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	NRM2015454866
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

				OGRID 4	OGRID 5380			
Contact Nam	e Kyle Lit	trell		Contact Te	Contact Telephone 432-221-7331			
Contact emai	Tty IC_DI	trell@xtoenergy.co			Incident # (assigned by OCD)			
Contact mail	ing address	522 W. Mermod,	Carlsbad, NM 88	220				
				of Release So				
22.1	2424		Location					
Latitude 32.1	2424		OLAD P2 in da	Longitude _	-103.89604			
			(NAD 83 In dec					
	ierce Canyo			Site Type T	ank Battery			
Date Release	Discovered	5-17-2020		API# (if app	licable)			
Unit Letter	Section	Township	Range	Coun	ty			
P	17	258	30E	Edd	y			
Surface Owner		Federal Tri	Nature and	Volume of I		lumes provided below)		
Crude Oil		Volume Release			Volume Recover			
× Produced	Water	Volume Released	d (bbls) 35		Volume Recovered (bbls) 35			
			ion of total dissolv water >10,000 mg		☐ Yes ☐ No			
Condensa	te	Volume Released			Volume Recover	red (bbls)		
☐ Natural G	as	Volume Released	d (Mcf)		Volume Recovered (Mcf)			
Other (des	Other (describe) Volume/Weight Released (provide units) Volume/Weight Recovered (provide units)							
Cause of Rele	33 DDI 1	anks overflowed the PW from inside important to has been retained.	permeable contair	iment. Liner inspec	PC 17 TB. A vac ction determined th	c truck was dispatched and recovered ne liner was insufficient. A third-party		

Form C-141 Page 2

State of New Mexico Oil Conservation Division

Incident ID	NR M2015454866
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the respon	sible party consider this a major release?
release as defined by	Release was over 25 barrels	
19.15.29.7(A) NMAC?		
🗴 Yes 🗌 No		
If YES, was immediate no	tice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
	te Bratcher; Rob Hamlet; Victoria Venegas;	
	EMNRD' via email on Monday, May 18, 20	
	Initial Ro	esponse
The responsible p	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
➤ The source of the rele	ease has been stopped.	
	is been secured to protect human health and	the environment.
	·	ikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and	1
If all the actions described	d above have <u>not</u> been undertaken, explain	why:
N/A		
Der 10 15 20 9 D (4) NIM	(AC the responsible party may commence r	emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred
		lease attach all information needed for closure evaluation.
I hereby certify that the info	rmation 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 noti	fications and perform corrective actions for releases which may endanger
		CD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of		responsibility for compliance with any other federal, state, or local laws
and/or regulations.		
Printed Name: Kyle Littr	ell	Title: SH&E Supervisor
Signature	tail	5-29-20 Date:
1111	penergy.com	432-221-7331
email:		Telephone:
OCD Only		
Received by: Ramo	ona Marcus	Date: 6/2/2020
	-	

NRM2015454866

Location:	Pierce Canyon 17 TB		
Spill Date:	5/17/2020		
	Area 1		
Approximate Ai	ea =	196.51	cu. ft.
	VOLUME RECOVERED		
Total Produced	Water =	35.00	bbls

TOTAL VOLUME OF LEAK						
Total Produced Water =	35.00 bbls					
TOTAL VOLUME RECOVERED						
Total Produced Water =	35.00 bbls					

Received by OCD: 8/10/2020 10:08:08 AM Form C-141 State of New Mexico Oil Conservation Division Page 3

NRM2015454866

Incident ID District RP Facility ID Application ID

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☑ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
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 well Field data	ls.
Data table of soil contaminant concentration data	
Depth to water determination Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release	
Boring or excavation logs	
 ✓ Photographs including date and GIS information ✓ Topographic/Aerial maps 	
☐ Laboratory data including chain of custody	

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

Received by OCD: 8/10/2020 10:08:08 4M Form C-141 State of New Mexico Page 4 Oil Conservation Division

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Incident ID	NRM2015454866
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.							
Printed Name: Kyle Littrell	Title: SH&E Supervisor						
Signature:	Date:						
email: Kyle_Littrell@xtoenery.com	Telephone: 432-221-7331						
OCD Only							
Received by:	Date:						

Page 6 of 152

Incident ID NRM2015454866

District RP
Facility ID
Application ID

Remediation Plan

Remediation Plan Checklist: Each of the following items must be	e included in the plan.
 □ Detailed description of proposed remediation technique □ Scaled sitemap with GPS coordinates showing delineation point □ Estimated volume of material to be remediated □ Closure criteria is to Table 1 specifications subject to 19.15.29.1 □ Proposed schedule for remediation (note if remediation plan times) 	2(C)(4) NMAC
<u>Deferral Requests Only</u> : Each of the following items must be con-	firmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file c which may endanger public health or the environment. The acceptantiability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local lates.	ertain release notifications and perform corrective actions for releases nee of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature:	Date:
email: Kyle_Littrell@xtoenery.com	Telephone: 432-221-7331
OCD Only	
Received by:	Date:
☐ Approved	Approval
Signature:	Date:



LT Environmental, Inc.

3300 North "A" Street Building 1, Unit 222 Midland, Texas 79705 432.704.5178

August 5, 2020

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

RE: Deferral Request
Pierce Canyon 17 TB
Incident Number NRM2015454866
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and remediation activities at the Pierce Canyon 17 TB (Site) in Unit P, Section 17, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impact to soil resulting from an unauthorized release of produced water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Deferral Request and requesting no further action (NFA) for Incident Number NRM2015454866.

RELEASE BACKGROUND

On May 17, 2020, a water tank overflowed through the top of the thief hatches, resulting in the release of approximately 35 barrels (bbls) of produced water into the lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 35 bbls of produced were recovered. A liner integrity inspection was immediately conducted by XTO personnel following the recovery. A 48-hour advance notice of liner inspection was provided via email to the NMOCD District II office and upon inspection, the liner was determined to be compromised. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on May 18, 2020 and submitted a Form C-141 on May 29, 2020 that was subsequently assigned Incident Number NRM2015454866.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data and regional depth to water determination. The closest permitted groundwater well with depth to groundwater data is

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Bratcher, M. Page 2

United States Geologic Survey (USGS) well 320628103533001, located approximately 1.1 miles south of the Site. The water well has an approved reported depth to groundwater from 1998 of 265 feet bgs and a total depth of 288 feet bgs. Within a 3.63 mile radius from the Site, there are five additional water wells that indicate regional depth to groundwater is greater than 100 feet bgs at the Site location. All water wells used for depth to groundwater determination are depicted on Figure 1 and are referenced in in Attachment 1. Of these water wells, data from USGS well 320849103533902 was utilized for the depth to groundwater determination for Incident Number NAB1914836701 (Poker Lake Unit Pierce Canyon 17 SWD #1) and was approximately 0.96 miles from the Site. Incident Number NAB1914836701 was approved by the NMOCD on July 29, 2019. New Mexico Office of the State Engineer (NMOSE) well C-03782 was most recently drilled in January 2015. NMOSE well C-03782 is located 2 miles south of the Site and has a reported depth to water of 277 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an intermittent stream, located approximately 0.61 miles 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 100year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On June 2, 2020, LTE personnel visited the Site to evaluate the release extent. LTE personnel advanced one borehole (BH01) via hand-auger within the breached area identified by XTO during the liner inspection. Due to auger refusal, XTO authorized LTE to perform a liner incision approximately 2 feet from the tear to advance an additional borehole (BH02). Two soil samples were collected from the area associated with soil sample BH01 at approximately 0.5 foot bgs and 2 feet bgs and one in the area associated with soil sample BH02 at approximately 0.5 foot bgs. Soil from the boreholes were field screened for volatile aromatic hydrocarbons and chloride

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Bratcher, M. Page 3

utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each sample were documented on a lithologic/soil sampling log and are included as Attachment 2. The boreholes were backfilled with the soil removed and XTO personnel repaired the liner. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation was conducted during the Site visit and are included in Attachment 3.

DELINEATION SOIL SAMPLING ACTIVITIES

On June 16, 2020 and June 17, 2020, LTE conducted additional delineation activities to further assess hydrocarbon impacts discovered in the subject release area as indicated by delineation soil sample laboratory results. Due to auger refusal encountered at 2 feet bgs and 0.5 foot bgs in locations associated with soil samples BH01 and BH02, respectively, LTE utilized a hammer drill to advance a third borehole inside the containment. For safety concerns and in compliance with a hot work permit, borehole BH03 was advanced in an area representative of the release footprint, but in less proximity to active aboveground equipment. The hammer drill was able to achieve a depth of approximately 3 feet bgs, reaching the maximum bit length.

Utilizing heavy equipment, six potholes (PH01 through PH06) were advanced outside of the containment to investigate lithology and confirm lateral delineation. Field screening was conducted for all delineation soil samples, at minimum, from every 1-foot interval for volatile aromatic hydrocarbons using a PID and chloride using Hach® chloride QuanTab® test strips. Three samples were collected from each pothole, including: the most impacted sample based on field screening results and the terminus of the pothole. Soil samples were collected, handled as previously described. Field screening results and observations for each borehole and pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The locations of delineation boreholes and potholes are presented on Figure 2. Photographic documentation was conducted during remediation activities at the Site and is included in Attachment 3.

ANALYTICAL RESULTS

Per the Closure Criteria, soil samples BH01 through BH03 exceeded Closure Criteria for BTEX to at least 2 feet bgs, and TPH to at least 3 feet bgs. Benzene and chloride concentrations were below Closure Criteria. All constituents for soil samples collected from PH01 through PH06 were within the applicable Closure Criteria limits. Laboratory analytical results are summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.



Bratcher, M. Page 4

IN-SITU REMEDIATION

To aid in the bioremediation of hydrocarbons, a water truck was retained to lubricate and inject approximately 67 gallons of a 6 percent (%) dilution of Micro-Blaze[™] amendment and freshwater beneath the steel containment liner until fluids were forced back to the injection source. The freshwater source was field screened prior to use and contained 215 mg/kg of chloride.

