LT Environmental, Inc.

3300 North "A" Street Building 1, Unit 103 Midland, Texas 79705 432.704.5178

Advancing Opportunity

October 4, 2019

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

RE: Closure Request Big Eddy Unit #74 Tank Battery Remediation Permit Numbers 2RP-2664 and 2RP-3213 Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request report detailing soil sampling and excavation activities at the Big Eddy Unit #74 Tank Battery (Site) in Unit B, Section 25, Township 21 South, Range 28 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil following two separate events that caused the release of produced water and crude oil at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting no further action for the release events.

The releases are 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 releases are categorized as Tier IV sites in the Compliance Agreement, meaning the releases occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On December 4, 2014, a valve on the production tank coming from the water dump line was closed and the float valve on the scrubber failed causing approximately 1 barrel (bbl) of crude oil and 4 bbls of produced water to release from the flare stack. The release misted approximately 500 square feet of pasture and pooled in an area of approximately 648 square feet within the earthen containment surrounding the flare stack. Micro-Blaze[®] was applied to the affected pasture area. Approximately 1 bbl of released fluid was recovered. The closed valve was opened, and the float valve was repaired. The former operator reported the release to the NMOCD on a





Billings, B. Page 2

Release Notification and Corrective Action Form C-141 (Form C-141) on December 15, 2014, and was assigned Remediation Permit (RP) Number 2RP-2664 (Attachment 1).

On August 13, 2015, a second release occurred at the Site (south of previous release 2RP-2664). A heater began leaking from a corroded bottom and released approximately 12 bbls of crude oil. Approximately 545 square feet of caliche well pad were affected by the release. A vacuum truck recovered approximately 10 bbls of crude oil. The heater was drained, cleaned, and removed from service so that it could be replaced by an operational heater. The former operator reported the release to NMOCD on a Form C-141 on August 17, 2015, and was assigned RP Number 2RP-3213 (Attachment 1).

Although the releases occurred while the facility was operated by the previous operator, XTO is the current operator and is committed to addressing any releases that remain unresolved. Since both releases occurred on the same well pad, excavation and sampling activities were completed to address and close both releases simultaneously. Based on the excavation activities and results of the confirmation soil sampling events, XTO is requesting no further action for these two release events.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of 19.15.29.12 of the NMAC. Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is United States Geological Survey (USGS) Well 322632104023001 21A.28E.36.12321, located approximately 4,527 feet south-southwest of the Site. The water well has a depth to groundwater of 141 feet bgs and a total depth of 161 feet bgs. Ground surface elevation at the water well location is approximately 3,200 feet above mean sea level (AMSL), which is approximately 35 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 540 feet southeast 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 not located in a medium or high-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;





Billings, B. Page 3

- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg;
- Total petroleum hydrocarbons (TPH): 2,500 mg/kg; and
- Chloride: 20,000 mg/kg.

SITE ASSESSMENT, EXCAVATION, AND DELINEATION SOIL SAMPLING ACTIVITIES

On June 14, 2019, LTE personnel inspected the Site to evaluate the release extents based on information provided on the Form C141s and visual observations. Surficial staining was observed in the release areas on the well pad. The release extents were mapped utilizing a handheld Global Positing System (GPS) unit and are depicted on Figure 2.

On June 17, 2019, LTE personnel returned to the Site to oversee excavation of soil as indicated by visual observations and field screening results. The excavation associated with the flare stack release was completed in the northeast corner of the pad. The excavation associated with the heater release was completed adjacent to the heater-treaters. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach[®] chloride QuanTab[®] test strips, respectively. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavations. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing.

Composite soil samples SW01 and SW02 were collected from the sidewalls of the flare release excavation at depths ranging from ground surface to 1.5 feet bgs. Composite soil samples FS01 and FS02 were collected from the floor of the flare release excavation at a depth of 1.5 feet bgs.

Composite soil samples SW03 and SW04 were collected from the sidewalls of the heater release excavation at depths ranging from ground surface to 1 foot bgs. Composite soil samples FS03 through FS05 were collected from the floor of the heater release excavation at a depth of 1 foot bgs. The excavation extents and soil sample locations are depicted on Figure 2.

On June 17 and June 18, 2019, LTE personnel advanced boreholes via hand auger at six locations within and around the release extents. Boreholes BH01 and BH02 were advanced in the pasture area north of the well pad to a depth of 1 foot bgs or 1.5 feet bgs to assess for additional potential soil impacts associated with the flare release. Boreholes BH03 through BH05 were advanced around the heater treaters to a depth of 3 feet or 4 feet bgs to assess for additional potential soil impacts associated with the heater release. Two delineation soil samples were collected from each borehole at depths ranging from 0.5 feet to 4 feet bgs. Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The borehole and delineation soil sample locations are depicted on Figure 3.





Billings, B. Page 4

The excavation and delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 3.

The combined excavation extents measured approximately 1,700 square feet in area. A total of approximately 100 cubic yards of impacted soil were removed from the excavations. The impacted soil was transported and properly disposed of at the Lea Land landfill facility located in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in the excavation soil samples collected from the final excavation extents and in all delineation soil samples collected from boreholes BH01 through BH06. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Impacted soil was excavated from the release areas. Laboratory analytical results for the excavation soil samples collected from the final excavation extents indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Delineation soil sampling was completed in and around the release extents to confirm that all impacted soil was removed. Laboratory analytical results for the delineation soil samples indicated that benzene, BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the laboratory analytical results, and no further remediation was required.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for RP Numbers 2RP-2664 and 2RP-3213. XTO will backfill the excavations with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 for each release is included in Attachment 1.

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





Page 5 of 130

Billings, B. Page 5

Sincerely,

LT ENVIRONMENTAL, INC.

Dyn Iml

Bryan Paraspolo Project Environmental Scientist

Ashley L. Ager

Ashley L. Ager, P.G. Senior Geologist

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

Attachments:

- Figure 1 Site Location Map
- Figure 2 Excavation Soil Sample Locations
- Figure 3 Delineation Soil Sample Locations
- Table 1Soil Analytical Results
- Attachment 1 Initial/Final NMOCD Form C-141 (2RP-2664 and 2RP-3213)
- Attachment 2 Lithologic / Soil Sample Logs
- Attachment 3 Photographic Log
- Attachment 4 Laboratory Analytical Reports



FIGURES





Released to Imaging: 2/20/2023 1:29:37 PM

P:\XTO Energy\GIS\MXD\012919116_BEU #74 TANK BATTERY\012919116_FIG01_SL_3213.mxd





TABLES



TABLE 1 SOIL ANALYTICAL RESULTS

BIG EDDY UNIT #74 TANK BATTERY REMEDIATION PERMIT NUMBERS 2RP-2664 AND 2RP-3213 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)
SW01	0-1.5	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	170
SW02	0-1.5	06/17/2019	<0.00199	<0.00199	< 0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	348
SW03	0-1	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	132	18.1	150	150.1	15.5
SW04	0-1	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98
FS01	1.5	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	237
FS02	1.5	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	319
FS03	1	06/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<5.02
FS04	1	06/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98
FS05	1	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
BH01	1	06/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
BH01A	1.5	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	6.77
BH02	0.5	06/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
BH02A	1	06/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	<5.00
BH03	1	06/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	493	78.1	571	571.1	186
BH03A	4	06/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	19.5	<15.0	19.5	19.5	98.2
BH04	2	06/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	47.8
BH04A	3	06/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	201
BH05	1	06/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	5.95
BH05A	3	06/18/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	9.93
BH06	2	06/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	104
BH06A	3	06/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	117
NMOCD	Table 1 Closur	e Criteria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000

Notes:

Released to Imaging: 2/20/2023 1:29:37 PM

- bgs below ground surface
- BTEX benzene, toluene, ethylbenzene, and total xylenes
- DRO diesel range organics
- GRO gasoline range organics
- mg/kg milligrams per kilogram

- NMAC New Mexico Administrative Code NMOCD - New Mexico Oil Conservation Division NE - not established ORO - oil range organics 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-5332 and 2RP-5431)

District I 1625 N. French Dr., Hobbs, NM 88240 District III 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

NM OIL CONSERVATION Page 13 of 130

ARTESIA DISTRICT Form C-141

DEC 1 5 2014 Revised August 8, 2011

Submit 1 Copy to appropriate District Office in RECEIVED

Release Notification and Corrective Action

NAB1435042878		OPERATOR	Initial Report	Final Report
Name of Company: BOPCO, L.P.	260737	Contact: Tony Savoie		
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220		Telephone No. 575-887-73	29	
Facility Name: Big Eddy Unit #74 Tank	Battery	Facility Type: Exploration	and Production	
Surface Owner: Federal	Mineral Owned	er: Federal	API No. 30-015-2	2839

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
В	25	21S	28E					Eddy

Latitude N 32.456855 Longitude W 103.037608

NATURE OF RELEASE

Type of Release: Crude Oil and produced water	Volume of Release: 1 Bbl crude oil and 4 bbls produced water	Volume Recovered: 1 bbl total fluid
Source of Release: Facility flare stack	Date and Hour of Occurrence: 12/4/14 time unknown	Date and Hour of Discovery: 12/4/14 at approximately 1:00 p.m.
Was Immediate Notice Given?	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken. A valve was found closed on the production tank coming from the water of flare stack. The closed valve was opened and the float valve was repaired.		e scrubber causing fluid to escape from the
Describe Area Affected and Cleanup Action Taken.* The spill misted approximately 500 sq.ft. of pasture area and puddled up i stack. The pasture area was washed down with micro-blaze. All of the fre The spill area will be cleaned up in accordance to the NMOCD and BLM	e standing fluid was recovered with a	
I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release n public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediate or the environment. In addition, NMOCD acceptance of a C-141 report d federal, state, or local laws and/or regulations.	otifications and perform corrective ac e NMOCD marked as "Final Report" e contamination that pose a threat to g	tions for releases which may endanger does not relieve the operator of liability ground water, surface water, human health
Signature: 1 Ora Dame	OIL CONSER	VATION DIVISION
	Approved by En Aisnad Bat Special	he Brennessen
Title: Waste Management and Remediation Specialist	Approval Date: 211414	Expiration Date: N/H
E-mail Address: tasavoie@basspet.com	Conditions of Approval:	Attached
Date: 12/15/14 Phone: 432-556-8730	emediation per O.C.D. Rules	& Guidelines
Attach Additional Sheets If Necessary	ATER THAN:	- 2RP-2664

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-2664
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-2664			
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220				

Location of Release Source

Latitude <u>N 32.456855</u>

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Big Eddy Unit #74 Tank Battery	Site Type: Production Well Facility
Date Release Discovered: 12/4/2014	API# (if applicable): 30-015-22839

Unit Letter	Section	Township	Range	County
В	25	21S	28E	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): 1 Volume Recovered (bbls): 0.5 Produced Water Volume Released (bbls): 4 Volume Recovered (bbls): 0.5 Is the concentration of dissolved chloride in the Yes No produced water >10,000 mg/l? Condensate Volume Released (bbls) Volume Recovered (bbls) Natural Gas Volume Released (Mcf) Volume Recovered (Mcf) Other (describe) Volume/Weight Released (provide units) Volume/Weight Recovered (provide units)

Cause of Release

A valve on the production tank coming from the water dump line was closed and the float valve on the scrubber failed causing approximately 1 barrel (bbl) of crude oil and 4 bbls of produced water to be released from the flare stack.

Dage	2
Page	4

Oil Conservation Division

Incident ID	
District RP	2RP-2664
Facility ID	
Application ID	

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

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

 \square 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 \underline{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: <u>SH&E Superviso</u> r
Signature:	Date: <u>10/4/2019</u>
email: <u>Kyle Littrell@xtoenergy.com</u> Tele	ephone: 432-221-7331
OCD Only	
Received by:	Date:

Received by OCD: 2/20/2023 1:26:39 PM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

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?	<u>>100</u> (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
- \boxtimes Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-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.

Received by OCD: 2/20/202	23 1:26:39 PM State of New Mexico			Page 17 of 130
			Incident ID	
Page 4	Oil Conservation Divisio	Oil Conservation Division		2RP-2664
			Facility ID	
			Application ID	
regulations all operators are r public health or the environm failed to adequately investiga addition, OCD acceptance of and/or regulations. Printed Name: Signature:	mation given above is true and complete to required to report and/or file certain release hent. The acceptance of a C-141 report by to the and remediate contamination that pose a T a C-141 report does not relieve the operator Kyle Littrell Macob ell@xtoenergy.com	notifications and perform of the OCD does not relieve th threat to groundwater, sur- or of responsibility for com Title:SH&E Date:10/4/2019	corrective actions for rele ne operator of liability sh face water, human health pliance with any other fe	eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only				
Received by:		Date:		

Oil Conservation Division

Incident ID	
District RP	2RP-2664
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.

<u>Closure Report Attachment Checklist</u> : Each of the following in	items must be included in the closure report.		
\square 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 OD	C District office must be notified 2 days prior to final sampling)		
Description of remediation activities			
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re- human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially anditions that existed prior to the release or their final land use in		
Printed Name:Kyle Littrell	Title:SH&E Supervisor		
Signature:	Date:10/4/2019		
email:Kyle_Littrell@xtoenergy.com	Telephone:432-221-7331		
OCD Only			
Received by:	Date:		
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.		
Closure Approved by:	Date:		
Printed Name:	Title:		

.

<u>strict II</u>	Dr., Hobbs, N			Sta Energy Mir		New Mexi and Natural			Form C-141 Revised August 8, 2011
1 S. First St., strict III	Artesia, NM	88210				vation Div		Submit I Copy	to appropriate District Office in
00 Rio Brazo	s Road, Azteo	c, NM 87410				St. Franci		ac	cordance with 19.15.29 NMAC.
<u>strict IV</u> 20 S. St. Fran	icis Dr., Santa	a Fc, NM 87505	5			, NM 875			
			Dala	ase Notific				ation	
NAR	1500	77101		ase notific					
Name of Cu	JCJ	23104 OPCO, L.P.	6	10171217		OPERAT Contact: Am	····	🛛 Initia	Il Report 📃 Final Repo
				ad, N.M. 88220			lo. 575-887-732	9	
		ddy Unit #74				Facility Typ	e: Exploration a	nd Production	
urface Ow	ner: Feder	ral		Mineral C)wner:	Federal		API No	. 30-015-22839
				LOCA	TION	OF REI	LEASE		
Unit Letter 3	Section 25	Township 21S	Range 28E	Feet from the 660	North/S North	South Line	Feet from the 1980	East/West Line East	County Eddy
	. .	<u> </u>	La	titude32.456	589°	Longitude	104.037531	D	<u> </u>
			_	NAT	URE	OF RELI			
ype of Rele		de Oil					Release 12 bbls		Recovered 10 bbls Hour of Discovery
Source of Re	lease He	eater					our of Occurrenc time unknown	e Date and 8/13/2015	5 Il am
Vas Immedi	iate Notice C					If YES, To			NAA
] No 🖾 Not R	cquired	N/A			UIL CONCO
By Whom?	N/A course Read	1 10				Date and H		1	ARTESIADIS
was a water	course Read		Yes 🛛	No		$ \mathbf{N} \mathbf{N} $	lume Impacting t	ne watercourse.	NM OIL CONSERV. ARTESIA DISTRICT AUG 1 7 2015
f a Waterco	urse was Im	pacted, Descr	ibe Fully.	*		1		······································	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
N/A									RECEIVED
		em and Reme om corroded b			ned, clea	incd, and LO	ΓΟ will not be i	n use until it is ren	noved from location
router organ									
router began		and Cleanup						•	
Describe Are			square feel	of caliche pad.	A vacuun	n trúck recov	ered standing flui	ds.	
Describe Are		cimately 545 :	• ·						
Describe Are		kimately 545 :							
Describe Ard	ected approx			is true and comr	lete to th	ne best of my	knowledge and u	nderstand that pure	suant to NMOCD rules and
Describe Are The leak affe hereby cert regulations a	ected approx	information g	iven abov	nd/or file certain i	release no	otifications a	nd perform correct	tive actions for rel	suant to NMOCD rules and eases which may endanger
Describe Ard The leak affo hereby cert regulations a public health	ected approx lify that the i all operators or the envi	information g are required t ronment. The	iven abov o report a e acceptan	nd/or file certain i ce of a C-141 repo	release no ort by the	otifications a e NMOCD m	nd perform correc arked as "Final R	tive actions for rel cport" does not rel	eases which may endanger ieve the operator of liability
Describe Ard The leak affor hereby cert regulations a public health should their or the enviro	tify that the i all operators or the envir operations h	information g are required to ronment. The nave failed to iddition, NMC	iven above to report a acceptan adcquately OCD accept	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate	otifications and NMOCD me contaminati	nd perform correc arked as "Final R on that pose a thr	tive actions for rel cport" does not rel cat to ground wate	eases which may endanger
Describe Ard The leak affor hereby cert regulations a public health should their or the enviro	tify that the i all operators or the envir operations h	information g are required to ronment. The tayse failed to	iven above to report a acceptan adcquately OCD accept	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate	otifications and NMOCD me contaminati	nd perform correc arked as "Final R on that pose a thr re the operator of	tive actions for rel cport" does not rel cat to ground wate responsibility for c	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Describe Ard The leak affor hereby cert regulations a public health should their or the enviro	tify that the i all operators or the envir operations h	information g are required to ronment. The nave failed to iddition, NMC	iven above to report a acceptan adcquately OCD accept	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate	otifications and NMOCD me contaminati	nd perform correc arked as "Final R on that pose a thr re the operator of	tive actions for rel cport" does not rel cat to ground wate	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Describe Ard The leak affor hereby cert egulations a public health should their or the enviro ederal, state	tify that the i all operators or the envir operations h	information g are required to ronment. The nave failed to iddition, NMC	iven above to report a acceptan adcquately OCD accept	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate	otifications and NMOCD me contaminati	nd perform correc arked as "Final R on that pose a thr re the operator of	tive actions for rel cport" does not rel cat to ground wate responsibility for c	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Describe Ard The leak affo regulations a public health should their for the enviro federal, state	ected approx lify that the i all operators n or the envi- operations h poment. In a e, or local law	information g are required to ronment. The nave failed to iddition, NMC ws-and/or regu	iven above to report a acceptan adcquately OCD accept	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate report de	otifications a e NMOCD m e contaminati oes not reliev	nd perform correc arked as "Final R on that pose a thr re the operator of	etive actions for rel eport" does not rel eat to ground wate responsibility for c SERVATION	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Describe Ard The leak affor regulations a public health should their or the enviro rederal, state Signature:	ected approx lify that the i all operators or the envir operations h porment. In a e, or local law	information g are required to ronment. The nave failed to iddition, NMC ws-and/or regu	iven above to report a acceptan adequately DCD acceptulations.	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate report de	otifications a e NMOCD m e contaminati oes not reliev	nd perform correct arked as "Final R on that pose a thr the operator of <u>OIL CON</u> Environmental S	etive actions for rel eport" does not rel eat to ground wate responsibility for c SERVATION	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other DIVISION
Describe Ard The leak affo hereby cert regulations a bublic health should their for the enviro rederal, state Signature: Printed Nam	ected approx ify that the i all operators n or the envi- operations h poment. In a e, or local law e. Amy Rut ant-Remedia	information g are required to ronment. The ave failed to addition, NMC ws-and/or regu th h	iven above to report a acceptan adequately DCD accep ulations.	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate report de	otifications a e NMOCD m e contaminati oes not reliev Approved by Approval Da	nd perform correct arked as "Final R on that pose a thr the operator of <u>OIL CON</u> Environmental S te: <u>8 20 14</u>	etive actions for rel eport" does not rel eat to ground wate responsibility for c SERVATION pecialist: H Expiration	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other DIVISION Date: NIA
Describe Ard The leak affo hereby cert regulations a bublic health should their for the enviro rederal, state Signature: Printed Nam	ected approx ify that the i all operators n or the envi- operations h poment. In a e, or local law e. Amy Rut ant-Remedia	information g are required to ronment. The nave failed to iddition, NMC ws-and/or regr up	iven above to report a acceptan adequately DCD accep ulations.	nd/or file certain i ce of a C-141 rep investigate and i	release no ort by the remediate report de	otifications a e NMOCD m e contaminati oes not reliev Approved by Approval Da Conditions o	nd perform correct arked as "Final R on that pose a thr the operator of <u>OIL CON</u> Environmental S te: <u>8 20 14</u> f Approval:	etive actions for rel eport" does not rel eat to ground wate responsibility for c SERVATION pecialist:	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other DIVISION Date: N/A

