:** SOIL **Received Date:** 2/17/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/21/2018 6:28:29 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/21/2018 6:28:29 PM
Surr: DNOP	92.5	70-130		%Rec	1	2/21/2018 6:28:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2018 10:37:48 AM
Surr: BFB	91.2	15-316		%Rec	1	2/21/2018 10:37:48 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	2/21/2018 10:37:48 AM
Toluene	ND	0.048		mg/Kg	1	2/21/2018 10:37:48 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2018 10:37:48 AM
Xylenes, Total	ND	0.096		mg/Kg	1	2/21/2018 10:37:48 AM
Surr: 4-Bromofluorobenzene	89.9	80-120		%Rec	1	2/21/2018 10:37:48 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	910	30		mg/Kg	20	2/23/2018 12:09:28 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802A28**
Date Reported: **2/27/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE **Client Sample ID:** SS03
Project: Sizzler State 001H **Collection Date:** 2/14/2018 5:10:00 PM
Lab ID: 1802A28-003 **Matrix:** SOIL **Received Date:** 2/17/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2018 6:50:16 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	2/21/2018 6:50:16 PM
Surr: DNOP	92.8	70-130		%Rec	1	2/21/2018 6:50:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2018 11:47:57 AM
Surr: BFB	89.4	15-316		%Rec	1	2/21/2018 11:47:57 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	2/21/2018 11:47:57 AM
Toluene	ND	0.048		mg/Kg	1	2/21/2018 11:47:57 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2018 11:47:57 AM
Xylenes, Total	ND	0.096		mg/Kg	1	2/21/2018 11:47:57 AM
Surr: 4-Bromofluorobenzene	89.6	80-120		%Rec	1	2/21/2018 11:47:57 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1200	30		mg/Kg	20	2/23/2018 12:46:41 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802A28**
Date Reported: **2/27/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE **Client Sample ID:** SS04
Project: Sizzler State 001H **Collection Date:** 2/14/2018 5:15:00 PM
Lab ID: 1802A28-004 **Matrix:** SOIL **Received Date:** 2/17/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/21/2018 7:12:14 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/21/2018 7:12:14 PM
Surr: DNOP	94.4	70-130		%Rec	1	2/21/2018 7:12:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2018 12:58:21 PM
Surr: BFB	89.5	15-316		%Rec	1	2/21/2018 12:58:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	2/21/2018 12:58:21 PM
Toluene	ND	0.048		mg/Kg	1	2/21/2018 12:58:21 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2018 12:58:21 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/21/2018 12:58:21 PM
Surr: 4-Bromofluorobenzene	89.4	80-120		%Rec	1	2/21/2018 12:58:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1000	30		mg/Kg	20	2/23/2018 12:59:05 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802A28**
Date Reported: **2/27/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE **Client Sample ID:** SS05
Project: Sizzler State 001H **Collection Date:** 2/14/2018 5:20:00 PM
Lab ID: 1802A28-005 **Matrix:** SOIL **Received Date:** 2/17/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/21/2018 7:34:00 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/21/2018 7:34:00 PM
Surr: DNOP	96.4	70-130		%Rec	1	2/21/2018 7:34:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2018 1:21:40 PM
Surr: BFB	86.4	15-316		%Rec	1	2/21/2018 1:21:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	2/21/2018 1:21:40 PM
Toluene	ND	0.048		mg/Kg	1	2/21/2018 1:21:40 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2018 1:21:40 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/21/2018 1:21:40 PM
Surr: 4-Bromofluorobenzene	87.9	80-120		%Rec	1	2/21/2018 1:21:40 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	940	30		mg/Kg	20	2/23/2018 1:11:30 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802A28**

27-Feb-18

Client: LTE

Project: Sizzler State 001H

Sample ID	**MB-36684**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**36684**	RunNo:	**49353**					
Prep Date:	**2/22/2018**	Analysis Date:	**2/23/2018**	SeqNo:	**1593362**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-36684**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**36684**	RunNo:	**49353**					
Prep Date:	**2/22/2018**	Analysis Date:	**2/23/2018**	SeqNo:	**1593363**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.4	90	110			

Sample ID	**MB-36693**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**36693**	RunNo:	**49346**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/23/2018**	SeqNo:	**1594198**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-36693**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**36693**	RunNo:	**49346**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/23/2018**	SeqNo:	**1594199**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802A28**

27-Feb-18

Client: LTE

Project: Sizzler State 001H

Sample ID	**LCS-36619**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**36619**		RunNo:	**49268**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590084**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.5	70	130			
Surr: DNOP	4.4		5.000		88.8	70	130			

Sample ID	**MB-36619**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**36619**		RunNo:	**49268**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590085**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

Sample ID	**1802A28-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**SS01**	Batch ID:	**36619**		RunNo:	**49268**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590871**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.86	4.015	82.5	55.8	125			
Surr: DNOP	4.3		5.086		83.7	70	130			

Sample ID	**1802A28-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**SS01**	Batch ID:	**36619**		RunNo:	**49268**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590872**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.2	45.83	4.015	86.5	55.8	125	5.16	20	
Surr: DNOP	3.6		4.583		79.2	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802A28**