DEFERRAL REQUEST

Due to the presence of active production equipment within the release area and underlying bedrock, alternative methods to investigate vertical impacts and excavate impacted soil utilizing mechanical, manual, or non-destructive methods could not be conducted safely at this time. Therefore, XTO requests permission to continue the remediation of the discovered hydrocarbon impacts directly beneath the lined steel berm during any future major construction, final facility abandonment, or when the structure is removed, whichever occurs first. Although the vertical extent has not been established, the lateral extent is defined by samples collected from potholes surrounding the containment. Based on decreasing concentrations of BTEX and TPH with depth in BH03 and application of Micro-Blaze[™] under the liner, LTE assumes that vertical impacts do not exceed 5 feet bgs and estimates the volume of remaining impacts to be approximately 796 cubic yards. In addition to XTO's regular inspections associated with its Spill Prevention, Control, and Countermeasure (SPCC) Program, XTO will periodically monitor the repaired liner associated with the subject area to ensure integrity and limit potential vertical migration of any remaining impacts. LTE and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The remaining impacts are beneath a liner and groundwater is greater than 100 feet deep. As a result, XTO is submitting this Deferral Request and requesting NFA for Incident Number NRM2015454866 until the Site is reconstructed, and/or the well pad is abandoned.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Joseph S. Hernandez Project Geologist Ashley L. Ager, M.S., P.G.

Senior Geologist

ashley L. ager



Bratcher, M. Page 5

cc: Kyle Littrell, XTO

United States Bureau of Land Management - New Mexico

Robert Hamlet, NMOCD Victoria Venegas, NMOCD

Attachments:

Figure 1 Site Location Map

Figure 2 Delineation Soil Sample Locations

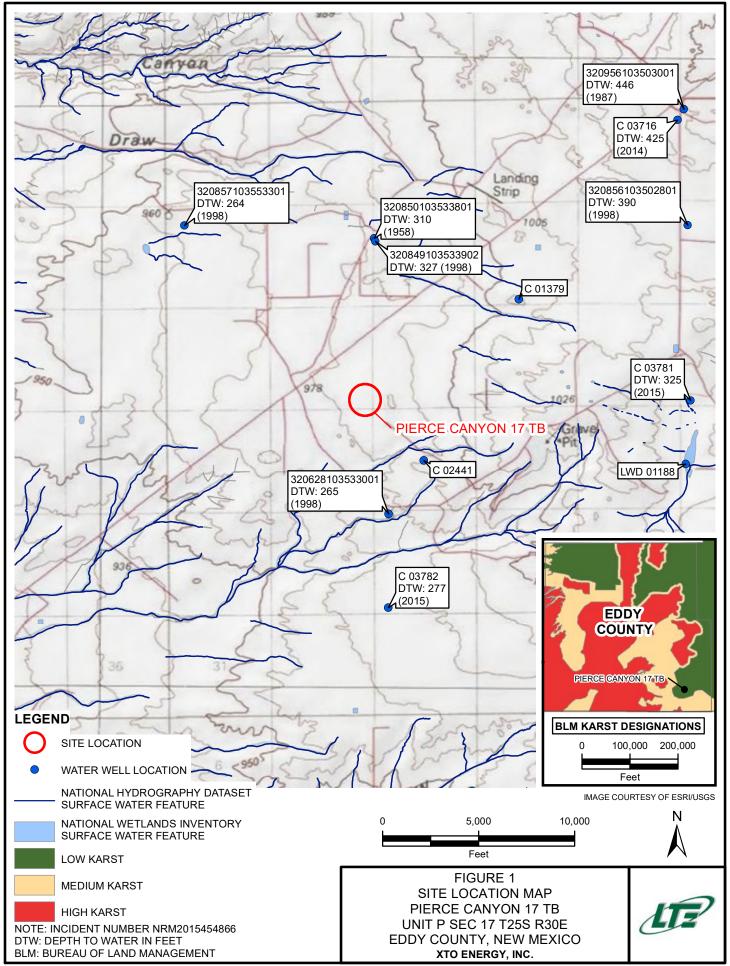
Figure 3 Deferral Area

Table 1 Soil Analytical Results
Attachment 1 Referenced Well Records
Attachment 2 Lithologic/Soil Sampling Logs

Attachment 3 Photographic Log

Attachment 4 Laboratory Analytical Reports





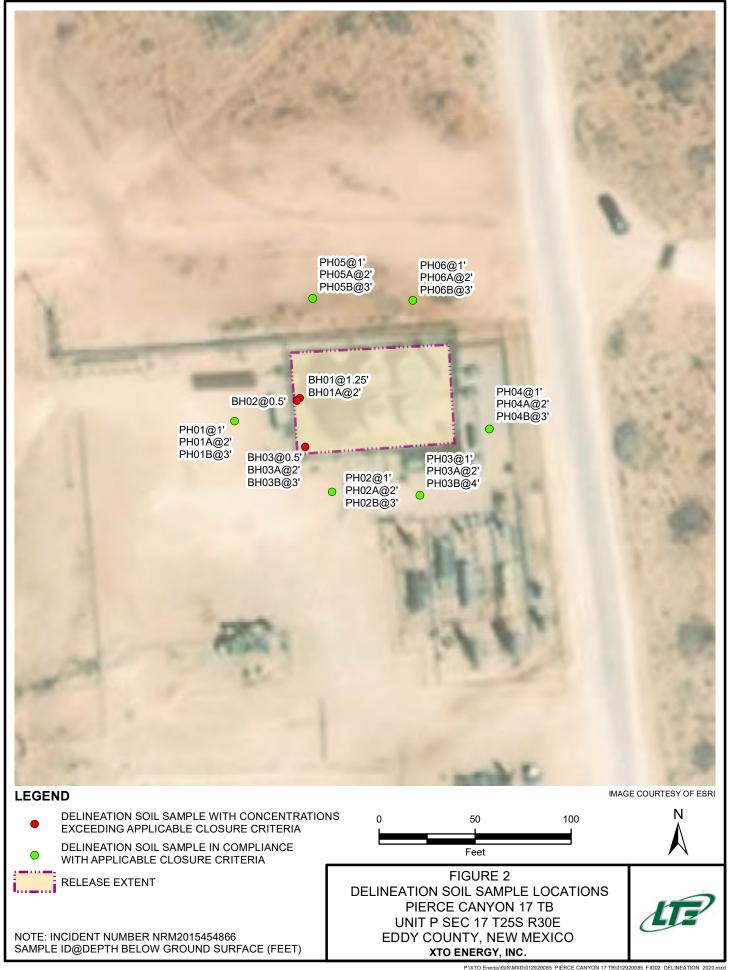






TABLE 1 SOIL ANALYTICAL RESULTS

PIERCE CANYON 17 TB INCIDENT NUMBER NRM2015454866 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)	Application
NMOCD Table	e 1 Closure Crit	eria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000	
BH01	1.25	06/02/2020	<0.0970	43.2	24.2	487	555	5,800	11,400	513	17,200	17,700	149	Treated
BH01A	2	06/02/2020	<0.241	45.9	22.1	292	360	11,200	19,900	924	31,100	32,000	286	Treated
BH02	0.5	06/02/2020	<0.101	37.8	17.7	287	342	3,180	7,150	368	10,300	10,700	126	Treated
BH03	0.5	07/16/2020	<0.0998	0.467	1.25	14.2	15.9	901	6,600	417	7,500	7,920	126	Treated
вноза	2	07/16/2020	<0.0996	3.00	5.98	71.8	80.8	1,200	6,880	434	8,080	8,510	467	Treated
внозв	3	07/17/2020	<0.00500	0.441	0.432	7.91	8.78	571	4,250	228	4,820	5,050	462	Treated
PH01	1	07/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	478	In-situ
PH01A	2	07/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,420	In-situ
PH01B	3	07/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	318	In-situ
PH02	1	07/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	67.3	In-situ
PH02A	2	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	156	In-situ
PH02B	3	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	177	In-situ
PH03	1	07/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	122	In-situ
PH03A	2	07/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	374	In-situ
PH03B	4	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	519	In-situ
PH04	1	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	26.1	In-situ
PH04A	2	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	27.0	In-situ
PH04B	3	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	32.3	In-situ
PH05	1	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	12.1	In-situ
PH05A	2	07/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	28.8	In-situ
PH05B	3	07/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	47.4	In-situ



TABLE 1 SOIL ANALYTICAL RESULTS

PIERCE CANYON 17 TB INCIDENT NUMBER NRM2015454866 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)	Application
NMOCD Table	1 Closure Crit	eria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000	
PH06	1	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	14.5	In-situ
PH06A	2	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	50.3	In-situ
PH06B	3	07/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	37.9	In-situ

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

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







National Water Information System: Web Interface

USGS Water Resources

USGS Home Contact USGS Search USGS

Data Category: Geographic Area:
Groundwater V United States V GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs site_no list =

• 320628103533001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320628103533001 25S.30E.21.333424

Eddy County, New Mexico

Latitude 32°06'28", Longitude 103°53'30" NAD27

Land-surface elevation 3,207 feet above NAVD88

The depth of the well is 288 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data	
Tab-separated data	
Graph of data	
Reselect period	

Date	Time	? Water- level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1958-08-21		D	233.00			2		U		U	
1959-02-05		D	266.10			2	I	P U		U	
1983-02-01		D	259.88			2		U		U	
1998-01-28		D	264.60			2		S		U	

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LA	$\mathbf{p}_{\mathbf{B}}$	an	αι	IU	

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	Р	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	Α	Approved for publication Processing and review completed.

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0.31 0.29 nadww01





New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number Q64

Q64 Q16 Q4 Sec Tws Rng

A Y

C 03782 POD1

4 3 3 28 25S 30E

604526 3551444 =

Driller License: 331

Driller Company:

SBQ2, LLC DBA STEWART BROTHERS DRILLING

CO.