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-3213
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-3213
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude <u>N 32.456689</u>

Longitude W -103.037531 (NAD 83 in decimal degrees to 5 decimal places)

Site Name: Big Eddy Unit #74 Tank Battery	Site Type: Production Well Facility
Date Release Discovered: 8/13/2015	API# (if applicable): 30-015-22839

Unit Letter	Section	Township	Range	County
В	25	21S	28E	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): 12 Volume Recovered (bbls): 10 Volume Recovered (bbls): Produced Water Volume Released (bbls): Is the concentration of dissolved chloride in the Yes No produced water >10,000 mg/l? Condensate Volume Released (bbls) Volume Recovered (bbls) Natural Gas Volume Released (Mcf) Volume Recovered (Mcf) Other (describe) Volume/Weight Released (provide units) Volume/Weight Recovered (provide units)

Cause of Release

A heater began leaking from a corroded bottom. The leak affected approximately 545 square feet of caliche well pad.

Page	2
1 uge	-

Oil Conservation Division

Incident ID	
District RP	2RP-3213
Facility ID	
Application ID	

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

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

 \square 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 \underline{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: <u>SH&E Supervisor</u>
Signature:	Date: <u>10/4/2019</u>
email: <u>Kyle Littrell@xtoenergy.com</u> Tel	ephone:432-221-7331
OCD Only	
Received by:	Date:

Received by OCD: 2/20/2023 1:26:39 PM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

		Page 22 of 130
Incident ID		
District RP	2RP-3213	
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?	<u>>100</u> (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
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-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.

Received by OCD: 2/20/2023	1:26:39 PM State of New Mexico			Page 23 of 130
			Incident ID	
Page 4	Oil Conservation Division		District RP	2RP-3213
			Facility ID	
			Application ID	
regulations all operators are republic health or the environme failed to adequately investigate addition, OCD acceptance of a and/or regulations. Printed Name: Signature:	hation given above is true and complete to the quired to report and/or file certain release no nt. The acceptance of a C-141 report by the e and remediate contamination that pose a the C-141 report does not relieve the operator of Kyle Littrell	tifications and perform c OCD does not relieve th reat to groundwater, surfa f responsibility for comp 	orrective actions for rele e operator of liability sh ace water, human health liance with any other fe Supervisor	eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only				
Received by:		Date:		

Oil Conservation Division

Incident ID	
District RP	2RP-3213
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.

<u>Closure Report Attachment Checklist</u>: Each of the following	items must be included in the closure report.
\square A scaled site and sampling diagram as described in 19.15.29.	11 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially anditions that existed prior to the release or their final land use in
Printed Name:Kyle Littrell	Title:SH&E Supervisor
Signature:	Date: <u>10/4/2019</u>
email:Kyle_Littrell@xtoenergy.com	Telephone:432-221-7331
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by: Futtan Hall	Date: 02/20/2023
Printed Name: Brittany Hall	Title: Environmental Specialist

					ironment st Stevens New Mexi Engineering		Project Name:	101	Date: 06/17/19		
		LITHO	LOGIC	: / SOI	L SAMP)G		Logged By:	Robert M	Method: Hand Ay
Lat/Long					Field Scree	ening:			Hole Diameter	3"	Total Depth: 2'
Comment	15:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type			Lithology/Re	emarks
D	2123	0.8	N			- - - - - - - - - - - - - - - - - - -	5	sP	- 5M	Brown	L
D	(123	1.2	N		2	1.5	5	5P-	SM	Brown	
					3	-					
					4	-					
					-						
					5						
					6						
					7						
					8						
					9						
					+						
					10						
					11 +						
					12						

.

	ong:	LITHO	Compli	liance · E	ironmenta st Stevens New Mexic Engineering (L SAMP) Field Scree	g · Remedia	iation	Project Name: BEU Logged By:	Identifier: BHO2 Date: 06/17/19 Project Name: RP Number: BEU 74 Logged By: Roberd M. Method: Hand Ange Hole Diameter: 3" Total Depth: 2'			
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)		Soil/Rock Type		Lithology/F	Remarks		
40 D	<12 ⁸	1.3	2			q5 [°]	5	SP-SM	Bro	wn		
15 D	C128	1.1	4		2	1	5	SP-SM	Brown	r		
					3 4 5 6 7 8 9 10 11 11							

*

ZALE	LT Environmental, Inc. 508 West Stevens Street risbad, New Mexico 88220 pliance · Engineering · Remediation	Identifier: BH 03 Date: 06/18 (M) Project Name: RP Number: 2RP - 2664 BE V 74 2RP - 3215
	C / SOIL SAMPLING LOG	Logged By: Robert M. Method: Hand Awyer
_at/Long:	Field Screening:	Hole Diameter. 3' Total Depth: 11
Comments:		
Moisture Content Chloride (ppm) Vapor (ppm) Staining	Type Current Sample Sam	Lithology/Remarks
M 213 11.7 N		SP-SM brown
pr a24 13 N	2 2' 5 5	P-SM boot
N 4124 1.6 N	3 3' 5 5	P-SC w/ trace s. It reddish brow
N 4124 67 N	4 TY 5 ST	P-SC reddish brown
		Hand Auger Ve Fusal

		LT Envi 508 Wes Carlsbad, 1 ompliance · E			Identifier: Bh Project Name BÉV	104	Date: 6/18/19 RP Number:		
	LITHOLOG	GIC / SOI	Field Screen)G		Logged By:		Method: Hend Auger
Lat/Long:			Field Screet	ning:		Hole Diamete	ar. 3°	Total Depth: 3	
Comments:									
Moisture Content Chloride (ppm)	Vapor (ppm) Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type			Lithology/Re	emarks
D <124	4 1		0	· /'	5	SP -	SM	Brown	trace caliché
D 213	4 d.		2	2'	5	5P -	50	Reddish	
D 213	.5 N		3	3	5	sP	s C	<i>Reddish</i>	-Brann
						Ret	25a		

Released to Imaging: 2/20/2023 1:29:37 PM



UENKO			Ca	508 We risbad, i	ironment st Stevens New Mexi Engineering	Identifier: BHOG Date: 06/1e Project Name: BEV 074 RP Number:	8/19		
		LITHO	LOGIC	C / SOI	L SAMP		G		ind Auger
Lat/Long:					Field Scree	ening:		Hole Diameter 3" Total Depth:	3
Comment	ts:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks	
p	6124	0.5	Ν		0	- l'	ς	SP-SM Brown	
M	Lny	0.8	N		2	2'	5	sp-sc reddish Brown	
M	LNY	0.5	N		3	3'	5	sp - SC red Brown	
					4			hand auger refusal	
					7 - 8 - 9 - 10 -				





Photograph 1: View northeast corner of pad and release location (2RP-2664).



Photograph 3: View of release location (2RP-2664) facing north.



Photograph 2: View of the release location (2RP-2664) facing southeast.



Photograph 4: View of release location (2RP-2664) facing northwest.

Big Eddy Unit #74 Eddy County, New Mexico Photographs Taken: June 14, 17 & 18, 2019







Photograph 5: View of excavated location (2RP-2664) facing northeast.



Photograph 7: View of excavated location (2RP-2664) facing north.



Photograph 6: View of excavated location (2RP-2664) facing west.



Photograph 8: View of completed excavation (2RP-2664) facing west.



Big Eddy Unit #74 Tank Battery Eddy County, New Mexico Photographs Taken: June 14, 17 & 18, 2019 *Released to Imaging: 2/20/2023 1:29:37 PM*



Photograph 9: View eastern portion of pad and release location (2RP-3213).



Photograph 11: View of release location (2RP-3213) facing northeast.



Photograph 10: View of release location (2RP-3213) facing south.



Photograph 12: View of release location (2RP-3213) facing east.







Photograph 15: View of excavated location (2RP-3213).



Photograph 14: View of excavated location (2RP-3213) facing northeast.



Photograph 16: View of completed excavated location (2RP-3213) facing north.


Received by OCD: 2/20/2023 1:26:39 PM

Analytical Report 628186

for LT Environmental, Inc.

Project Manager: Ashley Ager

BEU 074

27-JUN-19

Collected By: Client





1211 W. Florida Ave Midland TX 79701

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

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

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





27-JUN-19

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

Reference: XENCO Report No(s): 628186 BEU 074 Project Address: Delaware Basin

Ashley Ager:

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) 628186. 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. 628186 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,

Jession 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 628186



LT Environmental, Inc., Arvada, CO

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	06-17-19 13:30	1.5 ft	628186-001
FS02	S	06-17-19 13:35	1.5 ft	628186-002
SW01	S	06-17-19 13:45	0 - 1.5 ft	628186-003
SW02	S	06-17-19 13:50	0 - 1.5 ft	628186-004



CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: BEU 074

Project ID: Work Order Number(s): 628186

ATORIES

Report Date: 27-JUN-19 Date Received: 06/19/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3093723 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





Project Id:Contact:Ashley AgerProject Location:Delaware Basin



LT Environmental, Inc., Arvada, CO Project Name: BEU 074



Date Received in Lab:Wed Jun-19-19 11:40 amReport Date:27-JUN-19Project Manager:Jessica Kramer

	Lab Id:	628186-0	001	628186-0	002	628186-0	003	628186-0	004		
	Field Id:	FS01		FS02		SW01		SW02	2		
Analysis Requested	Depth:	1.5- ft		1.5- ft	1.5- ft		t	0-1.5 ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Jun-17-19 1	13:30	Jun-17-19	13:35	Jun-17-19	13:45	Jun-17-19	13:50		
BTEX by EPA 8021B	Extracted:	Jun-25-19	14:00	Jun-25-19	14:00	Jun-25-19	14:00	Jun-25-19	14:00		
	Analyzed:	Jun-27-19 (02:51	Jun-27-19 (03:14	Jun-27-19 (03:37	Jun-27-19	10:27		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199		
Toluene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199		
Ethylbenzene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199		
m,p-Xylenes		< 0.00399	0.00399	< 0.00400	0.00400	< 0.00401	0.00401	< 0.00398	0.00398		
o-Xylene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199		
Total Xylenes		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199		
Total BTEX		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199		
Chloride by EPA 300	Extracted:	Jun-19-19	16:10	Jun-19-19 16:10		Jun-19-19 17:00		Jun-19-19 17:00			
	Analyzed:	Jun-20-19 (00:55	Jun-20-19 (01:03	Jun-20-19 16:48		Jun-20-19 16:53			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		237	4.99	319	5.03	170	4.97	348	4.99		
TPH by SW8015 Mod	Extracted:	Jun-19-19	17:00	Jun-19-19	17:00	Jun-19-19	17:00	Jun-20-19	11:50		
	Analyzed:	Jun-20-19 (09:02	Jun-20-19 (09:26	Jun-20-19 (09:51	Jun-21-19	10:46		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

fession kenner

Jessica Kramer Project Assistant

Page 5 of 19





LT Environmental, Inc., Arvada, CO

Sample Id: FS01	<u>r</u>				Date Received:06.	19.19 11.40	0
Lab Sample Id: 628186-001		Date Collec	cted: 06.17.19 13.30		Sample Depth: 1.5	ft	
Analytical Method: Chloride by	v EPA 300				Prep Method: E30)0P	
Tech: CHE					% Moisture:		
Analyst: CHE		Date Prep:	06.19.19 16.10		Basis: We	t Weight	
Seq Number: 3092962							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	237	4.99	mg/kg	06.20.19 00.55		1

Tech: ARM					6 Moisture:	1005P		
Analyst: ARM		Date Pre	p: 06.19.19	9 17.00	В	Basis: W	et Weight	
Seq Number: 3092947								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.20.19 09.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.20.19 09.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.20.19 09.02	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.20.19 09.02	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.20.19 09.02	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	06.20.19 09.02		
o-Terphenyl		84-15-1	92	%	70-135	06.20.19 09.02		





LT Environmental, Inc., Arvada, CO

Sample Id: FS01 Lab Sample Id: 628186-001	Matrix: Soil Date Collected: 06.17.19 13.30	Date Received:06.19.19 11.40 Sample Depth: 1.5 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093723	Date Prep: 06.25.19 14.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.27.19 02.51	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.27.19 02.51	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.27.19 02.51	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	06.27.19 02.51	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.27.19 02.51	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.27.19 02.51	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.27.19 02.51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	127	%	70-130	06.27.19 02.51		
1,4-Difluorobenzene		540-36-3	92	%	70-130	06.27.19 02.51		





LT Environmental, Inc., Arvada, CO

Sample Id: FS02 Lab Sample Id: 628186-002		Matrix: Date Collec	Soil cted: 06.17.19 13.35	Date Received:06.19.19 11.40 Sample Depth: 1.5 ft
Analytical Method: Chloride by EPA Tech: CHE Analyst: CHE Seq Number: 3092962	300	Date Prep:	06.19.19 16.10	Prep Method: E300P % Moisture: Basis: Wet Weight
Parameter	Cas Number	Result	RL	Units Analysis Date Flag Dil
Chloride	16887-00-6	319	5.03	mg/kg 06.20.19 01.03 1
Analytical Method: TPH by SW8015 Tech: ARM Analyst: ARM Seq Number: 3092947	Mod	Date Prep:	06.19.19 17.00	Prep Method: TX1005P % Moisture: Basis: Wet Weight
Parameter	Cas Number	Result	RL	Units Analysis Date Flag Dil

i ui uiiictei	eus rumber	1000000	NL		Onits	Analysis Date	Tiag	Di
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.20.19 09.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.20.19 09.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.20.19 09.26	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.20.19 09.26	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.20.19 09.26	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	06.20.19 09.26		
o-Terphenyl		84-15-1	94	%	70-135	06.20.19 09.26		





LT Environmental, Inc., Arvada, CO

Sample Id:FS02Lab Sample Id:628186-002	Matrix: Soil Date Collected: 06.17.19 13.35	Date Received:06.19.19 11.40 Sample Depth: 1.5 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093723	Date Prep: 06.25.19 14.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.27.19 03.14	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.27.19 03.14	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.27.19 03.14	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	06.27.19 03.14	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.27.19 03.14	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.27.19 03.14	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.27.19 03.14	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	129	%	70-130	06.27.19 03.14		
1,4-Difluorobenzene		540-36-3	91	%	70-130	06.27.19 03.14		





LT Environmental, Inc., Arvada, CO

Sample Id:SW01Lab Sample Id:628186-003		Matrix: Date Collec	Soil eted: 06.17.19 13.45	Date Received:06.19.19 11.40 Sample Depth: 0 - 1.5 ft	
Analytical Method: Chloride by EP.	A 300			Prep Method: E300P	
Tech:CHEAnalyst:CHESeq Number:3093006		Date Prep:	06.19.19 17.00	% Moisture: Basis: Wet Weight	
Parameter	Cas Number	Result	RL	Units Analysis Date Flag	Dil
Chloride	16887-00-6	170	4.97	mg/kg 06.20.19 16.48	1
Analytical Method: TPH by SW801	5 Mod			Prep Method: TX1005P	
Tech: ARM Analyst: ARM		Doto Drom	06.19.19 17.00	% Moisture: Basis: Wet Weight	
Seq Number: 3092947		Date Prep:	00.19.19 17.00	Dasis. wei weight	
Parameter	Cas Number	Result	RL	Units Analysis Date Flag	Dil

	DUCCIO	.15.0	15.0		/1	06 00 10 00 51		1
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.20.19 09.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.20.19 09.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.20.19 09.51	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.20.19 09.51	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.20.19 09.51	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	103	%	70-135	06.20.19 09.51		
o-Terphenyl		84-15-1	93	%	70-135	06.20.19 09.51		