27-Feb-18

Client: LTE

Project: Sizzler State 001H

Sample ID	**MB-36613**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**36613**		RunNo:	**49302**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590906**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.2	15	316			

Sample ID	**LCS-36613**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**36613**		RunNo:	**49302**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590907**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	75.9	131			
Surr: BFB	1000		1000		102	15	316			

Sample ID	**1802A28-003AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**SS03**	Batch ID:	**36613**		RunNo:	**49302**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590919**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.56	0	121	77.8	128			
Surr: BFB	1000		982.3		104	15	316			

Sample ID	**1802A28-003AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**SS03**	Batch ID:	**36613**		RunNo:	**49302**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590920**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.63	0	134	77.8	128	10.4	20	S
Surr: BFB	1000		985.2		104	15	316	0	0	

Sample ID	**MB-36607**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**36607**		RunNo:	**49303**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1590999**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.4	15	316			

Sample ID	**LCS-36607**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**36607**		RunNo:	**49303**				
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**		SeqNo:	**1591000**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802A28**

27-Feb-18

Client: LTE

Project: Sizzler State 001H

Sample ID	**LCS-36607**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**36607**	RunNo:	**49303**					
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**	SeqNo:	**1591000**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.7	75.9	131			
Surr: BFB	1100		1000		107	15	316			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802A28**

27-Feb-18

Client: LTE

Project: Sizzler State 001H

Sample ID	**MB-36613**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**36613**	RunNo:	**49302**					
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**	SeqNo:	**1590958**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.0	80	120			

Sample ID	**LCS-36613**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**36613**	RunNo:	**49302**					
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**	SeqNo:	**1590959**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	110	77.3	128			
Toluene	1.1	0.050	1.000	0	108	79.2	125			
Ethylbenzene	1.1	0.050	1.000	0	107	80.7	127			
Xylenes, Total	3.3	0.10	3.000	0	110	81.6	129			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	80	120			

Sample ID	**1802A28-002AMS**	SampType:	**MS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**SS02**	Batch ID:	**36613**	RunNo:	**49302**					
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**	SeqNo:	**1590961**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.024	0.9597	0	124	80.9	132			
Toluene	1.2	0.048	0.9597	0.009836	124	79.8	136			
Ethylbenzene	1.2	0.048	0.9597	0	126	79.4	140			
Xylenes, Total	3.7	0.096	2.879	0	127	78.5	142			
Surr: 4-Bromofluorobenzene	0.86		0.9597		89.3	80	120			

Sample ID	**1802A28-002AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**SS02**	Batch ID:	**36613**	RunNo:	**49302**					
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**	SeqNo:	**1590962**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9470	0	121	80.9	132	4.44	20	
Toluene	1.2	0.047	0.9470	0.009836	121	79.8	136	3.85	20	
Ethylbenzene	1.2	0.047	0.9470	0	122	79.4	140	4.80	20	
Xylenes, Total	3.5	0.095	2.841	0	125	78.5	142	3.00	20	
Surr: 4-Bromofluorobenzene	0.85		0.9470		90.1	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802A28**

27-Feb-18

Client: LTE

Project: Sizzler State 001H

Sample ID	**MB-36607**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**36607**	RunNo:	**49303**					
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**	SeqNo:	**1591037**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.83		1.000		82.8	80	120			

Sample ID	**LCS-36607**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**36607**	RunNo:	**49303**					
Prep Date:	**2/20/2018**	Analysis Date:	**2/21/2018**	SeqNo:	**1591038**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.4	77.3	128			
Toluene	0.88	0.050	1.000	0	87.9	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	95.7	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	95.2	81.6	129			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.6	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LTE MIDLAND Work Order Number: 1802A28 RcptNo: 1

Received By: Ashley Gallegos 2/17/2018 10:00:00 AM AG

Completed By: Ashley Gallegos 2/19/2018 3:01:54 PM AG

Reviewed By: JG 02/19/18 labeled by: SEE 02/19/18

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Yes			

Chain-of-Custody Record

Client: LTE Permian

Mailing Address: 3300 N. A. St
Midland TX 79705

Phone #: 432-704-5178

email or Fax#: Abaker@ltenv.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☒ EDD (Type) PDF

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Sizzler State #001H

Project #: 30-015-43956

Project Manager: XTO - Kyle Littrell
Direct Bill

Sampler: D. Burns 701-570-4727

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.9+0.1=2.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1802A28	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel) +MRO	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride 300.1	Air Bubbles (Y or N)
2-14-18	1700	S	SS01	1-4oz	cool	-001	X		X									X	
	1705		SS02			-002													
	1710		SS03			-003													
	1715		SS04			-004													
	1720		SS05			-005													

Date	Time	Relinquished by:	Received by:	Date	Time
2-16-18	1530			2/16/18	1530
2/16/18	1900			02/17/18	10.00

Remarks:
API: 30-015-43956
2RP-4469

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Analytical Report 640162

for

LT Environmental, Inc.