Driller Name:

Drill Start Date: 01/16/2015

8.63

Drill Finish Date:

01/17/2015

Plug Date:

Log File Date:

02/19/2015

PCW Rcv Date:

Depth Well:

Source: Estimated Yield: Artesian

Pump Type: Casing Size: Pipe Discharge Size:

805 feet

Depth Water:

277 feet

Water Bearing Stratifications:	Top	Bottom	Description
	260	320	Sandstone/Gravel/Conglomerate
	320	380	Sandstone/Gravel/Conglomerate
	380	410	Sandstone/Gravel/Conglomerate
	410	530	Shale/Mudstone/Siltstone
	530	590	Shale/Mudstone/Siltstone
	590	600	Shale/Mudstone/Siltstone
	600	630	Shale/Mudstone/Siltstone
	630	650	Shale/Mudstone/Siltstone
	650	700	Shale/Mudstone/Siltstone
	700	710	Shale/Mudstone/Siltstone
	710	760	Shale/Mudstone/Siltstone
	760	770	Shale/Mudstone/Siltstone
	770	780	Shale/Mudstone/Siltstone
	780	790	Shale/Mudstone/Siltstone
	790	805	Shale/Mudstone/Siltstone
Casing Perforations:	Тор	Bottom	
	270	805	

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7/27/20 10:36 AM

POINT OF DIVERSION SUMMARY



National Water Information System: Web Interface

USGS Water Resources

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Data Category: Geographic Area:

Groundwater V United States V GO

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Search Results -- 1 sites found

Agency code = usgs site_no list =

• 320857103553301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320857103553301 25S.30E.07.112331

Eddy County, New Mexico

Latitude 32°08'57", Longitude 103°55'33" NAD27

Land-surface elevation 3,169 feet above NAVD88

The depth of the well is 385 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water- level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1959-02-05		D	263.63			2		U		U	Α
1959-03-07		D	263.30			2		U		U	Α
1987-10-20		D	264.25			2		U		U	Α
1992-11-06		D	263			0		S		U	Α
1998-01-28		D	264.12			2		V		U	Α

Explanation

Section		Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	0	Water level accuracy to nearest foot
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Method of measurement	V	Calibrated electric-tape measurement.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	Α	Approved for publication Processing and review completed.

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Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2020-08-04 15:40:33 EDT

0.3 0.28 nadww01

USA.gov



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**

Q64 Q16 Q4 Sec Tws Rng

C 03781 POD1

25S 30E 3 3 13

609306 3554761

Driller License:

331

Driller Company:

Drill Finish Date:

SBQ2, LLC DBA STEWART BROTHERS DRILLING

Driller Name:

Drill Start Date: 01/08/2015

8.63

01/10/2015

Plug Date: Source:

Artesian

Log File Date: **Pump Type:**

02/19/2015

PCW Rcv Date: Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

720 feet

Depth Water:

325 feet

Water Bearing Stratifications:	Тор	Bottom	Description
	200	370	Sandstone/Gravel/Conglomerate
	370	390	Sandstone/Gravel/Conglomerate
	390	410	Sandstone/Gravel/Conglomerate
	410	440	Sandstone/Gravel/Conglomerate
	440	460	Shale/Mudstone/Siltstone
	460	470	Shale/Mudstone/Siltstone
	470	490	Shale/Mudstone/Siltstone
	490	500	Shale/Mudstone/Siltstone
	500	510	Sandstone/Gravel/Conglomerate
	510	530	Shale/Mudstone/Siltstone
	530	660	Shale/Mudstone/Siltstone
	660	690	Shale/Mudstone/Siltstone
	690	700	Shale/Mudstone/Siltstone
	700	720	Shale/Mudstone/Siltstone
Casing Perforations:	Тор	Bottom	
	340	720	

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7/27/20 10:36 AM

POINT OF DIVERSION SUMMARY



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Data Category:	Geographic Area:	
Groundwater	✓ United States	∨ GO

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Search Results -- 1 sites found

Agency code = usgs site_no list =

• 320849103533902

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320849103533902 25S.30E.08.242221A

Eddy County, New Mexico

Latitude 32°08'49", Longitude 103°53'39" NAD27

Land-surface elevation 3,230 feet above NAVD88

The depth of the well is 500 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data	
Tab-separated data	
Graph of data	
Reselect period	

Date	Time	? Water- level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1961-06-14		D	331.55				2 F	U		U	А
1998-01-28		D	326.53			2	2	S		U	Α

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	Р	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	Α	Approved for publication Processing and review completed.

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Search Results -- 1 sites found

Agency code = usgs site_no list =

• 320856103502801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320856103502801 25S.30E.12.113211

Eddy County, New Mexico

Latitude 32°08'56", Longitude 103°50'28" NAD27

Land-surface elevation 3,371 feet above NAVD88

The depth of the well is 482 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water- level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1959-03-25		D	391.30			2		U		U	А
1983-01-31		D	390.30			2		U		U	Α
1987-10-20		D	390.41			2		U		U	Α
1992-11-06		D	390.41			2		S		U	А
1998-01-28		D	390.08			2		S		U	Α

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	А	Approved for publication Processing and review completed.

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0.28 0.26 nadww01





Lat/La	LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation LITHOLOGIC / SOIL SAMPLING LOG									ent Number:	01292 M	Date: 06/02/2020 C Canyon 17 Fed 20085 Method: Hand Anger Total Depth: 2'
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol			Lit	thology/F	Remarks
М	280 220	6,600	2 2		1.25	1 2	5	sP SP	- <i>s</i> C .sc	dark	Brown Bown	n Non-plostic
Δ ,	210					- 3 - 3 4		1		isolida laye		
*						5		Refu	sal			
						8			RV	m		
						10						

			Con	LT Enviro 508 West arlsbad, No apliance · En IC / SOII	Stevens ew Mexic gineering	Street o 88220 · Remedia LING LO	10200	BH or PH Name: BHO 2 Site Name: PLU RP or Incident Number: LTE Job Number: Logged By: Robert Hole Diameter: 3"	012929 M	Date: 06/02/2020 Canyon 17 0085 Method: Hand Anger Total Depth:
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Li	thology/F	Remarks
		5,60			0.5	1 2 3 4 5 5 6 7 8 9 10 11 12	sn Vo	-sc/CHCE y consolida chc layer Fusal	Brow ted at	in/tan

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LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220

Site Name: PLU PC 17 TB

BH or PH Name:

BH03

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RP or Incident Number: NRM2015454866

Date:

7/16 - 7/17/2020

LTE Job Number: 012920085

LITHOLOGIC / SOIL SAMPLING LOG Logged By: FS Method: HVAC and Hammer Drill

Lat/Long: 32.12424, -103.89604 Field Screening: Hole Diameter: Total Depth: 3'
Hatch chloride strips, PID

Comments: All chloride screenings include a 40% correction factor

SAA: Same as above

SAA: S	Same as abo	ve	1	1			Ī	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					1	0	SP	SAND, dry, tan-light brown, poorly graded, fine-very fine, abundant caliche
M	436	1,042	Y	BH03	0.5'	0.5		gravel, tan-off white, poorly consolidated SAA
D	436	1,530	N		-	1	SM	SILTY sand, dry, light brown-brown, cohesive, low plasticity
D	436	883.5	N	ВН03А	2'	2	CCHE	CALICHE, dry, tan-off white, well consolidated
D	868	1,204	N	внозв	3'	3		SAA Total depth 3 feet bgs
					- - -	-		
					- - -	- - -		
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		2		I.T.Famile					BH or PH Name:	Date:	
1	1 5				ronmenta t Stevens				PH01	7/16/2020	
(7	(Carlsbad, N					Site Name: PLU PC 17 T	В	
	proud m	ember	Co	mpliance · E	nainoorina	. Domodi	ation		RP or Incident Number: N	RM2015454866	
٥	f WSP		COI	ilipliance · E	ngineening	· Kemeui	aliOII		LTE Job Number: 012920	085	
		LITH	OLOG	GIC / SOII	L SAMPI	LING LO)G		Logged By: FS	Method: Backl	ioe
Lat/Lo	ng: 32.1242	4, -103.89	604		Field Scree	ning:			Hole Diameter:	Total Depth: 3'	
Comm	anta, All ah	louido souo	anin aa i	nclude a 40%	Hatch chlo		PID				
	Same as abo		ennigs i	nciude a 40%	correction is	actor					
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Li	thology/Remarks	
						0	SP				ry fine, abundant caliche
D	554	0.5	N	PH01	1' _	1		gravel, ta SAA	n-off white, poorly co	nsolidated	
D	1,428	0.1	N	PH01A	2'	_ 2	SM	SILTY sa	and, dry, reddish brow	n, noncohesive, no p	lasticity
D	375	0.0	N	PH01B	3'	3	ССНЕ		E, dry, tan-off white,	well consolidated	
					-	-		Total dep	th 3 feet bgs		

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LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220

Site Name: PLU PC 17 TB

BH or PH Name:

Date: 7/16/2020

Compliance · Engineering · Remediation

RP or Incident Number: NRM2015454866 LTE Job Number: 012920085

LITHOLOGIC / SOIL SAMPLING LOG Logged By: FS Method: Backhoe

PH02

Lat/Long: 32.12424, -103.89604 Field Screening: Hole Diameter: Total Depth: 3' Hatch chloride strips, PID

Comments: All chloride screenings include a 40% correction factor

SAA:	Same as abo	ve			•		T	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS Syn	Lithology/Remarks
						0	SM	SILTY sand, dry, brown-reddish brown, noncohesive, no plasticity, some
D	229	0.1	N	PH02	1' _	1		caliche gravel, off white, poorly consolidated SAA
D	324	0.1	N	PH02A	2'	2	ССНЕ	CALICHE, dry, tan-off white, well consolidated
D	341	0.1	Z	PH02B	3'			SAA Total depth 3 feet bgs