LT Environmental, Inc., Arvada, CO

Sample Id:SW01Lab Sample Id:628186-003	Matrix: Soil Date Collected: 06.17.19 13.45	Date Received:06.19.19 11.40 Sample Depth: 0 - 1.5 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093723	Date Prep: 06.25.19 14.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.27.19 03.37	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.27.19 03.37	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.27.19 03.37	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	06.27.19 03.37	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.27.19 03.37	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.27.19 03.37	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.27.19 03.37	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	126	%	70-130	06.27.19 03.37		
1,4-Difluorobenzene		540-36-3	93	%	70-130	06.27.19 03.37		





LT Environmental, Inc., Arvada, CO

BEU 074

Sample Id:SW02Lab Sample Id:628186-004		Matrix: Date Colle	Soil cted: 06.17	.19 13.50		Date Received:06.19.19 11.40 Sample Depth: 0 - 1.5 ft				
Analytical Method: Chloride by EPA	A 300				F	Prep Method: E30)0P			
Tech: CHE					9	% Moisture:				
Analyst: CHE		Date Prep:	06.19	.19 17.00	E	Basis: We	t Weight			
Seq Number: 3093006										
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil		
Chloride	16887-00-6	348	4.99		mg/kg	06.20.19 16.53		1		
Analytical Method:TPH by SW8015Tech:ARMAnalyst:ARMSeq Number:3093110	5 Mod	Date Prep:	06.20	.19 11.50	9	Prep Method: TX % Moisture: Basis: We	1005P t Weight			
Tech: ARM Analyst: ARM	5 Mod Cas Number	Date Prep: Result	06.20 RL	.19 11.50	9	% Moisture:		Dil		
Tech:ARMAnalyst:ARMSeq Number:3093110		-		.19 11.50	9 E	Moisture: Basis: We	t Weight	Dil		
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter	Cas Number	Result	RL	.19 11.50	9 E Units	Moisture: Basis: We Analysis Date	t Weight Flag			
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result	RL 15.0	.19 11.50	9 E Units mg/kg	Moisture: Basis: We Analysis Date 06.21.19 10.46	t Weight Flag U	1		
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	Result <15.0 <15.0	RL 15.0 15.0	.19 11.50	9 E Units mg/kg mg/kg	Moisture: Basis: We Analysis Date 06.21.19 10.46 06.21.19 10.46	t Weight Flag U U	1 1		
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835	Result <15.0 <15.0 <15.0 <15.0	RL 15.0 15.0 15.0	.19 11.50	9 E Units mg/kg mg/kg mg/kg	Moisture: Basis: We Analysis Date 06.21.19 10.46 06.21.19 10.46 06.21.19 10.46	t Weight Flag U U U	1 1 1		
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total TPH	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result <15.0 <15.0 <15.0 <15.0 <15.0 <15.0	RL 15.0 15.0 15.0 15.0 15.0 %	.19 11.50 Units	9 E Units mg/kg mg/kg mg/kg mg/kg	Moisture: Basis: We Analysis Date 06.21.19 10.46 06.21.19 10.46 06.21.19 10.46	t Weight Flag U U U U U	1 1 1 1		
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total TPH Total GRO-DRO	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result <15.0 <15.0 <15.0 <15.0 <15.0 <15.0	RL 15.0 15.0 15.0 15.0 15.0		9 E Units mg/kg mg/kg mg/kg mg/kg mg/kg	Moisture: Basis: We Analysis Date 06.21.19 10.46 06.21.19 10.46 06.21.19 10.46 06.21.19 10.46 06.21.19 10.46	t Weight Flag U U U U U U	1 1 1 1		





LT Environmental, Inc., Arvada, CO

Sample Id:SW02Lab Sample Id:628186-004	Matrix: Soil Date Collected: 06.17.19 13.50	Date Received:06.19.19 11.40 Sample Depth: 0 - 1.5 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093723	Date Prep: 06.25.19 14.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	06.27.19 10.27	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	06.27.19 10.27	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	06.27.19 10.27	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	06.27.19 10.27	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	06.27.19 10.27	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	06.27.19 10.27	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	06.27.19 10.27	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	116	%	70-130	06.27.19 10.27		
1,4-Difluorobenzene		540-36-3	96	%	70-130	06.27.19 10.27		



LABORATORIES

Flagging Criteria



Page 51 of 130

- 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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	ent Sample	BLK	Method Blank	
BKS/LCS	S Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labo	ratory 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 628186

LT Environmental, Inc. **BEU 074**

Analytical Method: Seq Number: MB Sample Id:	Chloride by EPA 300 3092962 7680340-1-BLK	Matrix: LCS Sample Id:	Solid 7680340-1-BKS	Prep Method: E300P Date Prep: 06.19.19 LCSD Sample Id: 7680340-1-BSD	
Parameter	MB Spike Result Amount	LCS LCS Result %Rec	LCSD LCSD Lin Result %Rec	mits %RPD RPD Limit Units Analysis Flag Date	ş
Chloride	<0.858 250			-110 0 20 mg/kg 06.19.19 21:32	
Analytical Method: Seq Number: MB Sample Id:	Chloride by EPA 300 3093006 7680341-1-BLK	Matrix: LCS Sample Id:		Prep Method: E300P Date Prep: 06.19.19 LCSD Sample Id: 7680341-1-BSD	
Parameter	MB Spike Result Amount		LCSD LCSD Lin Result %Rec	mits %RPD RPD Limit Units Analysis Flag Date	ş
Chloride	<5.00 250			-110 0 20 mg/kg 06.20.19 14:42	
Analytical Method: Seq Number: Parent Sample Id:	Chloride by EPA 300 3092962 628183-003	Matrix: MS Sample Id:		Prep Method: E300P Date Prep: 06.19.19 MSD Sample Id: 628183-003 SD	
Parameter	Parent Spike Result Amount	MS MS Result %Rec	MSD MSD Lin Result %Rec	mits %RPD RPD Limit Units Analysis Flag Date	ş
Chloride	201 252			-110 0 20 mg/kg 06.19.19 21:54	
Analytical Method: Seq Number: Parent Sample Id:	Chloride by EPA 300 3092962 628185-006	Matrix: MS Sample Id:		Prep Method: E300P Date Prep: 06.19.19 MSD Sample Id: 628185-006 SD	

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	nit Units	Analysis Date	Flag
Chloride	79.2	248	333	102	332		90-110	0	20	mg/kg	06.19.19 23:35	

Analytical Method:	Chloride by EPA 3	00						\mathbf{P}_{1}	rep Meth	od: E30	0P	
Seq Number:	3093006			Matrix:	Soil				Date Pr	ep: 06.1	9.19	
Parent Sample Id:	628389-001		MS Sar	nple Id:	628389-00	01 S		MS	D Sampl	e Id: 628	389-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	uit Units	Analysis Date	Flag
Chloride	421	252	632	84	630	83	90-110	0	20	mg/kg	06.20.19 14:57	x

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

[D] = 100*(C-A) / B $\begin{aligned} \text{RPD} &= 200^* \mid (\text{C-E}) / (\text{C+E}) \mid \\ \text{[D]} &= 100^* (\text{C}) / \text{[B]} \end{aligned}$ Log Diff. = Log(Sample Duplicate) - Log(Original Sample) LCS = Laboratory Control SampleA = Parent Result C = MS/LCS Result E = MSD/LCSD Result

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

Received by OCD: 2/20/2023 1:26:39 PM



QC Summary 628186

LT Environmental, Inc. **BEU 074**

Analytical Method:	Chloride by EPA 3	00						Pr	ep Metho	d: E30	0P	
Seq Number:	3093006 Matrix				Soil	Soil Date Prep:				p: 06.1	9.19	
Parent Sample Id:	628389-010		MS Sar	nple Id:	628389-01	10 S		MSI	O Sample	Id: 628	389-010 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Chloride	< 5.01	251	243	97	243	97	90-110	0	20	mg/kg	06.20.19 16:05	

Analytical Method: Seq Number:	Matrix: Solid					Prep Method: TX1005P Date Prep: 06.19.19							
MB Sample Id:	7680348-1	-BLK		LCS Sample Id: 7680348-1-BKS LCSD Samp						SD Sample	Id: 768)348-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	<15.0	1000	916	92	963	96	70-135	5	20	mg/kg	06.19.19 23:53	
Diesel Range Organics	(DRO)	<8.13	1000	873	87	876	88	70-135	0	20	mg/kg	06.19.19 23:53	
Surrogate		MB %Rec	MB Flag			LCS Flag	LCSI %Re		_	Limits	Units	Analysis Date	
1-Chlorooctane		116		1	01		105		7	0-135	%	06.19.19 23:53	
o-Terphenyl		103		ļ	94		99		7	0-135	%	06.19.19 23:53	

Analytical Method: Seq Number: MB Sample Id:	eq Number: 3093110					Matrix: Solid LCS Sample Id: 7680420-1-BKS					Prep Method: TX1005P Date Prep: 06.20.19 LCSD Sample Id: 7680420-1-BSD			
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Gasoline Range Hydrocarbo	ons (GRO)	<15.0	1000	964	96	922	92	70-135	4	20	mg/kg	06.21.19 00:52		
Diesel Range Organics ((DRO)	<8.13	1000	953	95	926	93	70-135	3	20	mg/kg	06.21.19 00:52		
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Ree		-	limits	Units	Analysis Date		
1-Chlorooctane		93		1	02		99		7	0-135	%	06.21.19 00:52		
o-Terphenyl		84		1	01		104		7	0-135	%	06.21.19 00:52		

Analytical Method: Seq Number: Parent Sample Id:	TPH by S 3092947 628180-00		lod		Matrix: nple Id:		01 S			rep Methe Date Pr D Sample	ep: 06.1	.005P 9.19 180-001 SD	
Parameter	020100 00	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits		RPD Lim		Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	14.4	998	958	95	998	99	70-135	4	20	mg/kg	06.20.19 01:06	
Diesel Range Organics	(DRO)	11.5	998	893	88	1020	101	70-135	13	20	mg/kg	06.20.19 01:06	
Surrogate					AS Rec	MS Flag	MSE %Re			imits	Units	Analysis Date	
1-Chlorooctane					94		96		7	0-135	%	06.20.19 01:06	
o-Terphenyl				:	84		94		7	0-135	%	06.20.19 01:06	

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Received by OCD: 2/20/2023 1:26:39 PM



QC Summary 628186

LT Environmental, Inc. **BEU 074**

Analytical Method: TPI	I by SW8015 M	od						Prep Metl	nod: TX	1005P	
Seq Number: 309	3110			Matrix:	Soil			Date P	rep: 06.2	20.19	
Parent Sample Id: 628	185-001		MS Sar	nple Id:	628185-0	01 S		MSD Samp	le Id: 628	185-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD RPD Lin	nit Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (G	RO) <15.0	1000	808	81	858	86	70-135	6 20	mg/kg	06.21.19 02:05	
Diesel Range Organics (DRO	10.7	1000	778	77	824	81	70-135	6 20	mg/kg	06.21.19 02:05	
Surrogate				/IS Rec	MS Flag	MSD %Re			Units	Analysis Date	
1-Chlorooctane			-	73		86		70-135	%	06.21.19 02:05	
o-Terphenyl				71		87		70-135	%	06.21.19 02:05	

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 802 3093723 7680761-1-BLK	1B	I LCS San	Matrix: ple Id:	Solid 7680761-	1-BKS			Prep Method Date Prej SD Sample	p: 06.2	5030B 5.19 0761-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI	D RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00199	0.0994	0.0851	86	0.0936	94	70-130	10	35	mg/kg	06.26.19 19:56	
Toluene	< 0.000453	0.0994	0.0953	96	0.102	102	70-130	7	35	mg/kg	06.26.19 19:56	
Ethylbenzene	< 0.000561	0.0994	0.0973	98	0.106	106	70-130	9	35	mg/kg	06.26.19 19:56	
m,p-Xylenes	< 0.00101	0.199	0.192	96	0.208	104	70-130	8	35	mg/kg	06.26.19 19:56	
o-Xylene	0.000431	0.0994	0.0939	94	0.101	101	70-130	7	35	mg/kg	06.26.19 19:56	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSD %Rec			Limits	Units	Analysis Date	
1,4-Difluorobenzene	98		9	6		95			70-130	%	06.26.19 19:56	
4-Bromofluorobenzene	105		10	06		107			70-130	%	06.26.19 19:56	

Analytical Method: Seq Number: Parent Sample Id:	BTEX by EPA 802 3093723 628028-009	1B	MS San	Matrix: nple Id:		09 S			Prep Method Date Prep SD Sample	p: 06.2	5030B 5.19 028-009 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPI) RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0993	99	0.0998	100	70-130	1	35	mg/kg	06.26.19 19:09	
Toluene	0.000552	0.0998	0.102	102	0.103	102	70-130	1	35	mg/kg	06.26.19 19:09	
Ethylbenzene	0.000763	0.0998	0.103	102	0.103	102	70-130	0	35	mg/kg	06.26.19 19:09	
m,p-Xylenes	< 0.00101	0.200	0.205	103	0.208	103	70-130	1	35	mg/kg	06.26.19 19:09	
o-Xylene	0.000612	0.0998	0.100	100	0.101	100	70-130	1	35	mg/kg	06.26.19 19:09	
Surrogate				1S Rec	MS Flag	MSD %Ree			Limits	Units	Analysis Date	
1,4-Difluorobenzene			ç) 9		98			70-130	%	06.26.19 19:09	
4-Bromofluorobenzene			1	07		104			70-130	%	06.26.19 19:09	

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Received by OCD: 2007 service. Xenco will be liable only for the focument and relation of the service. Xenco will be liable only for the Relinquished by: (Signature)	7 Total 200.7 / 6010 Circle Method(s) a	PM	20MS	Swoi	FSOZ	1501	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Temperature (°C): Received Intact:	SAMPLE RECEIPT	Sampler's Name: R	P.O. Number:	Project Number:	Project Name:	Phone: 4	City, State ZIP: N	Address: 3	Company Name: L	roject Manager:	Page 55 of 130
Inquishment of s a cost of samples It be applied to e	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed		4			S	Matrix	Yes Ho	12/	(Ves No	T Temp Blank:	Robert McAfee	2RP-2664 21		BEU 074	432.704.5178	Midland, TX 79705	3300 North A Street	LT Environmental, Inc., Permian office	Ashley Ager	
amples constitutes a valid purch s and shall not assume any respo ach project and a charge of \$5 for Received by: (Signature)	BRCRA 13PPM Vized TCLP / SPLP 6		V 1350	5451	335	06/17/19 (330	Date Time Sampled Sampled	Total Containers:	Correction Factor:	Thermometer	Yes No Wet Ice:	Due D	2RP - 3213 Rush:	Routine	Tu	Email:					Houston, Midlanc Hobbs,NM (575-392
rchase order from client comp sponsibility for any losses or e for each sample submitted to re) (0/17/19	RCRA 13PPM Texas 11 AI Sb TCLP / SPLP 6010: 8RCRA Sb		0-1.5' 🖌 X	,5,	1.5' X	1.5' 1 X	Depth Number	erof		100 miles	res No	Due Date: 05/21(19	: 3day	9 	Turn Around	Email: ager@ltenv.com rmcafee@ltenv.com	City, State ZIP: Ca		Company Name: XT	Bill to: (if different) Kyl	Chain of Custody Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-333 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296 Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (8
ompany to Xenco, Its affiliates s or expenses incurred by the ad to Xenco, but not analyzed. Date/Time Rt 19 6 4 6	As Ba Be B Cd As Ba Be Cd Cr		×	\times	> > >	X	BTEX (I	EPA 0:	=802	-						cafee@ltenv.com	Carlsbad, NM		XTO-Energy	Kyle Littrel	Chain of Custody Dallas,TX (214) 902-0300 San Antonio;) EL Paso,TX (915)585-3443 Lubbock,T (480-355-0900) Atlanta,GA (770-449-880
tes and subcontractors. It assigns sta te client if such losses are due to circu d. These terms will be enforced unles Relinquisthed by: (Signature)	I Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag						· · · · · · · · · · · · · · ·								ANALYSIS REQUEST						Ody Antonio, TX (210) 509-3334 Jubbock, TX (806)794-1296 J-449-8800) Tampa, FL (813-620-2000)
tractors. It assigns standard terms and conditions loses are due to circumstances beyond the control will be enforced unless previously negotiated. d by: (Signature) Received by G by: (Signature) Received by	Pb Mg Mn Mo Ni K S Ni Se Ag Ti U														IEST	Deliverables: EDD	Reporting:Level II	State of Project:	Program: UST/PST		
and conditions legotlated. Received by: (Signature)	lg SiO2							TA								ADaPT	evel III PST/UST		I	š	Work Order No:
Date/Time OG/19/19/14:00 WWW	Na Sr TI Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg		¥			('s more to	Sample Comments	TAT starts the day received by the lab, if received by 4:30pm					•		Work Order Notes	Other:			RC Unerfund		12610

Received by OCD: 2/20/2023 1:26:39 PM



#14 Sample container(s) intact?

#17 Subcontract of sample(s)?

XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc. Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 06/19/2019 11:40:00 AM Temperature Measuring device used : R8 Work Order #: 628186 Comments Sample Receipt Checklist .3 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes #13 Samples properly preserved? Yes

#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:

#15 Sufficient sample amount for indicated test(s)?

#16 All samples received within hold time?

Brianna Teel

Date: 06/19/2019

Yes

Yes

Yes

N/A

Checklist reviewed by: Jessica WAMER

Jessica Kramer

Date: 06/19/2019

for LT Environmental, Inc.