Project Manager: Aimee Cole

Sizzler State #001H

012917049

21-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

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

21-OCT-19

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

Reference: XENCO Report No(s): **640162**
Sizzler State #001H
Project Address: Rural Eddy County

Aimee Cole:

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) 640162. 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. 640162 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 640162

LT Environmental, Inc., Arvada, CO

Sizzler State #001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS02A	S	10-14-19 13:15	4 ft	640162-001
SS03A	S	10-14-19 13:20	4 ft	640162-002
SS05A	S	10-14-19 13:25	4 ft	640162-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sizzler State #001H

Project ID: *012917049*
Work Order Number(s): *640162*

Report Date: *21-OCT-19*
Date Received: *10/16/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3104843 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 640162-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640162-001.
The Laboratory Control Sample for Toluene, Benzene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3104855 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 640162

LT Environmental, Inc., Arvada, CO

Project Name: Sizzler State #001H

Project Id: 012917049
Contact: Aimee Cole
Project Location: Rural Eddy County

Date Received in Lab: Wed Oct-16-19 09:52 am
Report Date: 21-OCT-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	640162-001		640162-002		640162-003					
	Field Id:	SS02A		SS03A		SS05A					
	Depth:	4- ft		4- ft		4- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Oct-14-19 13:15		Oct-14-19 13:20		Oct-14-19 13:25					
BTEX by EPA 8021B SUB: T104704400-19-19	*Extracted:*	Oct-18-19 09:00		Oct-18-19 16:30		Oct-18-19 16:30					
	Analyzed:	Oct-18-19 12:28		** ** ** **		** ** ** **					
	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		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202				
m,p-Xylenes		<0.00401	0.00401	<0.00402	0.00402	<0.00403	0.00403				
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202				
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202				
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202				
Chloride by EPA 300 SUB: T104704400-19-19	*Extracted:*	Oct-17-19 13:45		Oct-17-19 13:45		Oct-17-19 14:00					
	Analyzed:	Oct-17-19 18:53		Oct-17-19 18:59		Oct-17-19 19:35					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		25.3	5.00	2730	25.2	351	4.95				
TPH by SW8015 Mod SUB: T104704400-19-19	*Extracted:*	Oct-18-19 13:00		Oct-18-19 16:00		Oct-18-19 12:00					
	Analyzed:	Oct-19-19 09:04		Oct-19-19 08:31		Oct-18-19 21:25					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9				
Total GRO-DRO		<50.0	50.0	<49.9	49.9	<49.9	49.9				
Total TPH		<50.0	50.0	<49.9	49.9	<49.9	49.9				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640162

LT Environmental, Inc., Arvada, CO

Sizzler State #001H

Sample Id:	**SS02A**	Matrix:	Soil	Date Received:	10.16.19 09.52
Lab Sample Id:	640162-001	Date Collected:	10.14.19 13.15	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.17.19 13.45	Basis:	Wet Weight
Seq Number:	3104670			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.3**	5.00	mg/kg	10.17.19 18.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.19 13.00	Basis:	Wet Weight
Seq Number:	3104820			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.19.19 09.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.19.19 09.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.19.19 09.04	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.19.19 09.04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.19.19 09.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	10.19.19 09.04	
o-Terphenyl	84-15-1	114	%	70-135	10.19.19 09.04	

Certificate of Analytical Results 640162

LT Environmental, Inc., Arvada, CO

Sizzler State #001H

Sample Id:	**SS02A**	Matrix:	Soil	Date Received:	10.16.19 09.52
Lab Sample Id:	640162-001	Date Collected:	10.14.19 13.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.19 09.00	Basis:	Wet Weight
Seq Number:	3104843			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.18.19 12.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.18.19 12.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.18.19 12.28	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.18.19 12.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.18.19 12.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.18.19 12.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.18.19 12.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	10.18.19 12.28	
4-Bromofluorobenzene	460-00-4	99	%	70-130	10.18.19 12.28	

Certificate of Analytical Results 640162

LT Environmental, Inc., Arvada, CO

Sizzler State #001H

Sample Id:	**SS03A**	Matrix:	Soil	Date Received:	10.16.19 09.52
Lab Sample Id:	640162-002	Date Collected:	10.14.19 13.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.17.19 13.45	Basis:	Wet Weight
Seq Number:	3104670			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2730**	25.2	mg/kg	10.17.19 18.59		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.19 16.00	Basis:	Wet Weight
Seq Number:	3104814			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.19.19 08.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.19.19 08.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.19.19 08.31	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.19.19 08.31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.19.19 08.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.19.19 08.31	
o-Terphenyl	84-15-1	100	%	70-135	10.19.19 08.31	

Certificate of Analytical Results 640162

LT Environmental, Inc., Arvada, CO

Sizzler State #001H

Sample Id:	**SS03A**	Matrix:	Soil	Date Received:	10.16.19 09.52
Lab Sample Id:	640162-002	Date Collected:	10.14.19 13.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.19 16.30	Basis:	Wet Weight
Seq Number:	3104855			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.18.19 06.35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.18.19 06.35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.18.19 06.35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.18.19 06.35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.18.19 06.35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.18.19 06.35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.18.19 06.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	10.18.19 06.35	
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.18.19 06.35	