12

LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 BH or PH Name: Date: PH03 7/16/2020

Site Name: PLU PC 17 TB

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Hatch chloride strips, PID

RP or Incident Number: NRM2015454866 LTE Job Number: 012920085

LITHOLOGIC / SOIL SAMPLING LOG Logged By: FS Method: Backhoe Lat/Long: 32.12424, -103.89604 Field Screening: Hole Diameter: Total Depth: 4'

Comments: All chloride screenings include a 40% correction factor

SAA: S	SAA: Same as above										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	SO	Lithology/Remarks			
					<u> </u>	0	SP	SAND, dry, light brown-brown, poorly graded, abundant caliche gravel,			
D	274	0.6	N	PH03	1' _	1		tan-off white, poorly consolidated SAA			
D	436	0.1	N	PH03A	2'	2	ССНЕ	CALICHE, dry, tan-off white, well consolidated			
D	828	0.2			-	3		SAA			
D	554	0.1	N	РН03В	4'	4		SAA Total depth 4 feet bgs			
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LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220

Site Name: PLU PC 17 TB

BH or PH Name:

PH04

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RP or Incident Number: NRM2015454866

Date:

7/16/2020

LTE Job Number: 012920085

LITHOLOGIC / SOIL SAMPLING $\overline{\text{LOG}}$ Logged By: FS Method: Backhoe

Lat/Long: 32.12424, -103.89604 Field Screening: Hole Diameter: Total Depth: 3' Hatch chloride strips, PID

Comments: All chloride screenings include a 40% correction factor

Sample Depth (ft bgs) NSCS/Rock Symbol OSS Symbol O	
SP SAND, dry, brown-reddish brown, poorly graded, trace silty sand,	and, non-
D 156 0.3 N PH04 1' 1 1 cohesive, no plasticity SAA	
D 156 0.1 N PH04A 2' 1 2 CCHE CALICHE, dry, tan-off white, well consolidated	
D 184 0.1 N PH04B 3 SAA Total depth 3 feet bgs	

,
1

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PH05 7/16/2020

Site Name: PLU PC 17 TB

BH or PH Name:

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RP or Incident Number: NRM2015454866

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS

Method: Backhoe

Date:

Lat/Long: 32.12424, -103.89604 Field Screening: Hole Diameter: Total Depth: 3'
Hatch chloride strips, PID

Comments: All chloride screenings include a 40% correction factor

SAA: S	ame as abo	ve						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, brown-reddish brown, poorly graded, trace silty sand, non-
						T ,		cohesive, no plasticity
D	184	12.2	N	PH05	1'	1		SAA
D	184	1.8	N	PH05A	2'	2		SAA
D	184	0.2	N	PH05B	3'	3	ССНЕ	CALICHE, dry, tan-off white, well consolidated Total depth 3 feet bgs
					-	-		Total deput 3 feet bgs
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					-	-		
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LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220

Site Name: PLU PC 17 TB

Date: 7/16/2020

 $Compliance \cdot \textit{Engineering} \cdot \textit{Remediation}$

RP or Incident Number: NRM2015454866

LTE Job Number: 012920085

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS

BH or PH Name:

PH06

Method: Backhoe

Lat/Long: 32.12424, -103.89604

Field Screening: Hatch chloride strips, PID Hole Diameter:

Total Depth: 3'

Comments: All chloride screenings include a 40% correction factor

SAA: S	Same as abo	ve						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, brown-reddish brown, poorly graded, trace silty sand, non-
						L ~	51	cohesive, no plasticity
D	184	14.2	N	PH06	1'	1		SAA
D	224	0.1	N	PH06A	2'	_ 2	ССНЕ	CALICHE, dry, tan-off white, well consolidated
D	296	0.1	N	РН06В	3'	3		SAA Total depth 3 feet bgs
					-	_		Total depth 3 feet bgs
					-	_		
					_	_		
					_	_		
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PHOTOGRAPHIC LOG



Photograph 1: View of the breached area within the subject release area following recovery of produced water within containment.



Photograph 2: View of subject release area facing northeast.



Photograph 3: Utilizing a hammer drill in an effort to advance through formation material within the lined steel berm (BH03).

Pierce Canyon 17 TB NRM2015454866

Page 1 of 2

Photographs Taken: June 2 through July 16, 2020



PHOTOGRAPHIC LOG



Photograph 4: View of formation material within the lined steel berm.



Photograph 5: Injecting Microblaze beneath liner incision prior to repair.

Pierce Canyon 17 TB NRM2015454866

Photographs Taken: June 2 through July 16, 2020





Certificate of Analysis Summary 663489

LT Environmental, Inc., Arvada, CO

Project Name: PLU Pierce Canyon 17 Fed

Project Id: Contact:

Project Location:

012920085

Dan Moir

Date Received in Lab: Thu 06.04.2020 13:22

Report Date: 06.08.2020 10:39

Project Manager: Jessica Kramer

	Lab Id:	663489-0	001	663489-0	02		
Analysis Requested	Field Id:	BH01		BH01A	L		
Anaiysis Requesieu	Depth:	1.25- ft		2- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	06.02.2020	10:48	06.02.2020	10:54		
BTEX by EPA 8021B	Extracted:	06.04.2020	14:30	06.04.2020	14:30		
	Analyzed:	06.04.2020	19:22	06.05.2020	10:34		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		< 0.0970	0.0970	< 0.241	0.241		
Toluene		43.2	0.404	45.9	1.00		
Ethylbenzene		24.2	0.404	22.1	1.00		
m,p-Xylenes		422 D	4.04	226	2.01		
o-Xylene		65.4	0.404	65.9	1.00		
Total Xylenes		487	0.404	292	1.00		
Total BTEX		555	0.0970	360	0.241		
Chloride by EPA 300	Extracted:	06.04.2020	17:00	06.04.2020	17:00		
	Analyzed:	06.04.2020	18:41	06.04.2020	18:48		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		149	10.1	286	10.0		
TPH by SW8015 Mod	Extracted:	06.04.2020	15:30	06.04.2020	15:30		
	Analyzed:	06.05.2020	13:19	06.05.2020	13:40		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		5800	251	11200	251		
Diesel Range Organics (DRO)		11400	251	19900	251		
Motor Oil Range Hydrocarbons (MRO)		513	251	924	251		
Total GRO-DRO		17200	251	31100	251		
Total TPH		17700	251	32000	251		

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

Jessica Kramer

Jessica Kramer Project Manager



Analytical Report 663489

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Pierce Canyon 17 Fed 012920085 06.08.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.08.2020

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

Reference: XENCO Report No(s): 663489

PLU Pierce Canyon 17 Fed

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 663489. 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. 663489 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 663489

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	06.02.2020 10:48	1.25 ft	663489-001
BH01A	S	06.02.2020 10:54	2 ft	663489-002

Page 48 of 152

CASE NARRATIVE

XENCO

Client Name: LT Environmental, Inc. Project Name: PLU Pierce Canyon 17 Fed

 Project ID:
 012920085
 Report Date:
 06.08.2020

 Work Order Number(s):
 663489
 Date Received:
 06.04.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id: **BH01** Matrix: Soil Date Received:06.04.2020 13:22

Lab Sample Id: 663489-001

Date Collected: 06.02.2020 10:48

Sample Depth: 1.25 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

MAB

Wet Weight

Analyst: Seq Number: 3128048

MAB

Date Prep:

06.04.2020 17:00

Basis:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	149	10.1	mg/kg	06.04.2020 18:41		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

DTH

% Moisture:

Analyst:

Tech:

DTH

Date Prep: 06.04.2020 15:30 Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	5800	251		mg/kg	06.05.2020 13:19		5
Diesel Range Organics (DRO)	C10C28DRO	11400	251		mg/kg	06.05.2020 13:19		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	513	251		mg/kg	06.05.2020 13:19		5
Total GRO-DRO	PHC628	17200	251		mg/kg	06.05.2020 13:19		5
Total TPH	PHC635	17700	251		mg/kg	06.05.2020 13:19		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	118	%	70-135	06.05.2020 13:19		
o-Terphenyl		84-15-1	126	%	70-135	06.05.2020 13:19		



LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Soil

Sample Id: BH01

Matrix:

Date Received:06.04.2020 13:22

Lab Sample Id: 663489-001 Date Collected: 06.02.2020 10:48

Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: M

MAB

Date Prep: 06.04.2020 14:30

Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.0970	0.0970		mg/kg	06.04.2020 19:22	U	200
Toluene	108-88-3	43.2	0.404		mg/kg	06.04.2020 19:22		200
Ethylbenzene	100-41-4	24.2	0.404		mg/kg	06.04.2020 19:22		200
m,p-Xylenes	179601-23-1	422	4.04		mg/kg	06.05.2020 11:15	D	1000
o-Xylene	95-47-6	65.4	0.404		mg/kg	06.04.2020 19:22		200
Total Xylenes	1330-20-7	487	0.404		mg/kg	06.05.2020 11:15		1000
Total BTEX		555	0.0970		mg/kg	06.05.2020 11:15		1000
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	91	%	70-130	06.04.2020 19:22		
4-Bromofluorobenzene		460-00-4	103	%	70-130	06.04.2020 19:22		



LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id: **BH01A**

Matrix: Soil

Date Received:06.04.2020 13:22

Lab Sample Id: 663489-002

Date Collected: 06.02.2020 10:54

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: MAB

MAB

% Moisture: Basis:

Wet Weight

Seq Number: 3128048

Deq 1 (dilliot)

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	286	10.0	mg/kg	06.04.2020 18:48		1

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:
Analyst:

DTH DTH

Date Prep:

06.04.2020 15:30

06.04.2020 17:00

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	11200	251		mg/kg	06.05.2020 13:40		5
Diesel Range Organics (DRO)	C10C28DRO	19900	251		mg/kg	06.05.2020 13:40		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	924	251		mg/kg	06.05.2020 13:40		5
Total GRO-DRO	PHC628	31100	251		mg/kg	06.05.2020 13:40		5
Total TPH	PHC635	32000	251		mg/kg	06.05.2020 13:40		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	06.05.2020 13:40		
o-Terphenyl		84-15-1	108	%	70-135	06.05.2020 13:40		



LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id: BH01A Matrix: Soil Date Received:06.04.2020 13:22

Lab Sample Id: 663489-002

Date Collected: 06.02.2020 10:54

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep: 06.04.2020 14:30 Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.241	0.241		mg/kg	06.05.2020 10:34	U	500
Toluene	108-88-3	45.9	1.00		mg/kg	06.05.2020 10:34		500
Ethylbenzene	100-41-4	22.1	1.00		mg/kg	06.05.2020 10:34		500
m,p-Xylenes	179601-23-1	226	2.01		mg/kg	06.05.2020 10:34		500
o-Xylene	95-47-6	65.9	1.00		mg/kg	06.05.2020 10:34		500
Total Xylenes	1330-20-7	292	1.00		mg/kg	06.05.2020 10:34		500
Total BTEX		360	0.241		mg/kg	06.05.2020 10:34		500
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	100	%	70-130	06.05.2020 10:34		
4-Bromofluorobenzene		460-00-4	111	%	70-130	06.05.2020 10:34		



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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- 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.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS Matrix Spike MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Flag

Flag

Flag

QC Summary 663489



LT Environmental, Inc.