Project Manager: Ashley Ager

BEU 074

27-JUN-19

Collected By: Client





1211 W. Florida Ave Midland TX 79701

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

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

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





27-JUN-19

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

Reference: XENCO Report No(s): 628187 BEU 074 Project Address: Delaware Basin

Ashley Ager:

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) 628187. 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. 628187 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,

Jession Vermer

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 628187



LT Environmental, Inc., Arvada, CO

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS03	S	06-17-19 12:30	1 ft	628187-001
FS04	S	06-17-19 12:35	1 ft	628187-002
FS05	S	06-17-19 12:40	1 ft	628187-003
SW03	S	06-17-19 12:50	0 - 1 ft	628187-004
SW04	S	06-17-19 13:05	0 - 1 ft	628187-005



CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: BEU 074

Project ID: Work Order Number(s): 628187

ATORIES

Report Date: 27-JUN-19 Date Received: 06/19/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3093583 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3093649 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





Project Id:Contact:Ashley AgerProject Location:Delaware Basin



LT Environmental, Inc., Arvada, CO Project Name: BEU 074



Date Received in Lab:Wed Jun-19-19 11:40 amReport Date:27-JUN-19Project Manager:Jessica Kramer

	Lab Id:	628187-0	001	628187-	002	628187-0	003	628187-	004	628187-	005	
	Field Id:	FS03		FS04		FS05		SW03		SW04		
Analysis Requested	Depth:	1505 1- ft		1- ft		1505 1- ft		0-1 ft		0-1 ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		
			12.20							~		
	Sampled:	Jun-17-19 1	12:30	Jun-17-19	12:35	Jun-17-19	12:40	Jun-17-19	12:50	Jun-17-19	13:05	
BTEX by EPA 8021B	Extracted:	Jun-24-19 2	23:00	Jun-24-19	23:00	Jun-24-19	23:00	Jun-24-19	23:00	Jun-25-19	17:00	
	Analyzed:	Jun-25-192	22:42	Jun-25-19	23:04	Jun-25-19	23:26	Jun-25-19	23:48	Jun-26-19	14:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene		< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Toluene		< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Ethylbenzene		< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
m,p-Xylenes		< 0.00402	0.00402	< 0.00402	0.00402	< 0.00401	0.00401	< 0.00399	0.00399	< 0.00399	0.00399	
o-Xylene		< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Total Xylenes		< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Total BTEX		< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Chloride by EPA 300	Extracted:	Jun-19-19	17:00	Jun-19-19	17:00	Jun-19-19	19:00	Jun-19-19	19:00	Jun-19-19	19:00	
	Analyzed:	Jun-20-19	16:58	Jun-20-19	17:03	Jun-19-19	20:23	Jun-19-19	20:40	Jun-19-19	20:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		< 5.02	5.02	<4.98	4.98	<4.96	4.96	15.5	5.03	<4.98	4.98	
TPH by SW8015 Mod	Extracted:	Jun-20-19	11:50	Jun-20-19	11:50	Jun-20-19	11:50	Jun-19-19	12:00	Jun-19-19	12:00	
	Analyzed:	Jun-21-19 (09:29	Jun-21-19	09:55	Jun-21-19	10:20	Jun-19-19	22:14	Jun-19-19	22:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	132	15.0	<15.0	15.0	
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	18.1	15.0	<15.0	15.0	
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	150	15.0	<15.0	15.0	
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	132	15.0	<15.0	15.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

fession kenner

Jessica Kramer Project Assistant





LT Environmental, Inc., Arvada, CO

Sample Id: Lab Sample Id:	FS03 : 628187-001		Matrix: Date Collec	Soil eted: 06.17.19 12.30		Date Received:06. Sample Depth: 1 ft)
Tech: Analyst:	hod: Chloride by EPA CHE CHE 3093006	300	Date Prep:	06.19.19 17.00		Prep Method: E30 % Moisture: Basis: We	00P t Weight	
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	<5.02	5.02	mg/kg	06.20.19 16.58	U	1
Tech: Analyst:	hod: TPH by SW8015 ARM ARM 3093110	Mod	Date Prep:	06.20.19 11.50		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil

						•	•	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.21.19 09.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.21.19 09.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.21.19 09.29	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.21.19 09.29	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.21.19 09.29	U	1
Surrogate		% Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	80	%	70-135	06.21.19 09.29		
o-Terphenyl		84-15-1	85	%	70-135	06.21.19 09.29		





LT Environmental, Inc., Arvada, CO

Sample Id:FS03Lab Sample Id:628187-001	Matrix: Soil Date Collected: 06.17.19 12.30	Date Received:06.19.19 11.40 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093583	Date Prep: 06.24.19 23.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	06.25.19 22.42	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	06.25.19 22.42	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	06.25.19 22.42	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	06.25.19 22.42	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	06.25.19 22.42	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	06.25.19 22.42	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	06.25.19 22.42	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	106	%	70-130	06.25.19 22.42		
1,4-Difluorobenzene		540-36-3	96	%	70-130	06.25.19 22.42		





LT Environmental, Inc., Arvada, CO

Sample Id: FS04		Matrix:	Soil		Date Received:06.	19.19 11.4	0
Lab Sample Id: 628187-002		Date Colle	cted: 06.17.19 12.35		Sample Depth: 1 ft		
Analytical Method: Chloride by EF	PA 300				Prep Method: E30)0P	
Tech: CHE					% Moisture:		
Analyst: CHE		Date Prep:	06.19.19 17.00		Basis: We	t Weight	
Seq Number: 3093006		-					
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	06.20.19 17.03	U	1
Analytical Method: TPH by SW80	15 Mod				Prep Method: TX	1005P	
Tech: ARM					% Moisture:		
Analyst: ARM		Date Prep:	06.20.19 11.50		Basis: We	t Weight	
Seq Number: 3093110							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.21.19 09.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.21.19 09.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	06.21.19 09.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.21.19 09.55	U	1

Total TPH	PHC635	<15.0	15.0		mg/kg	06.21.19 09.55	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.21.19 09.55	U	1
Surrogate		% Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	1	11-85-3	85	%	70-135	06.21.19 09.55		
o-Terphenyl	8	4-15-1	75	%	70-135	06.21.19 09.55		





LT Environmental, Inc., Arvada, CO

Sample Id:FS04Lab Sample Id:628187-002	Matrix: Soil Date Collected: 06.17.19 12.35	Date Received:06.19.19 11.40 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093583	Date Prep: 06.24.19 23.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	06.25.19 23.04	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	06.25.19 23.04	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	06.25.19 23.04	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	06.25.19 23.04	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	06.25.19 23.04	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	06.25.19 23.04	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	06.25.19 23.04	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	96	%	70-130	06.25.19 23.04		
4-Bromofluorobenzene		460-00-4	105	%	70-130	06.25.19 23.04		





LT Environmental, Inc., Arvada, CO

Sample Id: FS05 Lab Sample Id: 628187-003		Matrix: Date Collec	Soil eted: 06.17.19 12.40		Date Received:06.19.19 11.40 Sample Depth: 1 ft			
Analytical Method: Chloride by EP Tech: SPC	A 300				Prep Method: E30 % Moisture:	00P		
Analyst:SPCSeq Number:3092993		Date Prep:	06.19.19 19.00		Basis: We	t Weight		
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	<4.96	4.96	mg/kg	06.19.19 20.23	U	1	
Analytical Method:TPH by SW801Tech:ARMAnalyst:ARMSeq Number:3093110	15 Mod	Date Prep:	06.20.19 11.50		Prep Method: TX % Moisture: Basis: We	1005P t Weight		
Tech: ARM Analyst: ARM	15 Mod Cas Number	Date Prep: Result	06.20.19 11.50 RL		% Moisture:		Dil	
Tech:ARMAnalyst:ARMSeq Number:3093110					% Moisture: Basis: We	t Weight	Dil	
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter	Cas Number	Result	RL	Units	Moisture: Basis: We Analysis Date	t Weight Flag		
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result	RL 15.0	Units mg/kg	Moisture: Basis: We Analysis Date 06.21.19 10.20	t Weight Flag U		
Tech: ARM Analyst: ARM Seq Number: 3093110 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	Result <15.0 <15.0	RL 15.0 15.0	Units mg/kg mg/kg	Moisture: Basis: We <u>Analysis Date</u> 06.21.19 10.20 06.21.19 10.20	t Weight Flag U U	1 1	

Total GRO-DRO	PHC028	<13.0	15.0		mg/kg	00.21.19 10.20	U	
Surrogate		% Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	86	%	70-135	06.21.19 10.20		
o-Terphenyl		84-15-1	83	%	70-135	06.21.19 10.20		





LT Environmental, Inc., Arvada, CO

Sample Id:FS05Lab Sample Id:628187-003	Matrix: Soil Date Collected: 06.17.19 12.40	Date Received:06.19.19 11.40 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093583	Date Prep: 06.24.19 23.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.25.19 23.26	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.25.19 23.26	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.25.19 23.26	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	06.25.19 23.26	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.25.19 23.26	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.25.19 23.26	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.25.19 23.26	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	106	%	70-130	06.25.19 23.26		
1,4-Difluorobenzene		540-36-3	96	%	70-130	06.25.19 23.26		





LT Environmental, Inc., Arvada, CO

BEU 074

Sample Id: SW03		Matrix:	Soil	Ι	Date Received:06.1	9.19 11.4	0
Lab Sample Id: 628187-004		Date Collec	cted: 06.17.19 12.50	S	ample Depth: 0 -	l ft	
Analytical Method: Chloride by EF	PA 300			F	Prep Method: E30	0P	
Tech: SPC				9	6 Moisture:		
Analyst: SPC		Date Prep:	06.19.19 19.00	E	Basis: Wet	Weight	
Seq Number: 3092993						C C	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.5	5.03	mg/kg	06.19.19 20.40		1
Analytical Method: TPH by SW80 Tech: ARM	15 WOU				Prep Method: TXI 6 Moisture:	10031	
				9	6 Moisture:		
Analyst: ARM		Date Prep:	06.19.19 12.00	E	Basis: Wet	Weight	
Seq Number: 3092946							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Di
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.19.19 22.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	132	15.0	mg/kg	06.19.19 22.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	18.1	15.0	mg/kg	06.19.19 22.14		1
Total TPH	PHC635	150	15.0	mg/kg	06.19.19 22.14		1
Total GRO-DRO	PHC628	132	15.0	mg/kg	06.19.19 22.14		1
Surrogate		% Cas Number	Recovery Units	Limits	Analysis Date	Flag	

-Chlorooctane 9-Terphenyl	111-85-3 84-15-1	101 94	% %	70-135 70-135	06.19.19 22.14 06.19.19 22.14

Cas Number

Units

Limits

Analysis Date

Flag

.

Surrogate





LT Environmental, Inc., Arvada, CO

Sample Id:SW03Lab Sample Id:628187-004	Matrix: Soil Date Collected: 06.17.19 12.50	Date Received:06.19.19 11.40 Sample Depth: 0 - 1 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093583	Date Prep: 06.24.19 23.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
71-43-2	< 0.00200	0.00200		mg/kg	06.25.19 23.48	U	1
108-88-3	< 0.00200	0.00200		mg/kg	06.25.19 23.48	U	1
100-41-4	< 0.00200	0.00200		mg/kg	06.25.19 23.48	U	1
179601-23-1	< 0.00399	0.00399		mg/kg	06.25.19 23.48	U	1
95-47-6	< 0.00200	0.00200		mg/kg	06.25.19 23.48	U	1
1330-20-7	< 0.00200	0.00200		mg/kg	06.25.19 23.48	U	1
	< 0.00200	0.00200		mg/kg	06.25.19 23.48	U	1
		% Recovery					
	Cas Number		Units	Limits	Analysis Date	Flag	
	540-36-3	96	%	70-130	06.25.19 23.48		
	460-00-4	109	%	70-130	06.25.19 23.48		
	71-43-2 108-88-3 100-41-4 179601-23-1 95-47-6 1330-20-7	71-43-2 <0.00200	71-43-2 <0.00200	71-43-2 <0.00200	71-43-2 <0.00200	71-43-2 <0.00200	71-43-2 <0.00200 0.00200 mg/kg 06.25.19 23.48 U 108-88-3 <0.00200





LT Environmental, Inc., Arvada, CO

Sample Id:SW04Matrix:SoilDate Received:06.19.19 11.40)	
3187-005	Date Collect	ted: 06.17.19 13.05		Sample Depth: 0 - 1 ft		
Chloride by EPA 300				Prep Method: E30)0P	
				% Moisture:		
1	Date Prep:	06.19.19 19.00		Basis: We	t Weight	
2993						
Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
16887-00-6	<4.98	4.98	mg/kg	06.19.19 20.45	U	1
28 1: C	8187-005 C C O O C O C C C C C C C C C C C C C	8187-005 Date Collec 1: Chloride by EPA 300 C C Date Prep: 02993 Cas Number	8187-005 Date Collected: 06.17.19 13.05 I: Chloride by EPA 300 Date Prep: 06.19.19 19.00 C Date Prep: 06.19.19 19.00 02993 Cas Number Result RL RL	Base Date Collected: 06.17.19 13.05 E: Chloride by EPA 300 Date Prep: 06.19.19 19.00 C Date Prep: 06.19.19 19.00 Description Description Cas Number Result RL Units	8187-005 Date Collected: 06.17.19 13.05 Sample Depth: 0 - 1: Chloride by EPA 300 Prep Method: E30 C Moisture: Date Prep: 06.19.19 19.00 Basis: We 02993 Cas Number	88187-005 Date Collected: 06.17.19 13.05 Sample Depth: 0 - 1 ft 1: Chloride by EPA 300 Prep Method: E300P % Moisture: C Date Prep: 06.19.19 19.00 Basis: Wet Weight O2993 Cas Number RL Units Analysis Date Flag

Analytical Method: TPH by SW801	5 Mod				Р	rep Method: TX	1005P	
Tech: ARM					%	Moisture:		
Analyst: ARM		Date Prep:	06.19.	19 12.00	В	asis: We	t Weight	
Seq Number: 3092946								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.19.19 22.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.19.19 22.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.19.19 22.39	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.19.19 22.39	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.19.19 22.39	U	1
Surrogate		% Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	11	1-85-3	113	%	70-135	06.19.19 22.39		
o-Terphenyl	84	4-15-1	92	%	70-135	06.19.19 22.39		





LT Environmental, Inc., Arvada, CO

Sample Id:SW04Lab Sample Id:628187-005	Matrix: Soil Date Collected: 06.17.19 13.05	Date Received:06.19.19 11.40 Sample Depth: 0 - 1 ft
Analytical Method:BTEX by EPA 8021BTech:DVMAnalyst:DVMSeq Number:3093649	Date Prep: 06.25.19 17.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
71-43-2	< 0.00200	0.00200		mg/kg	06.26.19 14.14	U	1
108-88-3	< 0.00200	0.00200		mg/kg	06.26.19 14.14	U	1
100-41-4	< 0.00200	0.00200		mg/kg	06.26.19 14.14	U	1
179601-23-1	< 0.00399	0.00399		mg/kg	06.26.19 14.14	U	1
95-47-6	< 0.00200	0.00200		mg/kg	06.26.19 14.14	U	1
1330-20-7	< 0.00200	0.00200		mg/kg	06.26.19 14.14	U	1
	< 0.00200	0.00200		mg/kg	06.26.19 14.14	U	1
	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
	540-36-3	92	%	70-130	06.26.19 14.14		
	460-00-4	102	%	70-130	06.26.19 14.14		
	71-43-2 108-88-3 100-41-4 179601-23-1 95-47-6	71-43-2 <0.00200	71-43-2 <0.00200 0.00200 108-88-3 <0.00200	71-43-2 <0.00200 0.00200 108-88-3 <0.00200	71-43-2 <0.00200 0.00200 mg/kg 108-88-3 <0.00200	71-43-2 <0.00200 mg/kg 06.26.19 14.14 108-88-3 <0.00200	71-43-2 <0.00200 mg/kg 06.26.19 14.14 U 108-88-3 <0.00200



LABORATORIES

Flagging Criteria



Page 72 of 130

- 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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	ent Sample	BLK	Method Blank		
BKS/LCS Blank Spike/Laboratory Control Sample		BKSD/LCSD	Blank Spike Duplicate/Laboratory Control Sample Duplic		
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 628187

LT Environmental, Inc. **BEU 074**

Analytical Method: Seq Number: MB Sample Id:	Chloride by EPA 30 3093006 7680341-1-BLK	0		Matrix: nple Id:	Solid 7680341-1	I-BKS			rep Metho Date Pro D Sample	ep: 06.1		
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	246	98	90-110	0	20	mg/kg	06.20.19 14:42	

Analytical Method:	Chloride by EPA 30)0						Pr	ep Meth	od: E300)P	
Seq Number:	3092993			Matrix:	Solid				Date Pr	ep: 06.1	9.19	
MB Sample Id:	7680344-1-BLK		LCS San	nple Id:	7680344-1	I-BKS		LCSI	D Sample	e Id: 7680)344-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	uit Units	Analysis Date	Flag

Analytical Method:	Chloride by EPA 30	0						P	rep Meth	od: E300)P	
Seq Number:	3093006]	Matrix:	Soil				Date Pr	ep: 06.1	9.19	
Parent Sample Id:	628389-001		MS San	nple Id:	628389-00	01 S		MS	D Sample	e Id: 6283	389-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Chloride	421	252	632	84	630	83	90-110	0	20	mg/kg	06.20.19 14:57	Х

Analytical Method:	Chloride by EPA 30)0						Pı	ep Meth	od: E30	0P	
Seq Number:	3093006			Matrix:	Soil				Date Pr	ep: 06.1	9.19	
Parent Sample Id:	628389-010		MS San	nple Id:	628389-01	10 S		MS	D Sample	e Id: 628	389-010 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	iit Units	Analysis Date	Flag
Chloride	< 5.01	251	243	97	243	97	90-110	0	20	mg/kg	06.20.19 16:05	

Analytical Method:	Chloride by EPA 30	00						Р	rep Meth	od: E30	OP	
Seq Number:	3092993			Matrix:	Soil				Date Pr	ep: 06.1	9.19	
Parent Sample Id:	628187-003		MS Sar	nple Id:	628187-00)3 S		MS	D Sampl	e Id: 628	187-003 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Chloride	4.75	248	242	96	242	96	90-110	0	20	mg/kg	06.19.19 20:29	

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

[D] = 100*(C-A) / B $\begin{aligned} \text{RPD} &= 200^* \mid (\text{C-E}) / (\text{C+E}) \mid \\ \text{[D]} &= 100^* (\text{C}) / \text{[B]} \end{aligned}$ Log Diff. = Log(Sample Duplicate) - Log(Original Sample) LCS = Laboratory Control SampleA = Parent Result C = MS/LCS Result E = MSD/LCSD Result

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec





QC Summary 628187

LT Environmental, Inc. **BEU 074**

Analytical Method:	Chloride by EPA	300						Pr	ep Metho	od: E30	0P	
Seq Number:	3092993			Matrix:	Soil				Date Pre	ep: 06.1	9.19	
Parent Sample Id:	628192-007		MS San	nple Id:	628192-00)7 S		MS	D Sample	e Id: 628	192-007 SD	
Parameter	Paren Resul		MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride												