Certificate of Analytical Results 640162

LT Environmental, Inc., Arvada, CO

Sizzler State #001H

Sample Id:	**SS05A**	Matrix:	Soil	Date Received:	10.16.19 09.52
Lab Sample Id:	640162-003	Date Collected:	10.14.19 13.25	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.17.19 14.00	Basis:	Wet Weight
Seq Number:	3104671			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**351**	4.95	mg/kg	10.17.19 19.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.19 12.00	Basis:	Wet Weight
Seq Number:	3104819			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.18.19 21.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.18.19 21.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.18.19 21.25	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.18.19 21.25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.18.19 21.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.18.19 21.25	
o-Terphenyl	84-15-1	106	%	70-135	10.18.19 21.25	

Certificate of Analytical Results 640162

LT Environmental, Inc., Arvada, CO

Sizzler State #001H

Sample Id:	**SS05A**	Matrix:	Soil	Date Received:	10.16.19 09.52
Lab Sample Id:	640162-003	Date Collected:	10.14.19 13.25	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.19 16.30	Basis:	Wet Weight
Seq Number:	3104855			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.18.19 06.55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.18.19 06.55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.18.19 06.55	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.18.19 06.55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.18.19 06.55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.18.19 06.55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.18.19 06.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	10.18.19 06.55	
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.18.19 06.55	

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 640162

LT Environmental, Inc.

Sizzler State #001H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3104670 — Matrix: Solid — Date Prep: 10.17.19
MB Sample Id: 7688364-1-BLK — LCS Sample Id: 7688364-1-BKS — LCSD Sample Id: 7688364-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	255	102	254	102	90-110	0	20	mg/kg	10.17.19 15:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3104671 — Matrix: Solid — Date Prep: 10.17.19
MB Sample Id: 7688365-1-BLK — LCS Sample Id: 7688365-1-BKS — LCSD Sample Id: 7688365-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	253	101	254	102	90-110	0	20	mg/kg	10.17.19 19:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3104670 — Matrix: Soil — Date Prep: 10.17.19
Parent Sample Id: 639881-001 — MS Sample Id: 639881-001 S — MSD Sample Id: 639881-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.12	252	262	101	258	99	90-110	2	20	mg/kg	10.17.19 15:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3104670 — Matrix: Soil — Date Prep: 10.17.19
Parent Sample Id: 640104-002 — MS Sample Id: 640104-002 S — MSD Sample Id: 640104-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	528	250	759	92	734	82	90-110	3	20	mg/kg	10.17.19 17:36	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3104671 — Matrix: Soil — Date Prep: 10.17.19
Parent Sample Id: 640096-004 — MS Sample Id: 640096-004 S — MSD Sample Id: 640096-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	138	250	386	99	383	98	90-110	1	20	mg/kg	10.17.19 21:04	

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 640162

LT Environmental, Inc.

Sizzler State #001H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3104671 Matrix: Soil Date Prep: 10.17.19
Parent Sample Id: 640162-003 MS Sample Id: 640162-003 S MSD Sample Id: 640162-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	351	248	582	93	581	93	90-110	0	20	mg/kg	10.17.19 19:41	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3104819 Matrix: Solid Date Prep: 10.18.19
MB Sample Id: 7688447-1-BLK LCS Sample Id: 7688447-1-BKS LCSD Sample Id: 7688447-1-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	1050	105	1050	105	70-135	0	20	mg/kg	10.18.19 12:54	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1070	107	70-135	2	20	mg/kg	10.18.19 12:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		108		108		70-135	%	10.18.19 12:54
o-Terphenyl	119		115		112		70-135	%	10.18.19 12:54

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3104820 Matrix: Solid Date Prep: 10.18.19
MB Sample Id: 7688450-1-BLK LCS Sample Id: 7688450-1-BKS LCSD Sample Id: 7688450-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1010	101	70-135	4	20	mg/kg	10.18.19 22:29	
Diesel Range Organics (DRO)	<15.0	1000	1070	107	1030	103	70-135	4	20	mg/kg	10.18.19 22:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		109		104		70-135	%	10.18.19 22:29
o-Terphenyl	107		109		110		70-135	%	10.18.19 22:29

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3104814 Matrix: Solid Date Prep: 10.18.19
MB Sample Id: 7688470-1-BLK LCS Sample Id: 7688470-1-BKS LCSD Sample Id: 7688470-1-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	1170	117	1180	118	70-135	1	20	mg/kg	10.18.19 21:18	
Diesel Range Organics (DRO)	<15.0	1000	1030	103	1020	102	70-135	1	20	mg/kg	10.18.19 21:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		125		124		70-135	%	10.18.19 21:18
o-Terphenyl	101		109		109		70-135	%	10.18.19 21:18

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 640162

LT Environmental, Inc.

Sizzler State #001H

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3104819 | Matrix: Solid | Date Prep: 10.18.19
MB Sample Id: 7688447-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.18.19 12:34	

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3104820 | Matrix: Solid | Date Prep: 10.18.19
MB Sample Id: 7688450-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.18.19 22:08	

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3104814 | Matrix: Solid | Date Prep: 10.18.19
MB Sample Id: 7688470-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.18.19 21:00	

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3104819 | Matrix: Soil | Date Prep: 10.18.19
Parent Sample Id: 640269-001 | MS Sample Id: 640269-001 S | MSD Sample Id: 640269-001 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	999	1070	107	1090	109	70-135	2	20	mg/kg	10.18.19 13:57	
Diesel Range Organics (DRO)	<15.0	999	1120	112	1170	117	70-135	4	20	mg/kg	10.18.19 13:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		110		70-135	%	10.18.19 13:57
o-Terphenyl	114		116		70-135	%	10.18.19 13:57

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 640162

LT Environmental, Inc.