LCSD

663487-001 S

LCSD

PLU Pierce Canyon 17 Fed

Analytical Method: Chloride by EPA 300

Seq Number: 3128048 Matrix: Solid

E300P Prep Method:

RPD

Date Prep: 06.04.2020

Units

LCS Sample Id: 7704822-1-BKS LCSD Sample Id: 7704822-1-BSD MB Sample Id: 7704822-1-BLK LCS

LCS

Parameter Result Amount Result %Rec Result %Rec Limit Date Chloride <10.0 250 252 101 252 90-110 0 20 06.04.2020 18:06 101 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number: Parent Sample Id: 3128048 663487-001 MB

Spike

Matrix: Soil

MS Sample Id:

Prep Method:

%RPD

Limits

E300P

Analysis

Date Prep: 06.04.2020

MSD Sample Id: 663487-001 SD

Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec %Rec Limit Date Result

20 06.04.2020 18:27 Chloride 126 200 319 97 319 97 90-110 0 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3128048

Prep Method:

E300P

Matrix: Soil Date Prep: MS Sample Id: 663532-006 S Parent Sample Id: 663532-006

06.04.2020 MSD Sample Id: 663532-006 SD

Spike **RPD Parent** MS MS %RPD Units MSD **MSD** Limite Analysis Flag **Parameter** Result Result Limit Date Amount %Rec Result %Rec Chloride 108 199 294 20 06.04.2020 20:26 93 292 93 90-110 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

3128108

Matrix: Solid

Prep Method: Date Prep:

SW8015P

06.04.2020 MB Sample Id: 7704860-1-BLK LCS Sample Id: 7704860-1-BKS LCSD Sample Id: 7704860-1-BSD

RPD

MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec %Rec Result Gasoline Range Hydrocarbons (GRO) 06.04.2020 17:22 992 99 35 < 50.0 1000 1020 102 70-135 3 mg/kg 06.04.2020 17:22 Diesel Range Organics (DRO) 1130 113 70-135 3 35 < 50.0 1000 1100 110 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** Flag %Rec %Rec Flag Date Flag %Rec 06.04.2020 17:22 1-Chlorooctane 97 118 122 70-135 % 06.04.2020 17:22 o-Terphenyl 96 106 111 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3128108

Matrix: Solid

Prep Method: Date Prep: SW8015P 06.04.2020

MB Sample Id: 7704860-1-BLK

Parameter

MBResult < 50.0

Units

Analysis Date

06.04.2020 13:52 mg/kg

Motor Oil Range Hydrocarbons (MRO)

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result = MSD/LCSD Result

Flag

Flag

QC Summary 663489

LT Environmental, Inc.

PLU Pierce Canyon 17 Fed

Analytical Method: TPH by SW8015 Mod

Seq Number: 3128108

Parent Sample Id: 663490-001

SW8015P Prep Method: Matrix: Soil Date Prep: 06.04.2020

MS Sample Id: 663490-001 S MSD Sample Id: 663490-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Gasoline Range Hydrocarbons (GRO)	< 50.2	1000	1260	126	1300	130	70-135	3	35	mg/kg	06.05.2020 10:14
Diesel Range Organics (DRO)	< 50.2	1000	1150	115	1190	119	70-135	3	35	mg/kg	06.05.2020 10:14

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		126		70-135	%	06.05.2020 10:14
o-Terphenyl	117		123		70-135	%	06.05.2020 10:14

Analytical Method: BTEX by EPA 8021B

3128056 Seq Number:

Matrix: Solid

Prep Method:

SW5035A

Date Prep: 06.04.2020

LCS Sample Id: 7704782-1-BKS LCSD Sample Id: 7704782-1-BSD MB Sample Id: 7704782-1-BLK RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Amount Result %Rec Result %Rec Limit Date

06.04.2020 15:17 Benzene < 0.00200 0.100 0.111 111 0.119 70-130 7 35 119 mg/kg 06.04.2020 15:17 Toluene < 0.00200 0.100 0.104 104 0.113 113 70-130 8 35 mg/kg 06.04.2020 15:17 Ethylbenzene < 0.00200 0.100 0.0981 98 0.105 105 71-129 7 35 mg/kg 06.04.2020 15:17 m,p-Xylenes < 0.00400 0.200 0.198 99 0.217 109 70-135 9 35 mg/kg 102 71-133 06.04.2020 15:17 o-Xylene < 0.00200 0.100 0.102 0.109 109 7 35 mg/kg

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		106		106		70-130	%	06.04.2020 15:17
4-Bromofluorobenzene	94		89		90		70-130	%	06.04.2020 15:17

Analytical Method: BTEX by EPA 8021B

Seq Number: 3128056 Parent Sample Id:

663406-002

Matrix: Soil

MS Sample Id: 663406-002 S Prep Method: Date Prep:

SW5035A 06.04.2020

MSD Sample Id: 663406-002 SD

RPD **Parent** Spike MS MS MSD MSD Limits %RPD Units Analysis Flag **Parameter** Limit Date Result Amount Result %Rec %Rec Result 06.04.2020 15:58 < 0.00200 0.0998 0.120 120 0.128 70-130 35 Benzene 128 6 mg/kg 06.04.2020 15:58 70-130 7 35 Toluene < 0.00200 0.0998 0.113113 0.121 121 mg/kg Ethylbenzene < 0.00200 0.0998 0.106 106 0.114 114 71-129 7 35 06.04.2020 15:58 mg/kg < 0.00399 0.200 0.214 107 0.231 70-135 8 35 06.04.2020 15:58 m,p-Xylenes 115 mg/kg o-Xylene < 0.00200 0.0998 0.107 107 0.116 71-133 8 35 mg/kg 06.04.2020 15:58 116

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	06.04.2020 15:58
4-Bromofluorobenzene	91		95		70-130	%	06.04.2020 15:58

E = MSD/LCSD Result

Chain of Custody

Work Order No: _

Hobbs, NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) 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

Recei	ived	by who links	10 R M mal	Relinguished by: (Sig	opervice. Xenco will be liable of the control of th	Malice: Signature of this docum	-	- 11	3:08	AN	I					BHOIA	010	RUAI	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	Sampler's Name: R	P.O. Number:	Project Number:	Project Name:		ate ZIP:		Name:	
	(7	Received by: (Signature)	Relinquished by: (Signature) Decing Law (Signature)	Xenco will be liable only for the cost of samples and shall nosaumes a valid purchase order from client company to Xenco, its affiliates and subcon A minimum charge of \$75.00 will be applied to each project and a charge of \$75.00 w	: Signature of this document and relinquishment of samples constitute.	200.8 / 6020: 8RCRA						/			5 06/02/20 10	06/02/10	Sampled	Matrix Date	No N/A	Yes N/A Correction Factor:	(Yes No		Temp Blank: Yes No	Robert McAfee		012920085	PLU Pierce Canyon 17 Fed	16	Midland, TX 79705	3300 North A St. Bldg 1, Unit 222	LT Environmental, Inc., Permian office	Dan Moir
		64/2) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ge or 35 for each sample submitted to	any responsibility for any losses or	TCLP / SPLP 6010: 8RCRA SI	13PPM Texas 11 Al Sb	11 1								1054 2/	1048 1.25	ed Deput		9	2.0-7			Wet Ice: Yes No	Due Date:	Rush:	Routine V		Email: dmoir@ltenv.com rmcafee@ltenv.com	City, State ZIP:	Address:	Company Name:	Bill to: (if different)
0	4	0 13:27 2	Date/Time Relinquished by: (Signature)	o Xenco, but not analyzed. These terms will be enforced unle	Service. Xenco will be liable only for the cost of samples consultues a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions and conditions of the cost of samples and salar not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances haven the cost of the c	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U	As Ba Be B Cd Ca Cr				W/W	1000	5			× × ×	×××	ВТЕ	X (EF	A 80	(21)	1.0)					STATE OF SECOND		rmcafee@ltenv.com	Carlsbad, NM	3104 E Greene St.	XTO Energy	Kyle Littrell
			Received by: (Signature)	will be enforced unless previously negotiated.		Ag SIOZ	Co Cu Fe Ph Ma Ma Ma Ni K Sa Asisa Na								0					TA											State of Project: NM	Program: HST/BST BBB Barrer Inchinents	W
Revised Date 051418 Rev. 2018 4			Date/Time			1631 / 245.1 / 7470 / 7471 : Hg									discrete	discrete	, ,	Sample Comments	lab, if received by 4:30pm	TAT starts the day recevied by the							Work Order Notes	ш	Other	T RRP bvel IV	lds _kc _uperfund _	'	Page of