Analytical Method: Seq Number:	TPH by S 3092946	W8015 M	od		Matrix:	Solid			I	Prep Metho Date Prej		005P 9.19	
MB Sample Id:	7680347-1	-BLK		LCS San	nple Id:	7680347-	1-BKS		LCS	SD Sample	Id: 768)347-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPE) RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	10.1	1000	855	86	813	81	70-135	5	20	mg/kg	06.19.19 12:31	
Diesel Range Organics	(DRO)	<8.13	1000	844	84	807	81	70-135	4	20	mg/kg	06.19.19 12:31	
Surrogate		MB %Rec	MB Flag			LCS Flag	LCS %Re		-	Limits	Units	Analysis Date	
1-Chlorooctane		99		ç	94		85		7	70-135	%	06.19.19 12:31	
o-Terphenyl		92		ç	99		86		7	70-135	%	06.19.19 12:31	

Analytical Method: Seq Number: MB Sample Id:	TPH by S 3093110 7680420-1		od	LCS San	Matrix:		1-BKS			Prep Method Date Prej SD Sample	p: 06.2	005P 0.19 0420-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	<15.0	1000	964	96	922	92	70-135	4	20	mg/kg	06.21.19 00:52	
Diesel Range Organics	(DRO)	<8.13	1000	953	95	926	93	70-135	3	20	mg/kg	06.21.19 00:52	
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re		-	Limits	Units	Analysis Date	
1-Chlorooctane		93		1	02		99		7	0-135	%	06.21.19 00:52	
o-Terphenyl		84		1	01		104		7	0-135	%	06.21.19 00:52	

Analytical Method: Seq Number: Parent Sample Id:	TPH by SV 3092946 628025-00		od	MS San	Matrix: nple Id:	Soil 628025-00)1 S			Prep Methe Date Pr SD Sample	ep: 06.1	005P 9.19 025-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPI) RPD Lim	uit Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	13.7	999	927	91	944	93	70-135	2	20	mg/kg	06.19.19 13:46	
Diesel Range Organics	(DRO)	8.15	999	914	91	933	93	70-135	2	20	mg/kg	06.19.19 13:46	
Surrogate					1S Rec	MS Flag	MSI %Re			Limits	Units	Analysis Date	
1-Chlorooctane				ç	93		94			70-135	%	06.19.19 13:46	
o-Terphenyl				9	93		91			70-135	%	06.19.19 13:46	

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Received by OCD: 2/20/2023 1:26:39 PM



QC Summary 628187

LT Environmental, Inc. **BEU 074**

Analytical Method:	TPH by S	W8015 M	od						Pr	ep Metho	d: TX1	.005P	
Seq Number:	3093110				Matrix:	Soil				Date Pre	p: 06.2	0.19	
Parent Sample Id:	628185-00	1		MS San	nple Id:	628185-00	01 S		MSI	D Sample	Id: 628	185-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Gasoline Range Hydrocarb	oons (GRO)	<15.0	1000	808	81	858	86	70-135	6	20	mg/kg	06.21.19 02:05	
Diesel Range Organics	(DRO)	10.7	1000	778	77	824	81	70-135	6	20	mg/kg	06.21.19 02:05	
Surrogate					1S Rec	MS Flag	MSI %Re			mits	Units	Analysis Date	
1-Chlorooctane				7	'3		86		70	-135	%	06.21.19 02:05	
o-Terphenyl				7	/1		87		70	-135	%	06.21.19 02:05	

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 8021 3093583 7680657-1-BLK	B	LCS San	Matrix: nple Id:	Solid 7680657-1	1-BKS			Prep Metho Date Pre SD Sample	p: 06.2	5030B 4.19 0657-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI) RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0884	88	0.0870	87	70-130	2	35	mg/kg	06.25.19 07:06	
Toluene	< 0.00200	0.100	0.0784	78	0.0868	87	70-130	10	35	mg/kg	06.25.19 07:06	
Ethylbenzene	< 0.00200	0.100	0.0738	74	0.0925	93	70-130	22	35	mg/kg	06.25.19 07:06	
m,p-Xylenes	< 0.00400	0.200	0.144	72	0.185	93	70-130	25	35	mg/kg	06.25.19 07:06	
o-Xylene	< 0.00200	0.100	0.0707	71	0.0857	86	70-130	19	35	mg/kg	06.25.19 07:06	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Ree			Limits	Units	Analysis Date	
1,4-Difluorobenzene	93		9	97		95		-	70-130	%	06.25.19 07:06	
4-Bromofluorobenzene	97		1	02		97			70-130	%	06.25.19 07:06	

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 8021 3093649 7680760-1-BLK	B	LCS San	Matrix: nple Id:	Solid 7680760-1	1-BKS			Prep Metho Date Pre SD Sample	p: 06.2	5030B 5.19 0760-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI	D RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0927	93	0.0942	95	70-130	2	35	mg/kg	06.26.19 16:56	
Toluene	< 0.00200	0.100	0.0942	94	0.0943	95	70-130	0	35	mg/kg	06.26.19 16:56	
Ethylbenzene	< 0.00200	0.100	0.0952	95	0.0951	96	70-130	0	35	mg/kg	06.26.19 16:56	
m,p-Xylenes	< 0.00400	0.200	0.189	95	0.187	94	70-130	1	35	mg/kg	06.26.19 16:56	
o-Xylene	< 0.00200	0.100	0.0909	91	0.0914	92	70-130	1	35	mg/kg	06.26.19 16:56	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSE %Rec			Limits	Units	Analysis Date	
1,4-Difluorobenzene	95		9	96		99			70-130	%	06.26.19 16:56	
4-Bromofluorobenzene	103		1	03		111			70-130	%	06.26.19 16:56	

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec





QC Summary 628187

LT Environmental, Inc. **BEU 074**

Analytical Method:	BTEX by EPA 8021B

Analytical Method: Seq Number: Parent Sample Id:	BTEX by EPA 802 1 3093583 627969-001	lB	Matrix: Soil MS Sample Id: 627969-001 S				Prep Method: SW5030B Date Prep: 06.24.19 MSD Sample Id: 627969-001 SD					
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPI	O RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0922	92	0.0999	100	70-130	8	35	mg/kg	06.25.19 11:37	
Toluene	< 0.00200	0.0998	0.0882	88	0.0968	97	70-130	9	35	mg/kg	06.25.19 11:37	
Ethylbenzene	< 0.00200	0.0998	0.0941	94	0.102	102	70-130	8	35	mg/kg	06.25.19 11:37	
m,p-Xylenes	< 0.00399	0.200	0.187	94	0.205	103	70-130	9	35	mg/kg	06.25.19 11:37	
o-Xylene	< 0.00200	0.0998	0.0868	87	0.0954	96	70-130	9	35	mg/kg	06.25.19 11:37	
Surrogate				1S Rec	MS Flag	MSD %Ree			Limits	Units	Analysis Date	
1,4-Difluorobenzene			9	9		100			70-130	%	06.25.19 11:37	
4-Bromofluorobenzene			1	08		104			70-130	%	06.25.19 11:37	

Analytical Method:	halytical Method: BTEX by EPA 8021B Prep Method: SW5030B											
Seq Number:	3093649		Ν	Matrix:	Soil		Date Prep:			p: 06.2	: 06.25.19	
Parent Sample Id:	628191-001		MS Sample Id: 628191-001 S			MSD Sample Id: 628191-001 SD						
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPI) RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0849	85	0.0910	91	70-130	7	35	mg/kg	06.26.19 17:40	
Toluene	< 0.00200	0.0998	0.0820	82	0.0868	87	70-130	6	35	mg/kg	06.26.19 17:40	
Ethylbenzene	< 0.00200	0.0998	0.0852	85	0.0907	91	70-130	6	35	mg/kg	06.26.19 17:40	
m,p-Xylenes	< 0.00399	0.200	0.169	85	0.180	90	70-130	6	35	mg/kg	06.26.19 17:40	
o-Xylene	< 0.00200	0.0998	0.0816	82	0.0867	87	70-130	6	35	mg/kg	06.26.19 17:40	
Surrogate				IS Rec	MS Flag	MSE %Re		-	Limits	Units	Analysis Date	
1,4-Difluorobenzene			9	8		97		7	70-130	%	06.26.19 17:40	
4-Bromofluorobenzene			11	13		108		-	70-130	%	06.26.19 17:40	

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

[D] = 100*(C-A) / B $\begin{aligned} \text{RPD} &= 200^* \mid (\text{C-E}) / (\text{C+E}) \mid \\ \text{[D]} &= 100^* (\text{C}) / \text{[B]} \end{aligned}$ Log Diff. = Log(Sample Duplicate) - Log(Original Sample) LCS = Laboratory Control SampleA = Parent Result C = MS/LCS Result E = MSD/LCSD Result

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

Received by OCD: 2/29 Relinquished by: (Signature)	Project Number: $2 RP - 7LG4$ $2 RP - 3LG4$ Sampler's Name: Robert McAfee SAMPLE RECEIPT Temp Blank: Yes Temperature (°C): Temp Blank: Yes Received Intact: Yes No Cooler Custody Seals: Yes No Sample Custody Seals: Yes No FSO3 Sub VIA Date FSO3 Sub VIA Date FSO3 Sub VIA Sample FSO3 Sub VIA Date FSO3 Sub VIA Sample FSO3 SUB VIA Sample Sub 3 SUB VIA Sample Sub 4 Sub 3 Sub 4 Sub 3 Sub 3 Sub 4 Sub 4 Sample Sample Sub 5 Sub 4 Sample Sub 5	Project Name: KEU O	432.704.5178	City, State ZIP: Midland, TX 79705		Company Name: LT Environmental, Inc.,	Project Manager: Ashley Ager	
Received by: (Signature)	Quarter Rush: Sampled NA Correction Factor: Thermometer NA Total Containers: Dapth NA Sampled Sampled Sampled 1235 1 Val 1235 1 Val 1235 1 Sampled 1240 1 Val 1235 1 Sampled 1240 1 Samples 1 1 Samples 0 1 Samples 1 1	Turn Around	577		et Address:	nc., Permian office	Bill to:	Houston, TX (281 Midland, TX (43 Hobbs, NM (575-392-7550)
Relinquished by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature) Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature	Project Number: 1,RP - 7264' 2,RP - 7213 Rush: 3 duy. Bampior's Name: Robert Mc/Nee Due Date: 3/24y Image: 3/24y Sampler's Name: Robert Mc/Nee Due Date: 3/24y Image: 3/24y Sampler's Name: Robert Mc/Nee Due Date: 3/24y Image: 3/24y Sample Custody Seals: Yee, Mp Total Containers: Provide Containers: Sample Custody Seals: Yee, Mp Name Date Containers: Sample Custody Seals: Yee, Mp Name Date Containers: F_COV Marky Date Simpled Date Containers: F_SOS 0/11/11/1 123.5 1 X X F_SOS 1/240 1/2.5 0.1 X X X SU003 SU03 SU03 125.5 0.1 X X X X SU003 SU03 SU03 125.0 1 X	ANALYSIS REQUEST	Email: ager@itenv.com rmcafee@itenv.com	City, State ZIP: Carlsbad, NM		Company Name: XTO-Energy		Chain of Custody Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296 Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8600) Tampa,FL (61)
will be enforced unless previously negotiated. d by: (Signature) Received by: (Signature)	1631		Deliverables: EDD ADaPT	Reporting:Level II evel III ST/UST		Program: UST/PST PRP Brownfields	Work Order Com	Work Order No:
Date/Time 06/18/9 14:00 (U)19/9	TAT starts the day received by the lab, if received by 4:30pm Sample Comments (<i>Ohnpost</i>) (<i>Ohnpot</i>) (<i>Ohnpost</i>) (Work Order Notes	Other:			RC Uperfund		DARD

Released to Imaging: 2/20/2023 1:29:37 PM

Final 1.000

Received by OCD: 2/20/2023 1:26:39 PM



#13 Samples properly preserved?

#14 Sample container(s) intact?

#17 Subcontract of sample(s)?

XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc. Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 06/19/2019 11:40:00 AM Temperature Measuring device used : R8 Work Order #: 628187 Sample Receipt Checklist .3 #1 *Temperature of cooler(s)? #2 *Shipping container in good condition? Yes #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6*Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? Yes

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

Analyst:

PH Device/Lot#:

Checklist completed by:

#15 Sufficient sample amount for indicated test(s)?

#18 Water VOC samples have zero headspace?

#16 All samples received within hold time?

Brianna Teel

Date: 06/19/2019

Yes

Yes

Yes

Yes

N/A

N/A

Comments

Checklist reviewed by: Jessica WAMER

Jessica Kramer

Date: 06/19/2019

for LT Environmental, Inc.

Project Manager: Dan Moir

BEU 74

29-JUN-19

Collected By: Client



1089 N Canal Street Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Atlanta (LELAP Lab ID #04176) Xenco-Tampa: Florida (E87429), North Carolina (483) Received by OCD: 2/20/2023 1:26:39 PM



29-JUN-19

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

Reference: XENCO Report No(s): 628550 **BEU 74** Project Address: Delaware Basin

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 628550. 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. 628550 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,

fession kenner

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

Page 2 of 20



ATORIES

Sample Cross Reference 628550

BEU 74

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	06-17-19 14:30	1 ft	628550-001
BH01 A	S	06-17-19 14:35	1.5 ft	628550-002
BH02	S	06-17-19 14:40	0.5 ft	628550-003
BH02 A	S	06-17-19 14:45	1 ft	628550-004



CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: BEU 74

Project ID: Work Order Number(s): 628550

ATORIES

Report Date: 29-JUN-19 Date Received: 06/20/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3093925 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





Project Id:Contact:Dan MoirProject Location:Delaware Basin

Certificate of Analysis Summary 628550

LT Environmental, Inc., Arvada, CO

Project Name: BEU 74

Date Received in Lab:Thu Jun-20-19 02:30 pmReport Date:29-JUN-19Project Manager:Jessica Kramer

	Lab Id:	628550-0	001	628550-0	002	628550-0)03	628550-	004	
Analysis Requested	Field Id:	BH01		BH01 A	4	BH02		BH02	A	
Analysis Kequesieu	Depth:	1- ft		1.5- ft		0.5- ft		1- ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL	,	
	Sampled:	Jun-17-19	14:30	Jun-17-19	14:35	Jun-17-19	14:40	Jun-17-19	14:45	
BTEX by EPA 8021B	Extracted:	Jun-27-19	16:30	Jun-27-19 1	6:30	Jun-27-19	16:30	Jun-27-19	16:30	
SUB: T104704400-18-16	Analyzed:	Jun-28-19	11:36	Jun-28-19 1	1:58	Jun-28-19	12:20	Jun-28-19	12:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	
Toluene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	
Ethylbenzene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	
m,p-Xylenes		< 0.00398	0.00398	< 0.00400	0.00400	< 0.00398	0.00398	< 0.00399	0.00399	
o-Xylene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	
Total Xylenes		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	
Total BTEX		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	
Chloride by EPA 300	Extracted:	Jun-22-19	17:30	Jun-22-19 1	7:30	Jun-22-19	17:30	Jun-22-19	17:30	
SUB: T104704400-18-16	Analyzed:	Jun-22-19 2	23:43	Jun-22-19 2	23:51	Jun-22-19	23:58	Jun-23-19	00:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		< 5.00	5.00	6.77	5.00	< 5.00	5.00	< 5.00	5.00	
TPH by SW8015 Mod	Extracted:	Jun-23-19	12:00	Jun-23-19 1	2:00	Jun-23-19	12:00	Jun-23-19	12:00	
SUB: T104704400-18-16	Analyzed:	Jun-24-19 (01:00	Jun-24-19 (02:13	Jun-24-19 (02:36	Jun-24-19	03:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

fession Vramer

Jessica Kramer Project Assistant

Page 5 of 20



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: BH01 Lab Sample Id: 628550-001		Matrix: Date Collec	Soil ted: 06.17.19 14.30		Date Received:06.20.19 14.30 Sample Depth: 1 ft				
Analytical Method: Chloride	by EPA 300]	Prep Method: E30	0P			
Tech: CHE					% Moisture:				
Analyst: CHE		Date Prep:	06.22.19 17.30	1	Basis: Wet	t Weight			
Seq Number: 3093292				:	SUB: T104704400	-18-16			
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil		
Chloride	16887-00-6	<5.00	5.00	mg/kg	06.22.19 23.43	U	1		

Analytical Method: TPH by SW80 Tech: ARM Analyst: ARM Seq Number: 3093434	15 Mod	Date Prep	Date Prep: 06.23.19 12.00			Prep Method: TX1005P % Moisture: Basis: Wet Weight SUB: T104704400-18-16			
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 01.00	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 01.00	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 01.00	U	1	
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 01.00	U	1	
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 01.00	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane	1	111-85-3	85	%	70-135	06.24.19 01.00			
o-Terphenyl	8	84-15-1	90	%	70-135	06.24.19 01.00			



LT Environmental, Inc., Arvada, CO

BEU 74

Devenue		71 42 0	0.00100 0	00100	/1	06 00 10 11 26	TT	1		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil		
Seq Number:	3093925				S	SUB: T104704400)-18-16			
Analyst:	FOV		Date Prep:	06.27.19 16.30	I	Basis: We	et Weight			
Tech:	DVM				Ģ	% Moisture:				
Analytical Me	ethod: BTEX by EP.	A 8021B			I	Prep Method: SW	/5030B			
Sample Id: Lab Sample Id	BH01 d: 628550-001		Matrix: Date Collect	Soil ed: 06.17.19 14.30		Date Received:06.20.19 14.30 Sample Depth: 1 ft				