Sizzler State #001H

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3104820 — Matrix: Soil — Date Prep: 10.18.19
Parent Sample Id: 640249-001 — MS Sample Id: 640249-001 S — MSD Sample Id: 640249-001 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)	24.2	997	1100	108	1100	108	70-135	0	20	mg/kg	10.18.19 23:33	
Diesel Range Organics (DRO)	<15.0	997	1170	117	1140	114	70-135	3	20	mg/kg	10.18.19 23:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		110		70-135	%	10.18.19 23:33
o-Terphenyl	119		113		70-135	%	10.18.19 23:33

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3104814 — Matrix: Soil — Date Prep: 10.18.19
Parent Sample Id: 640378-001 — MS Sample Id: 640378-001 S — MSD Sample Id: 640378-001 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	998	1190	119	1210	121	70-135	2	20	mg/kg	10.18.19 22:13	
Diesel Range Organics (DRO)	<15.0	998	1140	114	1180	118	70-135	3	20	mg/kg	10.18.19 22:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		126		70-135	%	10.18.19 22:13
o-Terphenyl	120		90		70-135	%	10.18.19 22:13

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104843 — Matrix: Solid — Date Prep: 10.18.19
MB Sample Id: 7688505-1-BLK — LCS Sample Id: 7688505-1-BKS — LCSD Sample Id: 7688505-1-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	0.0884	88	0.0886	89	70-130	0	35	mg/kg	10.18.19 10:28	
Toluene	<0.00200	0.100	0.0909	91	0.0912	91	70-130	0	35	mg/kg	10.18.19 10:28	
Ethylbenzene	<0.00200	0.100	0.0998	100	0.100	100	70-130	0	35	mg/kg	10.18.19 10:28	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.198	99	70-130	1	35	mg/kg	10.18.19 10:28	
o-Xylene	<0.00200	0.100	0.105	105	0.107	107	70-130	2	35	mg/kg	10.18.19 10:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		90		91		70-130	%	10.18.19 10:28
4-Bromofluorobenzene	99		118		118		70-130	%	10.18.19 10:28

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

QC Summary 640162

LT Environmental, Inc.

Sizzler State #001H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104855 — Matrix: Solid — Date Prep: 10.18.19
MB Sample Id: 7688520-1-BLK — LCS Sample Id: 7688520-1-BKS — LCSD Sample Id: 7688520-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000730	0.100	0.0978	98	0.103	103	70-130	5	35	mg/kg	10.18.19 04:15	
Toluene	<0.00200	0.100	0.109	109	0.105	105	70-130	4	35	mg/kg	10.18.19 04:15	
Ethylbenzene	<0.00200	0.100	0.0997	100	0.104	104	70-130	4	35	mg/kg	10.18.19 04:15	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.204	102	70-130	3	35	mg/kg	10.18.19 04:15	
o-Xylene	<0.00200	0.100	0.101	101	0.106	106	70-130	5	35	mg/kg	10.18.19 04:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		88		93		70-130	%	10.18.19 04:15
4-Bromofluorobenzene	70		98		102		70-130	%	10.18.19 04:15

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104843 — Matrix: Soil — Date Prep: 10.18.19
Parent Sample Id: 640162-001 — MS Sample Id: 640162-001 S — MSD Sample Id: 640162-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0757	76	0.0618	62	70-130	20	35	mg/kg	10.18.19 11:08	X
Toluene	<0.00199	0.0996	0.0778	78	0.0636	64	70-130	20	35	mg/kg	10.18.19 11:08	X
Ethylbenzene	<0.00199	0.0996	0.0861	86	0.0702	70	70-130	20	35	mg/kg	10.18.19 11:08	
m,p-Xylenes	<0.00398	0.199	0.169	85	0.139	70	70-130	19	35	mg/kg	10.18.19 11:08	
o-Xylene	<0.00199	0.0996	0.0911	91	0.0757	76	70-130	18	35	mg/kg	10.18.19 11:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		91		70-130	%	10.18.19 11:08
4-Bromofluorobenzene	119		115		70-130	%	10.18.19 11:08

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104855 — Matrix: Soil — Date Prep: 10.18.19
Parent Sample Id: 640269-001 — MS Sample Id: 640269-001 S — MSD Sample Id: 640269-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0716	72	0.0727	73	70-130	2	35	mg/kg	10.18.19 04:55	
Toluene	<0.00199	0.0996	0.0797	80	0.0782	78	70-130	2	35	mg/kg	10.18.19 04:55	
Ethylbenzene	<0.00199	0.0996	0.0846	85	0.0813	81	70-130	4	35	mg/kg	10.18.19 04:55	
m,p-Xylenes	<0.00398	0.199	0.157	79	0.161	81	70-130	3	35	mg/kg	10.18.19 04:55	
o-Xylene	<0.00199	0.0996	0.0819	82	0.0871	87	70-130	6	35	mg/kg	10.18.19 04:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		92		70-130	%	10.18.19 04:55
4-Bromofluorobenzene	107		96		70-130	%	10.18.19 04:55