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 06.04.2020 01.22.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 663489

Temperature Measuring device used: T-NM-007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		2.2	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?		Yes	
#6*Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated to	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headsp	ace?	N/A	

٠N	lust	he	comp	leted	for	after-	hours	delive	rv of	samples	nrior to	o placino	ı in th	e refria	erator
14	ıusı	υc	CUIID	ICICU	101	aitei-	าเบนเธ	uelive		Sallibles	S DITOL II	J DIACILIC	4 111 111	e remu	si alvi

Analyst:

PH Device/Lot#:

Checklist completed by: Elizabeth McClellan

Date: 06.04.2020

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: 06.08.2020



Certificate of Analysis Summary 663487

LT Environmental, Inc., Arvada, CO

Project Name: PLU Pierce Canyon 17 Fed

Project Id: Contact:

Project Location:

012920085

Dan Moir

Date Received in Lab: Thu 06.04.2020 13:22

Report Date: 06.08.2020 10:39

Project Manager: Jessica Kramer

					· ·	9	
	Lab Id:	663487-00)1				
Analysis Requested	Field Id:	BH02					
Anaiysis Requesieu	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	06.02.2020 1	2:20				
BTEX by EPA 8021B	Extracted:	06.04.2020 1	4:30				
	Analyzed:	06.04.2020 1	9:01				
	Units/RL:	mg/kg	RL				
Benzene		< 0.101	0.101				
Toluene		37.8	0.404				
Ethylbenzene		17.7	0.404				
m,p-Xylenes		230 D	4.04				
o-Xylene		56.6	0.404				
Total Xylenes		287	0.404				
Total BTEX		342	0.101				
Chloride by EPA 300	Extracted:	06.04.2020 1	7:00				
	Analyzed:	06.04.2020 1	8:20				
	Units/RL:	mg/kg	RL				
Chloride		126	9.98				
TPH by SW8015 Mod	Extracted:	06.04.2020 1	4:30				
	Analyzed:	06.05.2020 1	4:00				
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		3180	251				
Diesel Range Organics (DRO)		7150	251				
Motor Oil Range Hydrocarbons (MRO)		368	251				
Total GRO-DRO		10300	251				
Total TPH		10700	251				

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

Jessica Vramer

Jessica Kramer Project Manager



Analytical Report 663487

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Pierce Canyon 17 Fed 012920085 06.08.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.08.2020

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

Reference: XENCO Report No(s): 663487

PLU Pierce Canyon 17 Fed

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 663487. 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. 663487 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 663487

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH02	S	06.02.2020 12:20	0.5 ft	663487-001

Page 62 of 152

CASE NARRATIVE

XENCO

Client Name: LT Environmental, Inc. Project Name: PLU Pierce Canyon 17 Fed

 Project ID:
 012920085
 Report Date:
 06.08.2020

 Work Order Number(s):
 663487
 Date Received:
 06.04.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id: **BH02** Matrix: Soil Date Received:06.04.2020 13:22

Lab Sample Id: 663487-001

Date Collected: 06.02.2020 12:20

06.04.2020 17:00

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep:

Basis:

Wet Weight

Seq Number: 3128048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	126	9.98	mg/kg	06.04.2020 18:20		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

Analyst: DTH

Seq Number: 3128108

06.04.2020 14:30 Date Prep:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	3180	251		mg/kg	06.05.2020 14:00		5
Diesel Range Organics (DRO)	C10C28DRO	7150	251		mg/kg	06.05.2020 14:00		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	368	251		mg/kg	06.05.2020 14:00		5
Total GRO-DRO	PHC628	10300	251		mg/kg	06.05.2020 14:00		5
Total TPH	PHC635	10700	251		mg/kg	06.05.2020 14:00		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	89	%	70-135	06.05.2020 14:00
o-Terphenyl	84-15-1	111	%	70-135	06.05.2020 14:00



LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id: BH02

Matrix: Soil

Date Received:06.04.2020 13:22

Lab Sample Id: 663487-001

Date Collected: 06.02.2020 12:20

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech:

MAB

Date Prep: 06.04.2020 14:30

Basis:

Wet Weight

Analyst: MAB Seq Number: 3128056

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.10	0.101		mg/kg	06.04.2020 19:01	U	200
Toluene	108-88-3	37.8	0.404		mg/kg	06.04.2020 19:01		200
Ethylbenzene	100-41-4	17.7	0.404		mg/kg	06.04.2020 19:01		200
m,p-Xylenes	179601-23-1	230	4.04		mg/kg	06.05.2020 10:54	D	1000
o-Xylene	95-47-6	56.6	0.404		mg/kg	06.04.2020 19:01		200
Total Xylenes	1330-20-7	287	0.404		mg/kg	06.05.2020 10:54		1000
Total BTEX		342	0.101		mg/kg	06.05.2020 10:54		1000
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	92	%	70-130	06.04.2020 19:01		
4-Bromofluorobenzene		460-00-4	103	%	70-130	06.04.2020.19:01		



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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- 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.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS

Matrix Spike

MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Flag

QC Summary 663487



LT Environmental, Inc.

PLU Pierce Canyon 17 Fed

Analytical Method: Chloride by EPA 300

Seq Number: 3128048

Matrix: Solid

E300P Prep Method:

RPD

Date Prep: 06.04.2020

LCS Sample Id: 7704822-1-BKS LCSD Sample Id: 7704822-1-BSD MB Sample Id: 7704822-1-BLK

LCS MB Spike LCS Limits %RPD Units Analysis LCSD LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date Chloride <10.0 250 252 101 252 90-110 0 20 06.04.2020 18:06 101 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

Parent Sample Id:

3128048

Matrix: Soil

Prep Method:

E300P

Date Prep: 06.04.2020

663487-001 S 663487-001 MS Sample Id: MSD Sample Id: 663487-001 SD

Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec %Rec Limit Date Result 06.04.2020 18:27 Chloride 126 200 319 97 319 97 90-110 0 20 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3128048

E300P Prep Method:

RPD

%RPD

Limite

Analysis

Matrix: Soil Date Prep: 06.04.2020

MS

MS Sample Id: 663532-006 S MSD Sample Id: 663532-006 SD Parent Sample Id: 663532-006 MS

Spike **Parent** MSD **MSD** Flag **Parameter** Result Result Limit Date Amount %Rec Result %Rec Chloride 108 199 294 20 06.04.2020 20:26 93 292 93 90-110 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number: MB Sample Id: 3128108

Matrix: Solid

SW8015P Prep Method:

Date Prep: 06.04.2020

Units

7704860-1-BLK LCS Sample Id: 7704860-1-BKS LCSD Sample Id: 7704860-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis Flag **Parameter** Result Limit Date Result Amount %Rec %Rec Result Gasoline Range Hydrocarbons (GRO) 06.04.2020 17:22 992 99 35 < 50.0 1000 1020 102 70-135 3 mg/kg 06.04.2020 17:22 Diesel Range Organics (DRO) 1130 113 70-135 3 35 < 50.0 1000 1100 110 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** Flag %Rec %Rec Flag Date Flag %Rec 06.04.2020 17:22 1-Chlorooctane 97 118 122 70-135 % 06.04.2020 17:22 o-Terphenyl 96 106 111 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3128108

Matrix: Solid

Prep Method: Date Prep: SW8015P 06.04.2020

MB Sample Id: 7704860-1-BLK

Parameter

MBResult

Analysis

Flag

Date

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

06.04.2020 13:52

QC Summary 663487

LT Environmental, Inc.

PLU Pierce Canyon 17 Fed

663490-001 S

Analytical Method: TPH by SW8015 Mod

Seq Number: 3128108

663490-001 Parent Sample Id:

SW8015P Prep Method: Matrix: Soil Date Prep: 06.04.2020

RPD **Parent** Spike MS MS Limits %RPD Units Analysis MSD MSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.2 1000 1260 126 35 06.05.2020 10:14 1300 70-135 3 130 mg/kg 06.05.2020 10:14 3 Diesel Range Organics (DRO) < 50.2 1000 1150 115 1190 70-135 35 mg/kg 119

MS Sample Id:

MS MS **MSD** Limits Units Analysis MSD **Surrogate** %Rec Flag Flag Date %Rec 06.05.2020 10:14 1-Chlorooctane 130 126 70-135 % 06.05.2020 10:14 o-Terphenyl 117 123 70-135 %

Analytical Method: BTEX by EPA 8021B

3128056 Seq Number:

Matrix: Solid

Prep Method:

MSD Sample Id:

SW5035A

Flag

Flag

663490-001 SD

06.04.2020

Date Prep: LCS Sample Id: 7704782-1-BKS LCSD Sample Id: 7704782-1-BSD MB Sample Id: 7704782-1-BLK

Parameter	MB	Spike	LCS	LCS	LCSD	LCSD	Limits	%RPD	RPD	Units	Analysis	7
r ar ameter	Result	Amount	Result	%Rec	Result	%Rec			Limit		Date	
Benzene	< 0.00200	0.100	0.111	111	0.119	119	70-130	7	35	mg/kg	06.04.2020 15:17	
Toluene	< 0.00200	0.100	0.104	104	0.113	113	70-130	8	35	mg/kg	06.04.2020 15:17	
Ethylbenzene	< 0.00200	0.100	0.0981	98	0.105	105	71-129	7	35	mg/kg	06.04.2020 15:17	
m,p-Xylenes	< 0.00400	0.200	0.198	99	0.217	109	70-135	9	35	mg/kg	06.04.2020 15:17	
o-Xylene	< 0.00200	0.100	0.102	102	0.109	109	71-133	7	35	mg/kg	06.04.2020 15:17	

MB MB LCS LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec Flag %Rec Flag %Rec Flag Date 06.04.2020 15:17 1,4-Difluorobenzene 111 106 106 70-130 % 06.04.2020 15:17 4-Bromofluorobenzene 70-130 % 94 89 90