						•		
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	06.28.19 11.36	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	06.28.19 11.36	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	06.28.19 11.36	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	06.28.19 11.36	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	06.28.19 11.36	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	06.28.19 11.36	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	06.28.19 11.36	U	1
		~ •• •	%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	97	%	70-130	06.28.19 11.36		
4-Bromofluorobenzene		460-00-4	110	%	70-130	06.28.19 11.36		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample Id:	BH01 A 628550-002		Matrix: Date Colle	Soil cted: 06.17.19 14.35		Date Received:06.20.19 14.30 Sample Depth: 1.5 ft				
Analytical Met	hod: Chloride by EPA	300				Prep Method: E30	0P			
Tech:	CHE					% Moisture:				
Analyst:	CHE		Date Prep:	06.22.19 17.30		Basis: Wet	Weight			
Seq Number:	3093292		-			SUB: T104704400	-18-16			
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil		
Chloride		16887-00-6	6.77	5.00	mg/kg	06.22.19 23.51		1		

Analytical Method:TPH by SW80Tech:ARMAnalyst:ARMSeq Number:3093434	15 Mod	Date Pre	p: 06.23.	19 12.00	9 E	Prep Method: TX 6 Moisture: Basis: We SUB: T104704400	t Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 02.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 02.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 02.13	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 02.13	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 02.13	U	1
Surrogate 1-Chlorooctane o-Terphenyl		Cas Number 111-85-3 84-15-1	% Recovery 77 81	Units % %	Limits 70-135 70-135	Analysis Date 06.24.19 02.13 06.24.19 02.13	Flag	



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample Id:	Lab Sample Id: 628550-002			Soil ed: 06.17.19 14.35	Date Received:06.20.19 14.30 Sample Depth: 1.5 ft				
-	thod: BTEX by EPA 802	21B				Prep Method:	SW5030B		
	DVM					% Moisture:			
Analyst:	FOV		Date Prep:	06.27.19 16.30		Basis:	Wet Weight		
Seq Number:	3093925					SUB: T10470	4400-18-16		
Parameter		Cas Number	Result	RL	Units	Analysis D	ate Flag	Dil	

1 al ameter	Cas i (unibe	Kesuit	KL		Units	Analysis Date	Flag	Dii
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.28.19 11.58	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.28.19 11.58	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.28.19 11.58	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	06.28.19 11.58	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.28.19 11.58	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.28.19 11.58	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.28.19 11.58	U	1
			%		.			
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	06.28.19 11.58		
4-Bromofluorobenzene		460-00-4	110	%	70-130	06.28.19 11.58		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: BH Lab Sample Id: 628		Matrix: Date Collec	Soil ted: 06.17.19 14.40		Date Received:06.20.19 14.30 Sample Depth: 0.5 ft				
Analytical Method:	Chloride by EPA 300				Prep Method: E30	0P			
Tech: CHE	3				% Moisture:				
Analyst: CHE	3	Date Prep:	06.22.19 17.30		Basis: Wet	t Weight			
Seq Number: 3093	3292				SUB: T104704400	-18-16			
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil		
Chloride	16887-00-6	<5.00	5.00	mg/kg	06.22.19 23.58	U	1		

Analytical Method:TPH by SW801Tech:ARMAnalyst:ARMSeq Number:3093434	Date Pre	Date Prep: 06.23.19 12.00			Prep Method: TX1005P % Moisture: Basis: Wet Weight SUB: T104704400-18-16			
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 02.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 02.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 02.36	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 02.36	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 02.36	U	1
Surrogate 1-Chlorooctane o-Terphenyl		Cas Number 111-85-3 84-15-1	% Recovery 72 78	Units % %	Limits 70-135 70-135	Analysis Date 06.24.19 02.36 06.24.19 02.36	Flag	



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample I	BH02 d: 628550-003		Matrix: Date Collect	Soil ted: 06.17.19 14.40	-	Date Received:06.20.19 14.30 Sample Depth: 0.5 ft				
Analytical Me	ethod: BTEX by EPA 8	8021B]	Prep Method: S	W5030B			
Tech:	DVM					% Moisture:				
Analyst:	FOV		Date Prep:	06.27.19 16.30]	Basis: V	Vet Weight			
Seq Number:	3093925		•		:	SUB: T1047044	00-18-16			
Parameter		Cas Number	Result	RL	Units	Analysis Date	e Flag	Dil		
Banzana		71-43-2	<0.00100 0	00199	ma/ka	06 28 19 12 20) U	1		

						-		
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	06.28.19 12.20	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	06.28.19 12.20	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	06.28.19 12.20	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	06.28.19 12.20	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	06.28.19 12.20	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	06.28.19 12.20	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	06.28.19 12.20	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	95	%	70-130	06.28.19 12.20		
4-Bromofluorobenzene		460-00-4	103	%	70-130	06.28.19 12.20		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: BH02 A Lab Sample Id: 628550-004		Matrix: Date Collec	Soil eted: 06.17.19 14.45		Date Received:06.20.19 14.30 Sample Depth: 1 ft				
Analytical Method: Chloride	e by EPA 300				Prep Method: E30	0P			
Tech: CHE					% Moisture:				
Analyst: CHE		Date Prep:	06.22.19 17.30		Basis: Wet	t Weight			
Seq Number: 3093292				1	SUB: T104704400	-18-16			
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil		
Chloride	16887-00-6	<5.00	5.00	mg/kg	06.23.19 00.05	U	1		

Analytical Method: TPH by SW80	15 Mod				F	Prep Method: TX	1005P		
Tech: ARM					9	% Moisture:			
Analyst: ARM		Date Pre	p: 06.23	19 12.00	E				
Seq Number: 3093434					S	SUB: T104704400)-18-16		
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	06.24.19 03.01	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9		mg/kg	06.24.19 03.01	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9		mg/kg	06.24.19 03.01	U	1	
Total TPH	PHC635	<14.9	14.9		mg/kg	06.24.19 03.01	U	1	
Total GRO-DRO	PHC628	<14.9	14.9		mg/kg	06.24.19 03.01	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane	1	111-85-3	79	%	70-135	06.24.19 03.01			
o-Terphenyl	8	34-15-1	85	%	70-135	06.24.19 03.01			



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id:BH02 ALab Sample Id:628550-004		Matrix: Date Collecte	Soil d: 06.17.19 14.45		Date Received:06.20.19 14.30 Sample Depth: 1 ft			
Analytical Method: BTEX by EPA 8	021B				Prep Method:	SW5030B		
Tech: DVM					% Moisture:			
Analyst: FOV		Date Prep:	06.27.19 16.30		Basis:	Wet Weight		
Seq Number: 3093925					SUB: T1047044	400-18-16		
Parameter	Cas Number	Result F	Ł	Units	Analysis Dat	e Flag	Dil	

1 al ameter	Cas i (unibe	Kesuit	KL		Units	Analysis Date	Flag	Dii
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.28.19 12.42	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.28.19 12.42	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.28.19 12.42	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	06.28.19 12.42	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.28.19 12.42	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.28.19 12.42	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.28.19 12.42	U	1
S		Cas Number	%	Units	Limits	Assalasta Data	Els	
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	110	%	70-130	06.28.19 12.42		
1,4-Difluorobenzene		540-36-3	100	%	70-130	06.28.19 12.42		



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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	ent Sample	BLK	Method Blank	
BKS/LCS	S Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labo	ratory 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 628550

LT Environmental, Inc.

BEU 74

Analytical Method:	Chloride by EPA 30	00						Pr	ep Metho	od: E30	0P	
Seq Number:	3093292			Matrix:	Solid				Date Pre	ep: 06.2	2.19	
MB Sample Id:	7680535-1-BLK		LCS Sample Id: 7680535-1-BKS LCSD Sample Id: 7680535-1-BSD				0535-1-BSD					
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD 1	RPD Limi	it Units	Analysis Date	Flag
Chloride	< 0.858	250	248	99	248	99	90-110	0	20	mg/kg	06.22.19 23:07	

Analytical Method:	Chloride by EPA 30	00						Pr	ep Metho	d: E30	00P	
Seq Number:	3093292			Matrix:	Soil				Date Pre	p: 06.2	22.19	
Parent Sample Id:	628540-002		MS Sar	nple Id:	628540-00	02 S		MSI	O Sample	Id: 628	540-002 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Chloride	160	250	363	81	363	81	90-110	0	20	mg/kg	06.22.19 23:29	Х

Analytical Method:	Chloride by EPA 3	00						Pr	ep Metho	od: E30	0P	
Seq Number:	3093292			Matrix:	Soil				Date Pro	ep: 06.2	2.19	
Parent Sample Id:	628585-002		MS Sar	nple Id:	628585-00)2 S		MS	D Sample	e Id: 628	585-002 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag

Analytical Method:	TPH by S	W8015 M	od]	Prep Method	i: TX1	.005P	
Seq Number:	3093434				Matrix:	Solid				Date Prep	p: 06.2	3.19	
MB Sample Id:	7680671-1	-BLK		LCS Sar	nple Id:	7680671-	1-BKS		LC	SD Sample	Id: 768	0671-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI) RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbo	ons (GRO)	9.45	1000	906	91	931	93	70-135	3	20	mg/kg	06.24.19 00:12	
Diesel Range Organics ((DRO)	8.62	1000	1020	102	1030	103	70-135	1	20	mg/kg	06.24.19 00:12	
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			Limits	Units	Analysis Date	
1-Chlorooctane		97			77		72		-	70-135	%	06.24.19 00:12	
o-Terphenyl		106		9	90		92		-	70-135	%	06.24.19 00:12	

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

Received by OCD: 2/20/2023 1:26:39 PM



QC Summary 628550

LT Environmental, Inc.

BEU 74

Analytical Method:	TPH by S	W8015 M	lod						Prep Method: TX1005P				
Seq Number:	3093434				Matrix:	Soil				Date Pre	p: 06.2	3.19	
Parent Sample Id:	628550-00)1		MS Sar	nple Id:	628550-00	01 S		MS	SD Sample	Id: 628	550-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	10.9	998	966	96	952	94	70-135	1	20	mg/kg	06.24.19 01:24	
Diesel Range Organics	(DRO)	9.40	998	996	99	1000	99	70-135	0	20	mg/kg	06.24.19 01:24	
Surrogate					AS Rec	MS Flag	MSD %Re		_	Limits	Units	Analysis Date	
1-Chlorooctane					77		82		7	0-135	%	06.24.19 01:24	
o-Terphenyl				9	95		91		7	0-135	%	06.24.19 01:24	

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 802 3093925 7681021-1-BLK	1B	LCS San	Matrix: nple Id:	Solid 7681021-	1-BKS			Prep Metho Date Pre CSD Sample	p: 06.2	5030B 7.19 1021-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI	D RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0794	79	0.0845	85	70-130	6	35	mg/kg	06.28.19 02:14	
Toluene	< 0.00200	0.100	0.0778	78	0.0828	83	70-130	6	35	mg/kg	06.28.19 02:14	
Ethylbenzene	< 0.00200	0.100	0.0838	84	0.0889	89	70-130	6	35	mg/kg	06.28.19 02:14	
m,p-Xylenes	< 0.00400	0.200	0.167	84	0.178	89	70-130	6	35	mg/kg	06.28.19 02:14	
o-Xylene	< 0.00200	0.100	0.0814	81	0.0877	88	70-130	7	35	mg/kg	06.28.19 02:14	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSD %Rec			Limits	Units	Analysis Date	
1,4-Difluorobenzene	92		ç	93		94			70-130	%	06.28.19 02:14	
4-Bromofluorobenzene	100		1	03		103			70-130	%	06.28.19 02:14	

Analytical Method: Seq Number: Parent Sample Id:	BTEX by EPA 802 3093925 628927-001	1B	MS San	Matrix: nple Id:		01 S			Prep Method Date Prep SD Sample I	p: 06.2	5030B 7.19 927-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPI	O RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00199	0.0994	0.0871	88	0.0789	79	70-130	10	35	mg/kg	06.28.19 10:29	
Toluene	< 0.00199	0.0994	0.0845	85	0.0778	78	70-130	8	35	mg/kg	06.28.19 10:29	
Ethylbenzene	< 0.00199	0.0994	0.0851	86	0.0799	80	70-130	6	35	mg/kg	06.28.19 10:29	
m,p-Xylenes	< 0.00398	0.199	0.169	85	0.160	80	70-130	5	35	mg/kg	06.28.19 10:29	
o-Xylene	< 0.00199	0.0994	0.0808	81	0.0746	75	70-130	8	35	mg/kg	06.28.19 10:29	
Surrogate				1S Rec	MS Flag	MSD %Re			Limits	Units	Analysis Date	
1,4-Difluorobenzene			ç	99		93			70-130	%	06.28.19 10:29	
4-Bromofluorobenzene			1	11		98		,	70-130	%	06.28.19 10:29	

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

					Cliant	citalli of custody	y		WORK OFGET NO:	····	
	RATORIES		Hot Mi Hobbs,NM (575	uston,TX (281) 240- idland,TX (432-704- -392-7550) Phoeni	 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 (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (815) 	902-0300 San Antor 15)585-3443 Lubboc Atlanta,GA (770-449-	Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296 Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)	620-2000)	www.xenco.com	n Page	of
Project Manager:	Den	Moir		Bill to: (if different)	ferent) Ku	le L:4rell			Work Order Comments	Comments	*
Company Name:	LT Environm	iconnental Inc	¢.	Company Name:	Vame:	1		Program: UST/PS	T PRP Brov	Program: UST/PST PRP Brownfields RRC Superfund	uperfund
Address:	3300 North	e	Street	Address:		J		State of Project:	# [[[
City, State ZIP:	Midland, TX	797	51	City, State ZIP:	Car	Isbad NM		Reporting:Level II	Level III PS	Reporting:Level II Level III PST/UST TRRP Level IV	
Phone:	(432) 704-	8118		Email: dmoir @	WV. COM	rmcafeca ltenu.com		Deliverables: EDD	ADaf	ADaPT Other:	
Project Name:	BEU	ht		Turn Around		A	ANALYSIS REQUEST	ST		Work Order Notes	r Notes
Project Number:				Routine				_			
P.O. Number:	2RP	- 2664		Rush: 3 day))					
Sampler's Name:	Robert	M.		Due Date:	15)	00.1					
SAMPLE RECEIPT		Temp Blank: Yes	Ð	Wet Ice: Yes No	80	3					
Temperature (°C):	w	1000	The	neter ID	2Α	PA					
Received Intact:	es	No			Ef	(E		_			
Cooler Custody Seals: Sample Custody Seals:	Yes No	NIA	Correction Factor:	actor: -0. 4		ide				TAT starts the day receiied by the	recevied by the
			Data	ta la	TF	-hlo				indone fe portoon in tom	of modelin
sample identification		Matrix San	Sampled Sampled	led Depth						Sample Comments	mments
8 Hol		120 5	06/17/19 1430	1 1'	X X I	×				discrete	
BHOI A			1435	1.	x	×					
RHOTA			Shhi .	0.0	× ×	x x					
/				-	_						
	/										
		\parallel			2	1	No.				
		-					1 Contraction				
		_									
Circle Method(s) and Metal(s) to be analyzed	200.8 / 6020: and Metal(s) to be	0: be analyzec	8RC	CLP / SPLP 6010: 8R	Al Sb As Ba CRA Sb As Ba	Be B Cd Ca Cr (a Be Cd Cr Co C	co Cu Fe Pb u Pb Mn Mo	P Cu Fe Pb Mg Mn Mo Ni K Se Pb Mn Mo Ni Se Ag TI U	Ag Si	D2 Na Sr TI Sn U V Zn 1631/245.1/7470 /7471 :	V Zn / 7471 : Hg
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$7.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	cument and relinquis ble only for the cost ge of \$75.00 will be a	shment of samp of samples and pplied to each	ples constitutes a d shall not assum project and a cha	valid purchase orde e any responsibility : rge of \$5 for each sa	r from client company to for any losses or expen- mple submitted to Xenc	Xenco, its affiliates a ses incurred by the cli o, but not analyzed. The other is a set of the set of the set of the other is a set of the set of the set of the other is a set of the set of the set of the set of the other is a set of the set of the set of the set of the other is a set of the set of the set of the set of the other is a set of the set of the set of the set of the set of the other is a set of the set of the other is a set of the s	nd subcontractors. It as ant if such losses are du rese terms will be enforc	signs standard terms e to circumstances be ed unless previously r	and conditions yond the control regotiated.		
	signature)	Reco	Received by: (Signature)	nature)	Date/Ţime	Relinquish	shed by: (Signature)		Received by: (Signature)		Date/Time
all fill is		Max			04/20/19	PU:M					
ived \	~	1				4					
	-					6					Devised Date 051/18 Day 2010 1

Released to Imaging: 2/20/2023 1:29:37 PM

Page 95 of 130



Inter-Office Shipment

Page 1 of 1

IOS Number 41948

Date/Time: 06/20/19 16:41

Lab# From: Carlsbad

Lab# To: Midland

Created by: Carlos Castro

Delivery Priority:

Air Bill No.:

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
628550-001	S	BH01	06/17/19 14:30	E300_CL	Chloride by EPA 300	06/24/19	12/14/19	JKR	CL	
628550-001	S	BH01	06/17/19 14:30	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/01/19	JKR	GRO-DRO PHCC10C28 PH	
628550-001	S	BH01	06/17/19 14:30	SW8021B	BTEX by EPA 8021B	06/24/19	07/01/19	JKR	BR4FBZ BZ BZME EBZ X	
628550-002	S	BH01 A	06/17/19 14:35	SW8021B	BTEX by EPA 8021B	06/24/19	07/01/19	JKR	BR4FBZ BZ BZME EBZ X	
628550-002	S	BH01 A	06/17/19 14:35	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/01/19	JKR	GRO-DRO PHCC10C28 PH	
628550-002	S	BH01 A	06/17/19 14:35	E300_CL	Chloride by EPA 300	06/24/19	12/14/19	JKR	CL	
628550-003	S	BH02	06/17/19 14:40	SW8021B	BTEX by EPA 8021B	06/24/19	07/01/19	JKR	BR4FBZ BZ BZME EBZ X	
628550-003	S	BH02	06/17/19 14:40	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/01/19	JKR	GRO-DRO PHCC10C28 PH	
628550-003	S	BH02	06/17/19 14:40	E300_CL	Chloride by EPA 300	06/24/19	12/14/19	JKR	CL	
628550-004	S	BH02 A	06/17/19 14:45	SW8021B	BTEX by EPA 8021B	06/24/19	07/01/19	JKR	BR4FBZ BZ BZME EBZ X	
628550-004	S	BH02 A	06/17/19 14:45	E300_CL	Chloride by EPA 300	06/24/19	12/14/19	JKR	CL	
628550-004	S	BH02 A	06/17/19 14:45	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/01/19	JKR	GRO-DRO PHCC10C28 PH	

Inter Office Shipment or Sample Comments:

Relinquished By:

Carlos Castro

Date Relinquished: 06/20/2019

Received By:

Brianna Teel

Date Received: 06/21/2019 07:33

Cooler Temperature: 0.4



ABORATORIES

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland IOS #: 41948

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

Sent By:	Carlos Castro	Date Sent:	06/20/2019 04:41 PM
Received By:	Brianna Teel	Date Received:	06/21/2019 07:33 AM

Sample Receipt Checklist

Comments

· · ·	
#1 *Temperature of cooler(s)?	.4
#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:

Contact:

Nonconformance Documentation

Contacted by :

Date:

Checklist reviewed by: Britha Ta Brianna Teel

Date: 06/21/2019

Received by OCD: 2/20/2023 1:26:39 PM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc. Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 06/20/2019 02:30:00 PM Temperature Measuring device used : T NM 007 Work Order #: 628550 Comments Sample Receipt Checklist #1 *Temperature of cooler(s)? 3 #2 *Shipping container in good condition? Yes

	163	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	No	
#5 Custody Seals intact on sample bottles?	No	
#6*Custody Seals Signed and dated?	No	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	Yes	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Subbed to Xenco Midland
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Carlos Castro

Date: 06/20/2019

Checklist reviewed by: fession Veamer

Jessica Kramer

Date: 06/21/2019

for LT Environmental, Inc.