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

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 www.xenco.com

Work Order No: 640162

Page 1 of 1

Project Manager:	Aimee Cole	Bill to: (if different)	KYLE LITTRELL
Company Name:	LT Environmental	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E. Greene Street
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad NM 88220
Phone:	720 384 7365	Email:	acole@ltenv.com & abyers@ltenv.com

Work Order Comments

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

Project Name:	Sizzler State #001H	Turn Around	
Project Number:	012917049	Routine ☐	
Project Location	Rural Eddy County	Rush: 5 day	
Sampler's Name:	Anna Byers	Due Date:	
PO #:	2RP-4469	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)
Temperature (°C):	1.4	Thermometer ID	T-NM-007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes No (N/A)	Total Containers:	3
Sample Custody Seals:	Yes No (N/A)		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
	SS02A	S	10/14/19	1315	4'	1	x	x	x
	SS03A	S	10/14/19	1320	4'	1	x	x	x
	SS05A	S	10/14/19	1325	4'	1	x	x	x

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

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
Anna Byers		10/16/19 @ 952	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number **50260**

Date/Time: 10/16/19 13:45
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776737745954

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
640162-001	S	SS02A	10/14/19 13:15	SW8021B	BTEX by EPA 8021B	10/22/19	10/28/19	JKR	BR4FBZ BZ BZME EBZ X	
640162-001	S	SS02A	10/14/19 13:15	SW8015MOD_NM	TPH by SW8015 Mod	10/22/19	10/28/19	JKR	GRO-DRO PHCC10C28 PI	
640162-001	S	SS02A	10/14/19 13:15	E300_CL	Chloride by EPA 300	10/22/19	04/11/20	JKR	CL	
640162-002	S	SS03A	10/14/19 13:20	SW8015MOD_NM	TPH by SW8015 Mod	10/22/19	10/28/19	JKR	GRO-DRO PHCC10C28 PI	
640162-002	S	SS03A	10/14/19 13:20	SW8021B	BTEX by EPA 8021B	10/22/19	10/28/19	JKR	BR4FBZ BZ BZME EBZ X	
640162-002	S	SS03A	10/14/19 13:20	E300_CL	Chloride by EPA 300	10/22/19	04/11/20	JKR	CL	
640162-003	S	SS05A	10/14/19 13:25	SW8015MOD_NM	TPH by SW8015 Mod	10/22/19	10/28/19	JKR	GRO-DRO PHCC10C28 PI	
640162-003	S	SS05A	10/14/19 13:25	SW8021B	BTEX by EPA 8021B	10/22/19	10/28/19	JKR	BR4FBZ BZ BZME EBZ X	
640162-003	S	SS05A	10/14/19 13:25	E300_CL	Chloride by EPA 300	10/22/19	04/11/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 10/16/2019

Received By: Amanda Levario

Date Received: 10/17/2019 11:19

Cooler Temperature: 3.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 50260

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

Sent By: Elizabeth McClellan **Date Sent:** 10/16/2019 01:45 PM

Received By: Amanda Levario **Date Received:** 10/17/2019 11:19 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#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: _____ Date: 10/17/2019

Amanda Levario

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/16/2019 09:52:00 AM

Work Order #: 640162

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)?	1.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to 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: 10/16/2019

Checklist reviewed by: Jessica Kramer Date: 10/17/2019

Analytical Report 640502

for

LT Environmental, Inc.

Project Manager: Aimee Cole

Sizzler State #001 H

012917049

24-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

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

24-OCT-19

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

Reference: XENCO Report No(s): **640502**
Sizzler State #001 H
Project Address: Rural Eddy County

Aimee Cole:

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) 640502. 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. 640502 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01A	S	10-18-19 13:50	2 ft	640502-001
SS01B	S	10-18-19 14:00	4 ft	640502-002
SS04A	S	10-18-19 14:30	2 ft	640502-003
SS04B	S	10-18-19 14:40	4 ft	640502-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sizzler State #001 H

Project ID: *012917049*
Work Order Number(s): *640502*

Report Date: *24-OCT-19*
Date Received: *10/21/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3104977 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3105170 Chloride by EPA 300
Lab Sample ID 640502-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640502-001, -002, -003, -004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 640502