Analytical Method: BTEX by EPA 8021B

Seg Number: 3128056

Parent Sample Id: 663406-002

Matrix: Soil MS Sample Id: 663406-002 S Prep Method: Date Prep:

SW5035A 06.04.2020

MSD Sample Id: 663406-002 SD

RPD **Parent** Spike MS MS MSD **MSD** Limits %RPD Units Analysis **Parameter** Limit Date Result Amount Result %Rec %Rec Result 06.04.2020 15:58 < 0.00200 0.0998 0.120 120 0.128 70-130 35 Benzene 128 6 mg/kg 06.04.2020 15:58 70-130 7 35 Toluene < 0.00200 0.0998 0.113113 0.121 121 mg/kg Ethylbenzene < 0.00200 0.0998 0.106 106 0.114 114 71-129 7 35 06.04.2020 15:58 mg/kg 107 0.231 70-135 35 06.04.2020 15:58 m,p-Xylenes < 0.00399 0.200 0.214 115 8 mg/kg < 0.00200 0.0998 0.107 107 0.116 71-133 35 mg/kg 06.04.2020 15:58 o-Xylene 116

MS MS **MSD MSD** Limits Units Analysis Surrogate Flag Date Flag %Rec %Rec 06.04.2020 15:58 1,4-Difluorobenzene 109 108 70-130 % 06.04.2020 15:58 4-Bromofluorobenzene 91 95 70-130 %

E = MSD/LCSD Result

Address: Project Manager: Company Name: Dan Moir

Phone:

City, State ZIP:

Midland, TX 79705

(432) 701-2610

dmoir@ltenv.com rmcafee@ltenv.com

City, State ZIP:

Carlsbad, NM

RRP Byel IV

uperfund

Deliverables: EDD

ADaPT

Chain of Custody

Work Order No: 10103487

www.xenco.com

Page_

Work Order Comments

3300 North A St. Bldg 1, Unit 222 LT Environmental, Inc., Permian office Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) 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 Address: Bill to: (if different) Company Name: XTO Energy 3104 E Greene St. Kyle Littrell Program: UST/PST PRP Brownfields RC State of Project: NM

Project Number: C 2420-655 Routine Project Number: Robert McAfee Rush:	Cobert McAfee Temp Blank: Yes No Wet Ice: Yes No Thermometer ID Yes No N/A Correction Factor: -0-2 Yes No N/A Total Containers: Total C	Routine Routine Rush:		PLU Pierce	Carryon 17 Fed	Turn Around	
Temp Blank: Yes No Wet Ice: Yes No Thermometer ID Thermometer ID Thermometer ID Thermometer ID Total Containers: Sampled Sampled Containers Time Sampled Sampled Depth Number of Containers TPH (EPA 8015) BTEX (EPA 8021)	Temp Blank: Yes No Wet Ice: Yes No Thermometer ID Yes No N/A Correction Factor: -0-7 Yes No N/A Total Containers: Depth Sampled Sampled Depth Number of Containers The Date Time Depth Number of Containers The Depth Number of Containers X Page No No N/A Total Containers Sampled Sampled Depth Number of Containers X Page No No N/A Total Containers Sampled Sampled Depth Number of Containers X Page No No N/A Total Containers X Page No No N/A Total Containers Yes No N/A Total Containers: Number of Containers X Page No No N/A Total Containers X Page No No N/A Total Containers X Page No N/A	PLE RECEIPT Temp Blank: (res) No West too: (res) No Thermometer ID Temp Blank: (res) No Temp	umber:	01292002		Routine Rush:	
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Yes No N/A Correction Factor: Ves No N/A Total Containers: Sampled Sampled Sampled Depth Number of Contain TPH (EPA 8015) BTEX (EPA 8021)	Yes No N/A Correction Factor: -0-7 Yes No N/A Total Containers:	Received Intact: Received Intact: Yes No NIA Correction Fador -0-2 Color Custody Seals: Yes No NIA Total Containers: Total Co	Temperature (°C):	20			ers
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Ves (No) N/A Total Containers: Date Time Sampled Sampled Depth Number of X X BTEX (EPA 8)	res (No) N/A Total Containers: Date Time Sampled Sampled Depth Number of X X X X X X X X X X X X X X X X X X	ample Custody Seals: Yes (No) N/A Total Containers: Time Sampled Sampled Sampled Depth De	Cooler Custody Seals:	1	Correction F	1	15)
Matrix Sampled Sampled Depth Number 1720 0.5 / X BTEX (E	Date Time Sampled Sampled Sampled Depth be (E) 5 06/02/28 (220 0.5' X PH (E)	Sample Identification Matrix Sampled Sampled Matrix Sampled Sampled Sampled Depth Depth	Sample Custody Seals:	No	Total Conta	ainers:	A 80
5 06/02/20 1220 0.5' 1 X	5 06/02/20 1220 0.5' 1 X	Total 200.7/6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Fe Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn M ice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It asservice. Xenco will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed Those terms will be enforce. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. Those terms will be enforced by: (Signature) Received by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature) Relinquished by: (Signature)	Sample Identific		Date Sampled		TPH (EP
		Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be B Cd Ca Cr Co Cu Fe Circle Method(s) and metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assence. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforce Relinquished by: (Signature) Received by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature) Relinquished by: (Signature)	KKO2	a	20		
		Total 200.7 / 6010 200.8 / 6020: **Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA 13PPM Texas 11 Al Sb As Ba Be Cd Ca Cr Co Cu Fe Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Fe Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn ice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It is affiliated and subcontractors. It is affiliated and subcontractors. It is affiliated to Xenco, but not analyzed. These terms will be enfo Relinquished by: (Signature) **Received by: (Signature) **Received by: (Signature) **Received by: (Signature) **Received by: (Signature)					
		Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be B Cd Ca Cr Co Cu F Ce: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It enco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be entit Relinquished by: (Signature) Received by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature))
		Total 200.7 / 6010 200.8 / 6020: BRCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Fe Circle Method(s) and metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn N ce: Signature of this document and relinquishment of samples constitutes a valid purchase order from cilent company to xenco, its affiliates and subcontractors. It as a sample submitted to xenco, but not analyzed. These terms will be enforced by: (Signature) Received by: (Signature)					
		Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be B Cd Ca Cr Co Cu Fe errice. 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 errice. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforce Relinquished by: (Signature) Received by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature) Relinquished by: (Signature)					
		Total 200.7 / 6010 200.8 / 6020: SRCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Fb Mn M. Ice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assence, a minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforce. Relinquished by: (Signature) Received by: (Signature) Received by: (Signature) Received by: (Signature) Received by: (Signature) Relinquished by: (Signature)					
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn		Relinquished by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature) Relinquished by: (Signature)	service. Xenco will be liable of Xenco. A minimum charge of	ent and relinquishment of only for the cost of sample \$75.00 will be applied to	samples constitutes a values and shall not assume a each project and a charge	lid purchase order from c ny responsibility for any of \$5 for each sample su	ent company to Xenco, osses or expenses incu mitted to Xenco, but no
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA SB As Ba Be B Cd Ca Cr Co Cu Pb Mn Title: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It 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 exence. A minimum charge of \$75.00 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.	ce: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It a ervice. 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 denco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enfor	13:22	Relinquished by: (Sig	nature)	Received by (Sig	nature)	Date/Time
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn loss signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It enco. A minimum charge of \$75.00 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 by: (Signature) Received by: (Signature) Received by: (Signature) BRITIME Relinquished by: (Signature) Received by: (Signature) Relinquished by: (Signature)	It a cross Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It a revice. 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 d enco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enformed in the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are d enformed. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enformed by: (Signature) Relinquished by: (Signature) Received by: (Signature)		Finish Madhe		Sich School for		

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 06.04.2020 01.22.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 663487

Temperature Measuring device used: T-NM-007

Sample	Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ coole	r? Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ receive	ved? Yes	
#10 Chain of Custody agrees with sample labels/matr	ix? Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Sample received in bulk container.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

' Must be completed for after-hours delivery of samples prior to placing in the refr	luerator
--	----------

Analyst:

PH Device/Lot#:

Checklist completed by:

Date: 06.04.2020

Checklist reviewed by: Jessica Warner

Date: 06.08.2020



Certificate of Analysis Summary 667503

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: Contact: 012920085

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Thu 07.16.2020 17:25

Report Date: 07.17.2020 19:13

Project Manager: Jessica Kramer

	Lab Id:	667503-0	001	667503-0	002		
Analysis Requested	Field Id:	BH03	3	BH03A	A		
Anatysis Requested	Depth:	0.5- ft	:	2- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	07.16.2020	09:23	07.16.2020	09:37		
BTEX by EPA 8021B	Extracted:	07.17.2020	10:42	07.17.2020	10:42		
	Analyzed:	07.17.2020	15:58	07.17.2020	16:20		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene	,	< 0.0998	0.0998	< 0.0996	0.0996		
Toluene		0.467	0.399	3.00	0.398		
Ethylbenzene	ene		0.399	5.98	0.398		
m,p-Xylenes		8.95	0.798	56.1	0.797		
o-Xylene		5.22	0.399	15.7	0.398		
Total Xylenes		14.2	0.399	71.8	0.398		
Total BTEX		15.9	0.0998	80.8	0.0996		
Chloride by EPA 300	Extracted:	07.17.2020	13:00	07.17.2020	13:00		
	Analyzed:	07.17.2020	14:57	07.17.2020	15:14		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		126	9.94	467	10.1		
TPH by SW8015 Mod	Extracted:	07.17.2020	14:30	07.17.2020	14:30		
	Analyzed:	07.17.2020	16:40	07.17.2020	16:40		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		901	249	1200	249		
Diesel Range Organics (DRO)		6600	249	6880	249		
Motor Oil Range Hydrocarbons (MRO)		417	249	434	249		
Total GRO-DRO		7500	249	8080	249		
Total TPH		7920	249	8510	249		