Project Manager: Dan Moir

BEU 74

30-JUN-19

Collected By: Client



1089 N Canal Street Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Atlanta (LELAP Lab ID #04176) Xenco-Tampa: Florida (E87429), North Carolina (483) Received by OCD: 2/20/2023 1:26:39 PM



30-JUN-19

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

Reference: XENCO Report No(s): 628554 **BEU 74** Project Address: Delaware Basin

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 628554. 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. 628554 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,

fession kenner

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 628554

LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH03	S	06-18-19 08:40	1 ft	628554-001
BH03A	S	06-18-19 08:55	4 ft	628554-002
BH04	S	06-18-19 09:05	2 ft	628554-003
BH04A	S	06-18-19 09:10	3 ft	628554-004
BH05	S	06-18-19 09:15	1 ft	628554-005
BH05A	S	06-18-19 09:25	3 ft	628554-006
BH06	S	06-18-19 09:35	2 ft	628554-007
BH06A	S	06-18-19 09:40	3 ft	628554-008



CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: BEU 74

Project ID: Work Order Number(s): 628554

ATORIES

Report Date: 30-JUN-19 Date Received: 06/20/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3093944 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





Project Id:Contact:Dan MoirProject Location:Delaware Basin

Certificate of Analysis Summary 628554

Page 103 of 130

LT Environmental, Inc., Arvada, CO

Project Name: BEU 74

Date Received in Lab:Thu Jun-20-19 02:10 pmReport Date:30-JUN-19Project Manager:Jessica Kramer

	Lab Id:	628554-0	001	628554-0	002	628554-0	003	628554-0	004	628554-005		628554-006	
	Field Id:	BH03	3	BH03/	4	BH04		BH044	4	BH05	5	BH05.	A
Analysis Requested	Depth:	1- ft		4- ft	-	2- ft		3- ft	-	1- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-18-19		Jun-18-19		Jun-18-19		Jun-18-19 09:10		Jun-18-19 09:15		Jun-18-19 09:25	
DTEV L., EDA 0041D													
BTEX by EPA 8021B SUB: T104704400-18-16	Extracted:		Jun-28-19 17:04		17:04	Jun-28-19		Jun-28-19		Jun-28-19		Jun-28-19 17:04	
SUD: 1104/04400-18-10	Analyzed:	Jun-30-19	04:30	Jun-30-19	04:53	Jun-30-19	06:39	Jun-30-19	07:02	Jun-30-19	07:25	Jun-30-19	07:49
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00200	0.00200	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Toluene		< 0.00200	0.00200	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Ethylbenzene		< 0.00200	0.00200	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
m,p-Xylenes		< 0.00401	0.00401	< 0.00402	0.00402	< 0.00402	0.00402	< 0.00399	0.00399	< 0.00400	0.00400	< 0.00398	0.00398
o-Xylene		< 0.00200	0.00200	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Total Xylenes		< 0.00200	0.00200	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Total BTEX		< 0.00200	0.00200	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Chloride by EPA 300	Extracted:	Jun-22-19 18:00		Jun-22-19 18:00		Jun-22-19 18:00 Jun-22-19 18:00		18:00	Jun-22-19 18:00		Jun-22-19 18:30		
SUB: T104704400-18-16	Analyzed:	Jun-23-19	00:05	Jun-23-19 00:10		Jun-23-19 00:14		Jun-23-19 00:19		Jun-23-19 00:24		Jun-24-19 12:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		186	4.95	98.2	5.04	47.8	5.00	201	4.97	5.95	5.05	9.93	5.05
TPH by SW8015 Mod	Extracted:	Jun-23-19	12:00	Jun-23-19	12:00	Jun-23-19	12:00	Jun-23-19	12:00	Jun-23-19	12:00	Jun-23-19	12:00
SUB: T104704400-18-16	Analyzed:	Jun-24-19	03:25	Jun-24-19	03:49	Jun-24-19	04:13	Jun-24-19	04:38	Jun-24-19	05:02	Jun-24-19	05:26
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		493	15.0	19.5	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		78.1	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		571	15.0	19.5	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total GRO-DRO		493	15.0	19.5	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

fession kramer

Jessica Kramer Project Assistant

Page 5 of 31





Project Id:Contact:Dan MoirProject Location:Delaware Basin

Certificate of Analysis Summary 628554

LT Environmental, Inc., Arvada, CO

Project Name: BEU 74

Date Received in Lab:Thu Jun-20-19 02:10 pmReport Date:30-JUN-19Project Manager:Jessica Kramer

Lab Id: 628554-007 628554-008 Field Id: BH06 BH06A Analysis Requested 2- ft 3- ft Depth: Matrix: SOIL SOIL Sampled: Jun-18-19 09:35 Jun-18-19 09:40 BTEX by EPA 8021B Jun-28-19 17:04 Extracted: Jun-28-19 17:04 SUB: T104704400-18-16 Analyzed: Jun-30-19 08:12 Jun-30-19 08:35 RL RL Units/RL: mg/kg mg/kg < 0.00201 0.00201 < 0.00200 0.00200 Benzene Toluene < 0.00201 0.00201 < 0.00200 0.00200 < 0.00201 0.00201 < 0.00200 0.00200 Ethylbenzene 0.00402 0.00401 < 0.00402 < 0.00401 m,p-Xylenes o-Xylene < 0.00201 0.00201 < 0.00200 0.00200 < 0.00201 0.00201 < 0.00200 0.00200 Total Xylenes Total BTEX < 0.00201 0.00201 < 0.00200 0.00200 Chloride by EPA 300 Extracted: Jun-22-19 18:30 Jun-22-19 18:30 SUB: T104704400-18-16 Jun-24-19 13:01 Analyzed: Jun-24-19 12:56 Units/RL: mg/kg RL mg/kg RL Chloride 104 5.00 117 4.95 TPH by SW8015 Mod Extracted: Jun-23-19 12:00 Jun-23-19 12:00 SUB: T104704400-18-16 Analyzed: Jun-24-19 06:14 Jun-24-19 06:39 Units/RL: mg/kg RL mg/kg RL Gasoline Range Hydrocarbons (GRO) <15.0 15.0 <15.0 15.0 Diesel Range Organics (DRO) 15.0 15.0 < 15.0<15.0 Motor Oil Range Hydrocarbons (MRO) 15.0 < 15.0<15.0 15.0 Total TPH < 15.015.0 <15.0 15.0 Total GRO-DRO <15.0 15.0 <15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jession VRAMER

Jessica Kramer Project Assistant

Page 6 of 31



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: I Lab Sample Id: 6	BH03 628554-001		Matrix: Date Collec	Soil ted: 06.18.19 08.40		Date Received:06.20.19 14.10 Sample Depth: 1 ft		
Tech: C Analyst: C	od: Chloride by EPA (CHE CHE 8093323	300	Date Prep:	06.22.19 18.00		Prep Method: E3 % Moisture: Basis: We SUB: T104704400	et Weight	
Parameter Chloride		Cas Number 16887-00-6	Result	RL	Units	Analysis Date	Flag	Dil
Children		10887-00-0	186	4.95	mg/kg	06.23.19 00.05		1
Analytical Metho Tech: A	od: TPH by SW8015 1 ARM ARM		180	4.95 06.23.19 12.00	mg/kg	Prep Method: TX % Moisture:	(1005P et Weight	1

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 03.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	493	15.0		mg/kg	06.24.19 03.25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	78.1	15.0		mg/kg	06.24.19 03.25		1
Total TPH	PHC635	571	15.0		mg/kg	06.24.19 03.25		1
Total GRO-DRO	PHC628	493	15.0		mg/kg	06.24.19 03.25		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	75	%	70-135	06.24.19 03.25		
o-Terphenyl		84-15-1	86	%	70-135	06.24.19 03.25		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample Id	BH03 d: 628554-001		Matrix: Date Collecte	Soil d: 06.18.19 08.40		Date Received: Sample Depth:		0
2	ethod: BTEX by EPA 802	21B				Prep Method:	SW5030B	
Tech: Analyst:	DVM FOV			06.28.19 17.04		% Moisture: Basis:	Wet Weight	
Seq Number:			Date Prep:	00.28.19 17.04		SUB: T104704	U	
Parameter		Cas Number	Result F	8L	Units	Analysis Dat	e Flag	Dil

rarameter	Cas Number	r Kesult	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.30.19 04.30	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.30.19 04.30	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.30.19 04.30	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	06.30.19 04.30	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.30.19 04.30	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.30.19 04.30	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.30.19 04.30	U	1
Surrogate		Cas Number	% Recoverv	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	94	%	70-130	06.30.19 04.30		
4-Bromofluorobenzene		460-00-4	113	%	70-130	06.30.19 04.30		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample Id	BH03A d: 628554-002		Matrix: Date Collec	Soil ted: 06.18.19 08.55		Date Received:06.2 Sample Depth: 4 ft		0
Analytical Me	ethod: Chloride by EPA	300				Prep Method: E30	00P	
Tech:	CHE					% Moisture:		
Analyst:	CHE		Date Prep:	06.22.19 18.00		Basis: We	t Weight	
Seq Number:	3093323					SUB: T104704400	-18-16	
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	98.2	5.04	mg/kg	06.23.19 00.10		1

Analytical Method: TPH by SW801 Tech: ARM Analyst: ARM Seq Number: 3093434	5 Mod	Date Prep	o: 06.23.	19 12.00	9 E	Prep Method: TX 6 Moisture: Basis: We 5UB: T104704400	t Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 03.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	19.5	15.0		mg/kg	06.24.19 03.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 03.49	U	1
Total TPH	PHC635	19.5	15.0		mg/kg	06.24.19 03.49		1
Total GRO-DRO	PHC628	19.5	15.0		mg/kg	06.24.19 03.49		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	83	%	70-135	06.24.19 03.49		
o-Terphenyl		84-15-1	87	%	70-135	06.24.19 03.49		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample Id	BH03A : 628554-002		Matrix: Date Collect	Soil ed: 06.18.19 08.55		Date Received:06.20.19 14.10 Sample Depth: 4 ft			
Analytical Met	thod: BTEX by EPA 802	21B				Prep Method:	SW5030B		
Tech:	DVM					% Moisture:			
Analyst:	FOV		Date Prep:	06.28.19 17.04		Basis:	Wet Weight		
Seq Number:	3093944					SUB: T104704	4400-18-16		
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil	

1 al ameter	Cas Number	Ktsuit	KL		Units	Analysis Date	riag	Dii
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	06.30.19 04.53	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	06.30.19 04.53	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	06.30.19 04.53	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	06.30.19 04.53	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	06.30.19 04.53	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	06.30.19 04.53	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	06.30.19 04.53	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	91	%	70-130	06.30.19 04.53		
4-Bromofluorobenzene		460-00-4	126	%	70-130	06.30.19 04.53		


LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample Id	Sample Id: BH04 Lab Sample Id: 628554-003 Analytical Method: Chloride by EPA 300			Soil cted: 06.18.19 09.05		Date Received:06.20.19 14.10 Sample Depth: 2 ft			
Analytical Me	ethod: Chloride by EPA	. 300				Prep Method: E30	0P		
Tech:	CHE					% Moisture:			
Analyst:	CHE		Date Prep:	06.22.19 18.00		Basis: Wet	Weight		
Seq Number:	3093323		-			SUB: T104704400	-18-16		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride		16887-00-6	47.8	5.00	mg/kg	06.23.19 00.14		1	

Analytical Method: TPH by SW80 Tech: ARM Analyst: ARM Seq Number: 3093434	Date Pre	p: 06.23.	19 12.00	Prep Method: TX1005P % Moisture: Basis: Wet Weight SUB: T104704400-18-16				
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 04.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 04.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 04.13	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 04.13	U	1
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 04.13	U	1
Surrogate 1-Chlorooctane o-Terphenyl		Cas Number 111-85-3 84-15-1	% Recovery 87 91	Units % %	Limits 70-135 70-135	Analysis Date 06.24.19 04.13 06.24.19 04.13	Flag	



LT Environmental, Inc., Arvada, CO

Sample Id: BH0 4 Lab Sample Id: 6285		Matrix: Date Collect	Soil ed: 06.18.19 09.05	Date Received:06.20.19 14.10 Sample Depth: 2 ft				
Analytical Method: I	3TEX by EPA 8021B			I	Prep Method: SV	V5030B		
Tech: DVM				ç	% Moisture:			
Analyst: FOV		Date Prep:	06.28.19 17.04	1	Basis: W	et Weight		
Seq Number: 30939	14			S	SUB: T10470440	0-18-16		
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	

1 al alletel	Cas Nulliber	Kesun	KL		Units	Analysis Date	riag	DII
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	06.30.19 06.39	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	06.30.19 06.39	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	06.30.19 06.39	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	06.30.19 06.39	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	06.30.19 06.39	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	06.30.19 06.39	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	06.30.19 06.39	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	118	%	70-130	06.30.19 06.39		
1,4-Difluorobenzene		540-36-3	89	%	70-130	06.30.19 06.39		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: Lab Sample Id	Sample Id: BH04A Lab Sample Id: 628554-004 Analytical Method: Chloride by EPA 300			Soil cted: 06.18.19 09.10		Date Received:06.20.19 14.10 Sample Depth: 3 ft			
Analytical Me	ethod: Chloride by EPA	300				Prep Method: E30	0P		
Tech:	CHE					% Moisture:			
Analyst:	CHE		Date Prep:	06.22.19 18.00		Basis: Wet	Weight		
Seq Number:	3093323					SUB: T104704400	-18-16		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride		16887-00-6	201	4.97	mg/kg	06.23.19 00.19		1	

Analytical Method: TPH by SW80 Tech: ARM	15 Mod					Prep Method: TX1005P % Moisture:			
Analyst: ARM		Date Prep	. 06.23.	19 12.00	E	Basis: We	t Weight		
Seq Number: 3093434			-			SUB: T104704400)-18-16		
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	06.24.19 04.38	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9		mg/kg	06.24.19 04.38	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9		mg/kg	06.24.19 04.38	U	1	
Total TPH	PHC635	<14.9	14.9		mg/kg	06.24.19 04.38	U	1	
Total GRO-DRO	PHC628	<14.9	14.9		mg/kg	06.24.19 04.38	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	86	%	70-135	06.24.19 04.38			
o-Terphenyl		84-15-1	88	%	70-135	06.24.19 04.38			



LT Environmental, Inc., Arvada, CO

Sample Id: BH04A Lab Sample Id: 628554-004		Matrix: Date Collecte	Soil d: 06.18.19 09.10	Date Received:06.20.19 1- Sample Depth: 3 ft			0
Analytical Method: BTEX by EPA 8	021B				Prep Method:	SW5030B	
Tech: DVM Analyst: FOV		Date Prep:	06.28.19 17.04		% Moisture: Basis:	Wet Weight	
Seq Number: 3093944		Dute Hep.			SUB: T104704	0	
Parameter	Cas Number	Result R	L	Units	Analysis Da	te Flag	Dil

	Cas Number	Kesun	KL		Units	Analysis Date	riag	DII
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.30.19 07.02	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.30.19 07.02	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.30.19 07.02	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	06.30.19 07.02	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.30.19 07.02	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.30.19 07.02	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.30.19 07.02	U	1
-			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	91	%	70-130	06.30.19 07.02		
4-Bromofluorobenzene		460-00-4	118	%	70-130	06.30.19 07.02		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: I Lab Sample Id: 6	BH05 628554-005		Matrix: Date Collec	Soil cted: 06.18.19 09.15	Date Received:06.20.19 14.10 Sample Depth: 1 ft)
Analytical Metho	od: Chloride by EPA 3	300				Prep Method: E3	00P	
Tech: C	CHE					% Moisture:		
Analyst: C	CHE		Date Prep:	06.22.19 18.00		Basis: We	et Weight	
Seq Number: 3	093323					SUB: T10470440	0-18-16	
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	5.95	5.05	mg/kg	06.23.19 00.24		1

Analytical Method: TPH by SW801 Tech: ARM Analyst: ARM Seq Number: 3093434	5 Mod Date Prep: 06.23.19 12.00					Prep Method: TX1005P % Moisture: Basis: Wet Weight SUB: T104704400-18-16			
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 05.02	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 05.02	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 05.02	U	1	
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 05.02	U	1	
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 05.02	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	85	%	70-135	06.24.19 05.02			
o-Terphenyl		84-15-1	87	%	70-135	06.24.19 05.02			