LT Environmental, Inc., Arvada, CO

Project Name: Sizzler State #001 H

Project Id: 012917049
Contact: Aimee Cole
Project Location: Rural Eddy County

Date Received in Lab: Mon Oct-21-19 09:10 am
Report Date: 24-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640502-001		640502-002		640502-003		640502-004					
	Field Id:	SS01A		SS01B		SS04A		SS04B					
	Depth:	2- ft		4- ft		2- ft		4- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Oct-18-19 13:50		Oct-18-19 14:00		Oct-18-19 14:30		Oct-18-19 14:40					
BTEX by EPA 8021B	***Extracted:***	Oct-21-19 14:10		Oct-21-19 14:10		Oct-21-19 14:10		Oct-21-19 14:10					
	Analyzed:	Oct-22-19 07:45		Oct-22-19 08:05		Oct-22-19 08:26		Oct-22-19 08:46					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994				
Toluene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994				
Ethylbenzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994				
m,p-Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199				
o-Xylene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994				
Total Xylenes		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994				
Total BTEX		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994				
Chloride by EPA 300	***Extracted:***	Oct-21-19 20:10		Oct-21-19 20:10		Oct-21-19 20:10		Oct-21-19 20:10					
	Analyzed:	Oct-22-19 15:38		Oct-22-19 15:45		Oct-22-19 15:51		Oct-22-19 15:57					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		599	50.3	2000	101	540	49.9	1640	99.2				
TPH by SW8015 Mod	***Extracted:***	Oct-21-19 16:00		Oct-21-19 16:00		Oct-21-19 16:00		Oct-21-19 16:00					
	Analyzed:	Oct-21-19 19:29		Oct-21-19 19:49		Oct-21-19 19:49		Oct-21-19 20:09					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.3	50.3				
Diesel Range Organics (DRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.3	50.3				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.3	50.3				
Total GRO-DRO		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.3	50.3				
Total TPH		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.3	50.3				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS01A**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-001	Date Collected:	10.18.19 13.50	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 20.10	Basis:	Wet Weight
Seq Number:	3105170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**599**	50.3	mg/kg	10.22.19 15.38		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.21.19 16.00	Basis:	Wet Weight
Seq Number:	3104978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.21.19 19.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.21.19 19.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.21.19 19.29	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.21.19 19.29	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.21.19 19.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	10.21.19 19.29	
o-Terphenyl	84-15-1	80	%	70-135	10.21.19 19.29	

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS01A**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-001	Date Collected:	10.18.19 13.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 14.10	Basis:	Wet Weight
Seq Number:	3104977				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.22.19 07.45	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.22.19 07.45	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.22.19 07.45	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.22.19 07.45	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.22.19 07.45	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.22.19 07.45	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.22.19 07.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.22.19 07.45	
4-Bromofluorobenzene	460-00-4	109	%	70-130	10.22.19 07.45	

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS01B**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-002	Date Collected:	10.18.19 14.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 20.10	Basis:	Wet Weight
Seq Number:	3105170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2000**	101	mg/kg	10.22.19 15.45		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.21.19 16.00	Basis:	Wet Weight
Seq Number:	3104978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.21.19 19.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.21.19 19.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.21.19 19.49	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.21.19 19.49	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.21.19 19.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	10.21.19 19.49	
o-Terphenyl	84-15-1	87	%	70-135	10.21.19 19.49	

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS01B**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-002	Date Collected:	10.18.19 14.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 14.10	Basis:	Wet Weight
Seq Number:	3104977				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.22.19 08.05	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.22.19 08.05	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.22.19 08.05	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.22.19 08.05	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.22.19 08.05	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.22.19 08.05	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.22.19 08.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.22.19 08.05	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.22.19 08.05	

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS04A**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-003	Date Collected:	10.18.19 14.30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 20.10	Basis:	Wet Weight
Seq Number:	3105170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**540**	49.9	mg/kg	10.22.19 15.51		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.21.19 16.00	Basis:	Wet Weight
Seq Number:	3104978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.21.19 19.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.21.19 19.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.21.19 19.49	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.21.19 19.49	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.21.19 19.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	10.21.19 19.49	
o-Terphenyl	84-15-1	80	%	70-135	10.21.19 19.49	

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS04A**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-003	Date Collected:	10.18.19 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 14.10	Basis:	Wet Weight
Seq Number:	3104977				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.22.19 08.26	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.22.19 08.26	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.22.19 08.26	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.22.19 08.26	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.22.19 08.26	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.22.19 08.26	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.22.19 08.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.22.19 08.26	
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.22.19 08.26	

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS04B**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-004	Date Collected:	10.18.19 14.40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 20.10	Basis:	Wet Weight
Seq Number:	3105170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1640**	99.2	mg/kg	10.22.19 15.57		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.21.19 16.00	Basis:	Wet Weight
Seq Number:	3104978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.21.19 20.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.21.19 20.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.21.19 20.09	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.21.19 20.09	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.21.19 20.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-135	10.21.19 20.09	
o-Terphenyl	84-15-1	76	%	70-135	10.21.19 20.09	

Certificate of Analytical Results 640502

LT Environmental, Inc., Arvada, CO

Sizzler State #001 H

Sample Id:	**SS04B**	Matrix:	Soil	Date Received:	10.21.19 09.10
Lab Sample Id:	640502-004	Date Collected:	10.18.19 14.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.21.19 14.10	Basis:	Wet Weight
Seq Number:	3104977				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	10.22.19 08.46	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	10.22.19 08.46	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	10.22.19 08.46	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.22.19 08.46	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	10.22.19 08.46	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	10.22.19 08.46	U	1
Total BTEX		<0.000994	0.000994	mg/kg	10.22.19 08.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.22.19 08.46	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.22.19 08.46	

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 640502

LT Environmental, Inc.

Sizzler State #001 H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105170 Matrix: Solid Date Prep: 10.21.19
MB Sample Id: 7688575-1-BLK LCS Sample Id: 7688575-1-BKS LCSD Sample Id: 7688575-1-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	268	107	269	108	90-110	0	20	mg/kg	10.22.19 14:04	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105170 Matrix: Solid Date Prep: 10.21.19
Parent Sample Id: 640497-001 MS Sample Id: 640497-001 S MSD Sample Id: 640497-001 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	200	290	117	292	118	90-110	1	20	mg/kg	10.22.19 14:22	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105170 Matrix: Solid Date Prep: 10.21.19
Parent Sample Id: 640502-004 MS Sample Id: 640502-004 S MSD Sample Id: 640502-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1640	1980	4150	127	4210	129	90-110	1	20	mg/kg	10.22.19 16:03	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3104978 Matrix: Solid Date Prep: 10.21.19
MB Sample Id: 7688582-1-BLK LCS Sample Id: 7688582-1-BKS LCSD Sample Id: 7688582-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	888	89	913	91	70-135	3	35	mg/kg	10.21.19 18:30	
Diesel Range Organics (DRO)	<50.0	1000	816	82	825	83	70-135	1	35	mg/kg	10.21.19 18:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		118		109		70-135	%	10.21.19 18:30
o-Terphenyl	94		112		106		70-135	%	10.21.19 18:30

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3104978 Matrix: Solid Date Prep: 10.21.19
MB Sample Id: 7688582-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.21.19 18:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 640502

LT Environmental, Inc.

Sizzler State #001 H

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3104978 — Matrix: Soil — Date Prep: 10.21.19
Parent Sample Id: 640498-002 — MS Sample Id: 640498-002 S — MSD Sample Id: 640498-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.6	1010	852	84	866	86	70-135	2	35	mg/kg	10.21.19 19:09	
Diesel Range Organics (DRO)	<50.6	1010	774	77	799	79	70-135	3	35	mg/kg	10.21.19 19:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		100		70-135	%	10.21.19 19:09
o-Terphenyl	81		86		70-135	%	10.21.19 19:09

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104977 — Matrix: Solid — Date Prep: 10.21.19
MB Sample Id: 7688601-1-BLK — LCS Sample Id: 7688601-1-BKS — LCSD Sample Id: 7688601-1-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	0.0975	98	0.0993	99	70-130	2	35	mg/kg	10.21.19 23:48	
Toluene	<0.00100	0.100	0.0935	94	0.0949	95	70-130	1	35	mg/kg	10.21.19 23:48	
Ethylbenzene	<0.00100	0.100	0.0955	96	0.0960	96	71-129	1	35	mg/kg	10.21.19 23:48	
m,p-Xylenes	<0.00200	0.200	0.190	95	0.191	96	70-135	1	35	mg/kg	10.21.19 23:48	
o-Xylene	<0.00100	0.100	0.0959	96	0.0981	98	71-133	2	35	mg/kg	10.21.19 23:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		105		70-130	%	10.21.19 23:48
4-Bromofluorobenzene	106		106		110		70-130	%	10.21.19 23:48

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104977 — Matrix: Soil — Date Prep: 10.21.19
Parent Sample Id: 640495-008 — MS Sample Id: 640495-008 S — MSD Sample Id: 640495-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0799	80	0.0751	75	70-130	6	35	mg/kg	10.22.19 00:29	
Toluene	<0.00100	0.100	0.0754	75	0.0705	71	70-130	7	35	mg/kg	10.22.19 00:29	
Ethylbenzene	<0.00100	0.100	0.0783	78	0.0744	74	71-129	5	35	mg/kg	10.22.19 00:29	
m,p-Xylenes	<0.00200	0.200	0.155	78	0.147	74	70-135	5	35	mg/kg	10.22.19 00:29	
o-Xylene	<0.00100	0.100	0.0786	79	0.0742	74	71-133	6	35	mg/kg	10.22.19 00:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	10.22.19 00:29
4-Bromofluorobenzene	110		106		70-130	%	10.22.19 00:29

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: 640902

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 Crasbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Project Manager:	Aimee Cole	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E. Greene Street
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad NM, 88220
Phone:	720 384 7365	Email:	acole@ltenv.com & abyers@ltenv.com

Work Order Comments

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

Project Name:	Sizzler State #001H	Turn Around	
Project Number:	012917049	Routine	☒
Project Location	Rural Eddy County	Rush:	
Sampler's Name:	Anna Byers	Due Date:	
PO #:	2RP-4469	Quote #:	

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.4	Thermometer ID	T-NM-007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes No (N/A)	Total Containers:	4
Sample Custody Seals:	Yes No (N/A)		

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
	SS01A	S	10/18/19	1350	2'	1	X	X	X	
	SS01B	S		1400	4'	1	X	X	X	
	SS04A	S		1430	2'	1	X	X	X	
	SS04B	S	↓	1440	4'	1	X	X	X	

ANALYSIS REQUEST

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	Anna Byers		10/21/19 09:10	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/21/2019 09:10:00 AM

Work Order #: 640502

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)?	2.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/21/2019

Checklist reviewed by: Jessica Kramer Date: 10/22/2019