LT Environmental, Inc., Arvada, CO

Sample Id: Lab Sample Id	BH05 d: 628554-005		Matrix: Date Collecte	Soil ed: 06.18.19 09.15		Date Received: Sample Depth:)
Analytical Me	ethod: BTEX by EPA 802	21B				Prep Method:	SW5030B	
Tech:	DVM					% Moisture:		
Analyst:	FOV		Date Prep:	06.28.19 17.04		Basis:	Wet Weight	
Seq Number:	3093944					SUB: T104704	400-18-16	
Parameter		Cas Number	Result I	RL	Units	Analysis Dat	e Flag	Dil

	Cas Nulliber	Kesuit	KL		Units	Analysis Date	riag	DII
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.30.19 07.25	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.30.19 07.25	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.30.19 07.25	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	06.30.19 07.25	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.30.19 07.25	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.30.19 07.25	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.30.19 07.25	U	1
		~	%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	90	%	70-130	06.30.19 07.25		
4-Bromofluorobenzene		460-00-4	121	%	70-130	06.30.19 07.25		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id: BH05A Lab Sample Id: 628554-006		Matrix: Date Collec	Soil cted: 06.18.19 09.25		Date Received:06. Sample Depth: 3 f		0
Analytical Method: Chloride by EF	PA 300				Prep Method: E3	00P	
Tech: CHE					% Moisture:		
Analyst: CHE		Date Prep:	06.22.19 18.30		Basis: We	et Weight	
Seq Number: 3093326					SUB: T10470440	0-18-16	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.93	5.05	mg/kg	06.24.19 12.39		1

Analytical Method: TPH by SW801Tech:ARMAnalyst:ARMSeq Number:3093434	5 Mod	Date Pre	Date Prep: 06.23.19 12.00			Prep Method: TX1005P % Moisture: Basis: Wet Weight SUB: T104704400-18-16			
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 05.26	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 05.26	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 05.26	U	1	
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 05.26	U	1	
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 05.26	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	89	%	70-135	06.24.19 05.26			
o-Terphenyl		84-15-1	102	%	70-135	06.24.19 05.26			



LT Environmental, Inc., Arvada, CO

Sample Id: BH05A Lab Sample Id: 628554-006		Matrix: Date Collecte	Soil ed: 06.18.19 09.25		Date Received Sample Depth:		0
Analytical Method: BTEX by EPA 80	021B				Prep Method:	SW5030B	
Tech: DVM					% Moisture:		
Analyst: FOV		Date Prep:	06.28.19 17.04		Basis:	Wet Weight	
Seq Number: 3093944					SUB: T104704	4400-18-16	
Parameter	Cas Number	Result I	RL	Units	Analysis Da	te Flag	Dil

	Cas Number	Kesun	KL		Units	Analysis Date	riag	DII
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	06.30.19 07.49	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	06.30.19 07.49	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	06.30.19 07.49	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	06.30.19 07.49	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	06.30.19 07.49	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	06.30.19 07.49	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	06.30.19 07.49	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	113	%	70-130	06.30.19 07.49		
1,4-Difluorobenzene		540-36-3	93	%	70-130	06.30.19 07.49		



LT Environmental, Inc., Arvada, CO

BEU 74

Sample Id:BH06Lab Sample Id:628554-007	Matrix: Date Colle	Soil cted: 06.18.19 09.35	Date Received:06.20.19 14.10 Sample Depth: 2 ft			
Analytical Method: Chloride by EPA 300 Tech: CHE				Prep Method: E30 % Moisture:)0P	
Analyst: CHE	Date Prep:	06.22.19 18.30		Basis: We	t Weight	
Seq Number: 3093326				SUB: T104704400)-18-16	
Parameter Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride 16887-00-6	104	5.00	mg/kg	06.24.19 12.56		1

Analytical Method: TPH by SW801 Tech: ARM Analyst: ARM Seq Number: 3093434	5 Mod	Date Pre	Date Prep: 06.23.19 12.00			Prep Method: TX1005P % Moisture: Basis: Wet Weight SUB: T104704400-18-16			
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 06.14	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 06.14	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 06.14	U	1	
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 06.14	U	1	
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 06.14	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	83	%	70-135	06.24.19 06.14			
o-Terphenyl		84-15-1	80	%	70-135	06.24.19 06.14			



LT Environmental, Inc., Arvada, CO

Sample Id: BH0 Lab Sample Id: 6285		Matrix: Date Collect	Soil ed: 06.18.19 09.35		Date Received:0 Sample Depth: 2)
Analytical Method:	BTEX by EPA 8021B]	Prep Method: S	W5030B	
Tech: DVM	L				% Moisture:		
Analyst: FOV		Date Prep:	06.28.19 17.04]	Basis: V	Vet Weight	
Seq Number: 3093	944			:	SUB: T1047044	00-18-16	
Parameter	Cas Number	Result]	RL	Units	Analysis Date	Flag	Dil

1 ar anicter	Cas Number	Ktsuit	KL		Units	Analysis Date	riag	Dii
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	06.30.19 08.12	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	06.30.19 08.12	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	06.30.19 08.12	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	06.30.19 08.12	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	06.30.19 08.12	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	06.30.19 08.12	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	06.30.19 08.12	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	114	%	70-130	06.30.19 08.12		
1,4-Difluorobenzene		540-36-3	91	%	70-130	06.30.19 08.12		



LT Environmental, Inc., Arvada, CO

Sample Id: BH06A Lab Sample Id: 628554-008		Matrix: Soil Date Collected: 06.18.19 09.40			Date Received:06.20.19 14.10 Sample Depth: 3 ft			
Analytical Method: Chloride by EPA 30	0				Prep Method: E30)0P		
Tech: CHE					% Moisture:			
Analyst: CHE		Date Prep:	06.22.19 18.30		Basis: We	t Weight		
Seq Number: 3093326		•			SUB: T104704400	-18-16		
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride 1	6887-00-6	117	4.95	mg/kg	06.24.19 13.01		1	

Analytical Method: TPH by SW801 Tech: ARM Analyst: ARM Seq Number: 3093434	5 Mod	Date Pre	Date Prep: 06.23.19 12.00			Prep Method: TX1005P % Moisture: Basis: Wet Weight SUB: T104704400-18-16			
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	06.24.19 06.39	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	06.24.19 06.39	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	06.24.19 06.39	U	1	
Total TPH	PHC635	<15.0	15.0		mg/kg	06.24.19 06.39	U	1	
Total GRO-DRO	PHC628	<15.0	15.0		mg/kg	06.24.19 06.39	U	1	
Surrogate 1-Chlorooctane o-Terphenyl		Cas Number 111-85-3 84-15-1	% Recovery 85 90	Units % %	Limits 70-135 70-135	Analysis Date 06.24.19 06.39 06.24.19 06.39	Flag		



LT Environmental, Inc., Arvada, CO

Sample Id: BH06A Lab Sample Id: 628554-008		Matrix: Date Collecte	Soil d: 06.18.19 09.40		Date Received:00 Sample Depth: 3)
Analytical Method: BTEX by EPA 8 Tech: DVM	021B				Prep Method: S' % Moisture:	W5030B	
Analyst: FOV		Date Prep:	06.28.19 17.04			Vet Weight	
Seq Number: 3093944					SUB: T10470440	00-18-16	
Parameter	Cas Number	Result F	RL	Units	Analysis Date	Flag	Dil

rarameter	Cas Number	Kesuit	KL		Units	Analysis Date	Flag	DII
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	06.30.19 08.35	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	06.30.19 08.35	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	06.30.19 08.35	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	06.30.19 08.35	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	06.30.19 08.35	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	06.30.19 08.35	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	06.30.19 08.35	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	116	%	70-130	06.30.19 08.35		
1,4-Difluorobenzene		540-36-3	91	%	70-130	06.30.19 08.35		



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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	ent Sample	BLK	Method Blank	
BKS/LCS	S Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labo	ratory 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 628554

LT Environmental, Inc.

BEU 74

Analytical Method: Seq Number: MB Sample Id:	Chloride by EPA 3 3093323 7680537-1-BLK	00	LCS Sat	Matrix: nple Id:		1-BKS			rep Methe Date Pr D Sample	ep: 06.2		
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	<5.00	250	237	95	236	94	90-110	0	20	mg/kg	06.22.19 22:04	
Analytical Method: Seq Number: MB Sample Id:	3093326 7680538-1-BLK		LCS Sa	•	Solid 7680538-	1-BKS		LCS	•	ep: 06.2 e Id: 7680		
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	< 5.00	250	254	102	254	102	90-110	0	20	mg/kg	06.24.19 12:28	

Analytical Method:	Chloride by EPA 30)0						Pi	rep Meth	od: E30	0P	
Seq Number:	3093323			Matrix:	Soil				Date Pr	ep: 06.2	2.19	
Parent Sample Id:	628585-012		MS Sar	nple Id:	628585-0	12 S		MS	D Sample	e Id: 628	585-012 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	761	250	930	68	931	68	90-110	0	20	mg/kg	06.22.19 22:18	Х

Analytical Method:	Chloride by EPA 30	00						Pı	ep Metho	od: E30	OP	
Seq Number:	3093323			Matrix:	Soil				Date Pr	ep: 06.2	22.19	
Parent Sample Id:	628586-006		MS Sar	nple Id:	628586-00)6 S		MS	D Sample	e Id: 628	586-006 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	33.8	248	272	96	272	96	90-110	0	20	mg/kg	06.22.19 23:26	

Analytical Method:	Chloride by EPA 30	00						Pr	ep Metho	od: E30	0P	
Seq Number:	3093326			Matrix:	Soil				Date Pro	ep: 06.2	22.19	
Parent Sample Id:	628554-006		MS Sar	nple Id:	628554-00)6 S		MS	D Sample	e Id: 628	554-006 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	9.93	253	263	100	262	100	90-110	0	20	mg/kg	06.24.19 12:44	

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

[D] = 100*(C-A) / B $\begin{aligned} \text{RPD} &= 200^* \mid (\text{C-E}) / (\text{C+E}) \mid \\ \text{[D]} &= 100^* (\text{C}) / \text{[B]} \end{aligned}$ Log Diff. = Log(Sample Duplicate) - Log(Original Sample) LCS = Laboratory Control SampleA = Parent Result C = MS/LCS Result E = MSD/LCSD Result

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Received by OCD: 2/20/2023 1:26:39 PM



QC Summary 628554

LT Environmental, Inc.

BEU 74

Analytical Method:	TPH by S	W8015 M	od							Prep Method	l: TX1	005P	
Seq Number:	3093434				Matrix:	Solid				Date Prep	b: 06.2	3.19	
MB Sample Id:	7680671-1	-BLK		LCS Sar	nple Id:	7680671-	1-BKS		LC	SD Sample l	ld: 768	0671-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP	D RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	oons (GRO)	9.45	1000	906	91	931	93	70-135	3	20	mg/kg	06.24.19 00:12	
Diesel Range Organics	(DRO)	8.62	1000	1020	102	1030	103	70-135	1	20	mg/kg	06.24.19 00:12	
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			Limits	Units	Analysis Date	
1-Chlorooctane		97			77		72			70-135	%	06.24.19 00:12	
o-Terphenyl		106		9	90		92			70-135	%	06.24.19 00:12	

Analytical Method: Seq Number: Parent Sample Id:	TPH by S 3093434 628550-00		od		Matrix:	Soil 628550-00)1 S			Prep Method Date Prep SD Sample 1	p: 06.2		
Parameter	020550-00	Parent Result	Spike Amount	MS MS Result	MS %Rec	MSD Result	MSD %Rec	Limits		D RPD Limit		Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	10.9	998	966	96	952	94	70-135	1	20	mg/kg	06.24.19 01:24	
Diesel Range Organics	(DRO)	9.40	998	996	99	1000	99	70-135	0	20	mg/kg	06.24.19 01:24	
Surrogate					AS Rec	MS Flag	MSD %Re			Limits	Units	Analysis Date	
1-Chlorooctane				-	77		82			70-135	%	06.24.19 01:24	
o-Terphenyl				9	95		91			70-135	%	06.24.19 01:24	

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 802 3093944 7681016-1-BLK	1B	LCS Sar	Matrix: nple Id:		1-BKS			Prep Metho Date Pre SD Sample	ep: 06.2	5030B 8.19 1016-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI) RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00199	0.0996	0.0718	72	0.0759	76	70-130	6	35	mg/kg	06.29.19 22:59	
Toluene	< 0.00199	0.0996	0.0826	83	0.0855	86	70-130	3	35	mg/kg	06.29.19 22:59	
Ethylbenzene	0.000569	0.0996	0.0900	90	0.0945	95	70-130	5	35	mg/kg	06.29.19 22:59	
m,p-Xylenes	< 0.00101	0.199	0.175	88	0.184	92	70-130	5	35	mg/kg	06.29.19 22:59	
o-Xylene	< 0.00199	0.0996	0.0861	86	0.0897	90	70-130	4	35	mg/kg	06.29.19 22:59	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSE %Rec			Limits	Units	Analysis Date	
1,4-Difluorobenzene	84		ç	9 1		92			70-130	%	06.29.19 22:59	
4-Bromofluorobenzene	114		1	04		104			70-130	%	06.29.19 22:59	

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 628554

LT Environmental, Inc.

BEU 74

Analytical Method	BTEX by EPA 8021B	
Analytical Methou:	DIEA UY EFA 0021D	

Analytical Method: Seq Number: Parent Sample Id:	BTEX by EPA 802 3093944 629132-001	1B] MS San	Matrix:		01 \$			Prep Methoo Date Prep SD Sample 1	p: 06.2	5030B 8.19 132-001 SD	
Parameter	Parent Result	Spike Amount	MS MS Result	MS %Rec	MSD Result	MSD %Rec	Limits		O RPD Limit		Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0174	17	0.0189	19	70-130	8	35	mg/kg	06.29.19 23:46	Х
Toluene	< 0.00200	0.100	0.0266	27	0.0283	28	70-130	6	35	mg/kg	06.29.19 23:46	Х
Ethylbenzene	< 0.00200	0.100	0.0703	70	0.0661	65	70-130	6	35	mg/kg	06.29.19 23:46	Х
m,p-Xylenes	< 0.00401	0.200	0.0971	49	0.0985	49	70-130	1	35	mg/kg	06.29.19 23:46	Х
o-Xylene	< 0.00200	0.100	0.0516	52	0.0521	52	70-130	1	35	mg/kg	06.29.19 23:46	Х
Surrogate				IS Rec	MS Flag	MSD %Rec			Limits	Units	Analysis Date	
1,4-Difluorobenzene			9	2		92			70-130	%	06.29.19 23:46	
4-Bromofluorobenzene			1	13		114			70-130	%	06.29.19 23:46	

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Released to Imaging: 2/20/2023 1:29:37 PM

Final 1.000

Page 125 of 130



Inter-Office Shipment

Page 1 of 2

IOS Number 41947

Date/Time: 06/20/19 16:38

Lab# From: Carlsbad

Created by: Carlos Castro

Delivery Priority:

Lab# To: Midland

Air Bill No.:

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
628554-001	S	BH03	06/18/19 08:40	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	
628554-001	S	BH03	06/18/19 08:40	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-001	S	BH03	06/18/19 08:40	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-002	S	BH03A	06/18/19 08:55	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	
628554-002	S	BH03A	06/18/19 08:55	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-002	S	BH03A	06/18/19 08:55	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-003	S	BH04	06/18/19 09:05	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-003	S	BH04	06/18/19 09:05	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	
628554-003	S	BH04	06/18/19 09:05	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-004	S	BH04A	06/18/19 09:10	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-004	S	BH04A	06/18/19 09:10	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	
628554-004	S	BH04A	06/18/19 09:10	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-005	S	BH05	06/18/19 09:15	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-005	S	BH05	06/18/19 09:15	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	
628554-005	S	BH05	06/18/19 09:15	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-006	S	BH05A	06/18/19 09:25	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	
628554-006	S	BH05A	06/18/19 09:25	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-006	S	BH05A	06/18/19 09:25	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-007	S	BH06	06/18/19 09:35	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-007	S	BH06	06/18/19 09:35	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-007	S	BH06	06/18/19 09:35	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	
628554-008	S	BH06A	06/18/19 09:40	SW8021B	BTEX by EPA 8021B	06/24/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ X	
628554-008	S	BH06A	06/18/19 09:40	E300_CL	Chloride by EPA 300	06/24/19	12/15/19	JKR	CL	
628554-008	S	BH06A	06/18/19 09:40	SW8015MOD_NM	TPH by SW8015 Mod	06/24/19	07/02/19	JKR	GRO-DRO PHCC10C28 PH	



Inter-Office Shipment

Page 2 of 2

IOS Number 41947

Date/Time: 06/20/19 16:38

Created by: Carlos Castro

Lab# From: Carlsbad

Lab# To: Midland

Delivery Priority: Air Bill No.:

Inter Office Shipment or Sample Comments:

Relinquished By:

Carlos Castro

Date Relinquished: 06/20/2019

asuo

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

Received By:

Brianna Teel

Date Received: <u>06/21/2019 07:33</u>

Cooler Temperature: 0.4



ABORATORIES

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland IOS #: 41947

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

Sent By:	Carlos Castro	Date Sent:	06/20/2019 04:38 PM
Received By:	Brianna Teel	Date Received:	06/21/2019 07:33 AM

Sample Receipt Checklist

Comments

· · ·	
#1 *Temperature of cooler(s)?	.4
#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:

Contact:

Nonconformance Documentation

Contacted by :

Date:

Checklist reviewed by: Britha Ta Brianna Teel

Date: 06/21/2019

Received by OCD: 2/20/2023 1:26:39 PM



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc. Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 06/20/2019 02:10:00 PM Temperature Measuring device used : T-NM 007 Work Order #: 628554 Sample Receipt Checklist

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Date: 06/20/2019

Comments

Checklist reviewed by: Jession Veamer

Jessica Kramer

Date: 06/21/2019

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
XTO PERMIAN OPERATING LLC.	373075
6401 HOLIDAY HILL ROAD	Action Number:
MIDLAND, TX 79707	188254
	Action Type:
	[IM-SD] Incident File Support Doc (ENG) (IM-ANF)

CONDITIONS

Created By	Condition	Condition Date
bhall	The areas of SW03 and BH03 will need to meet the requirements of 19.15.29.13 NMAC at during facility retrofit or plugging and abandonment, which ever comes first.	2/20/2023

Action 188254