BRL - Below Reporting Limit

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

Jessica Wramer

urofins

Analytical Report 667503

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB 012920085 07.17.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

07.17.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 667503

PLU PC 17 TB

Xenco

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667503. 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 Eurofins Xenco, LLC. 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. 667503 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 667503

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH03	S	07.16.2020 09:23	0.5 ft	667503-001
BH03A	S	07.16.2020 09:37	2 ft	667503-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

Project ID: 012920085 Work Order Number(s): 667503

Xenco

Report Date: 07.17.2020
Date Received: 07.16.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **BH03** Matrix:

Date Received:07.16.2020 17:25

Lab Sample Id: 667503-001

Soil Date Collected: 07.16.2020 09:23

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB MAB

% Moisture:

Analyst:

Date Prep:

07.17.2020 13:00

Basis:

Wet Weight

Seq Number: 3132011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	126	9.94	mg/kg	07.17.2020 14:57		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Basis:

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 07.17.2020 14:30 Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	901	249		mg/kg	07.17.2020 16:40		5
Diesel Range Organics (DRO)	C10C28DRO	6600	249		mg/kg	07.17.2020 16:40		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	417	249		mg/kg	07.17.2020 16:40		5
Total GRO-DRO	PHC628	7500	249		mg/kg	07.17.2020 16:40		5
Total TPH	PHC635	7920	249		mg/kg	07.17.2020 16:40		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	135	%	70-135	07.17.2020 16:40		
o-Terphenyl		84-15-1	105	%	70-135	07.17.2020 16:40		



LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **BH03**

3H03

Matrix: Soil

Date Received:07.16.2020 17:25

Lab Sample Id: 667503-001

Date Collected: 07.16.2020 09:23

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech:

MAB

Analyst: MAB

Date Prep:

07.17.2020 10:42

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.0998	0.0998		mg/kg	07.17.2020 15:58	U	200
Toluene	108-88-3	0.467	0.399		mg/kg	07.17.2020 15:58		200
Ethylbenzene	100-41-4	1.25	0.399		mg/kg	07.17.2020 15:58		200
m,p-Xylenes	179601-23-1	8.95	0.798		mg/kg	07.17.2020 15:58		200
o-Xylene	95-47-6	5.22	0.399		mg/kg	07.17.2020 15:58		200
Total Xylenes	1330-20-7	14.2	0.399		mg/kg	07.17.2020 15:58		200
Total BTEX		15.9	0.0998		mg/kg	07.17.2020 15:58		200
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	95	%	70-130	07.17.2020 15:58		
4-Bromofluorobenzene		460-00-4	105	%	70-130	07.17.2020 15:58		



LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: BH03A Matrix:

Date Received:07.16.2020 17:25

Lab Sample Id: 667503-002

Soil Date Collected: 07.16.2020 09:37

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep: 07.17.2020 13:00 Basis:

Wet Weight

Seq Number: 3132011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	467	10.1	mg/kg	07.17.2020 15:14		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 07.17.2020 14:30 Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1200	249		mg/kg	07.17.2020 16:40		5
Diesel Range Organics (DRO)	C10C28DRO	6880	249		mg/kg	07.17.2020 16:40		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	434	249		mg/kg	07.17.2020 16:40		5
Total GRO-DRO	PHC628	8080	249		mg/kg	07.17.2020 16:40		5
Total TPH	PHC635	8510	249		mg/kg	07.17.2020 16:40		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	132	%	70-135	07.17.2020 16:40		
o-Terphenyl		84-15-1	103	%	70-135	07.17.2020 16:40		

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: BH03A

Matrix: Soil Date Received:07.16.2020 17:25

Lab Sample Id: 667503-002

Date Collected: 07.16.2020 09:37

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep:

07.17.2020 10:42

Wet Weight Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.0996	0.0996		mg/kg	07.17.2020 16:20	U	200
Toluene	108-88-3	3.00	0.398		mg/kg	07.17.2020 16:20		200
Ethylbenzene	100-41-4	5.98	0.398		mg/kg	07.17.2020 16:20		200
m,p-Xylenes	179601-23-1	56.1	0.797		mg/kg	07.17.2020 16:20		200
o-Xylene	95-47-6	15.7	0.398		mg/kg	07.17.2020 16:20		200
Total Xylenes	1330-20-7	71.8	0.398		mg/kg	07.17.2020 16:20		200
Total BTEX		80.8	0.0996		mg/kg	07.17.2020 16:20		200
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.17.2020 16:20	
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.17.2020 16:20	



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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit. J
- Analyte was not detected.
- 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.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS

Matrix Spike

MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Flag

Flag

Flag

Flag

QC Summary 667503

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300

Prep Method:

E300P

Analysis

Units

Seg Number: 3132011 Matrix: Solid Date Prep: 07.17.2020 MB Sample Id:

LCS

LCS

7707602-1-BLK LCS Sample Id: 7707602-1-BKS LCSD Sample Id: 7707602-1-BSD LCSD

LCSD

Limits

Parameter Result Amount Result %Rec Result %Rec Limit Date Chloride <10.0 250 255 102 90-110 20 07.17.2020 14:46 266 106 4 mg/kg

Analytical Method: Chloride by EPA 300

Matrix: Soil

Spike

MB

Prep Method:

RPD

%RPD

E300P

Seq Number: 3132011 Date Prep: 07.17.2020 667503-001 S 667503-001 MS Sample Id: MSD Sample Id: 667503-001 SD Parent Sample Id:

Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec %Rec Limit Date Result

20 07.17.2020 15:03 Chloride 126 200 335 105 330 102 90-110 2 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132010

Matrix: Solid

SW8015P Prep Method:

Date Prep: 07.17.2020

MB Sample Id: LCS Sample Id: 7707598-1-BKS LCSD Sample Id: 7707598-1-BSD 7707598-1-BLK

Spike **RPD** MB LCS LCS %RPD Units Analysis LCSD LCSD Limits **Parameter** Result %Rec Limit Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 101 35 07.17.2020 14:31 < 50.0 1000 1010 1000 100 70-135 1 mg/kg Diesel Range Organics (DRO) < 50.0 1000 1150 115 1130 70-135 2 35 07.17.2020 14:31 113 mg/kg

MB MB LCS LCS LCSD Limits Units Analysis LCSD **Surrogate** Flag Flag Flag %Rec %Rec %Rec Date 07.17.2020 14:31 1-Chlorooctane 114 124 125 70-135 % o-Terphenyl 112 117 118 70-135 % 07.17.2020 14:31

Analytical Method: TPH by SW8015 Mod

Seq Number:

3132010

Matrix: Solid

Prep Method:

SW8015P

Date Prep: 07.17.2020

MB Sample Id: 7707598-1-BLK

MB **Parameter**

Result Motor Oil Range Hydrocarbons (MRO) < 50.0 Units

Analysis Date

07.17.2020 14:10 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132010

Parent Sample Id: 667506-001

Matrix: Soil MS Sample Id: 667506-001 S

SW8015P Prep Method:

Date Prep: 07.17.2020 MSD Sample Id: 667506-001 SD

Spike MS MS %RPD RPD Units Analysis Parent MSD MSD Limits **Parameter** Limit Result Amount Result %Rec Date Result %Rec Gasoline Range Hydrocarbons (GRO) 07.17.2020 15:34 < 50.0 999 915 92 940 35 94 70-135 3 mg/kg 07.17.2020 15:34 Diesel Range Organics (DRO) 102 1050 70-135 < 50.0 999 1020 105 3 35 mg/kg

MS MS **MSD** Units Analysis MSD Limits **Surrogate** Flag Date %Rec Flag %Rec 07.17.2020 15:34 1-Chlorooctane 118 122 70-135 % 07.17.2020 15:34 o-Terphenyl 108 110 70-135 %

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) | [D] = 100 * (C) / [B]

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

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result

= MSD/LCSD Result

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

QC Summary 667503

LT Environmental, Inc.

PLU PC 17 TB

Prep Method: SW5035A Analytical Method: BTEX by EPA 8021B Seq Number: 3132013 Matrix: Solid Date Prep: 07.17.2020 LCS Sample Id: 7707605-1-BKS LCSD Sample Id: 7707605-1-BSD MB Sample Id: 7707605-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.112	112	0.118	118	70-130	5	35	mg/kg	07.17.2020 11:38	
Toluene	< 0.00200	0.100	0.108	108	0.114	114	70-130	5	35	mg/kg	07.17.2020 11:38	
Ethylbenzene	< 0.00200	0.100	0.103	103	0.109	109	71-129	6	35	mg/kg	07.17.2020 11:38	
m,p-Xylenes	< 0.00400	0.200	0.209	105	0.220	110	70-135	5	35	mg/kg	07.17.2020 11:38	
o-Xylene	< 0.00200	0.100	0.101	101	0.107	107	71-133	6	35	mg/kg	07.17.2020 11:38	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	98		ç	9		100	1	70	-130	%	07.17.2020 11:38	
4-Bromofluorobenzene	99		ç	98		102		70	-130	%	07.17.2020 11:38	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A Seq Number: 3132013 Matrix: Soil Date Prep: 07.17.2020 MS Sample Id: 667506-001 S MSD Sample Id: 667506-001 SD Parent Sample Id: 667506-001

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.125	125	0.121	121	70-130	3	35	mg/kg	07.17.2020 12:21	
Toluene	< 0.00200	0.0998	0.118	118	0.113	113	70-130	4	35	mg/kg	07.17.2020 12:21	
Ethylbenzene	< 0.00200	0.0998	0.110	110	0.105	105	71-129	5	35	mg/kg	07.17.2020 12:21	
m,p-Xylenes	< 0.00399	0.200	0.222	111	0.212	106	70-135	5	35	mg/kg	07.17.2020 12:21	
o-Xylene	< 0.00200	0.0998	0.108	108	0.103	103	71-133	5	35	mg/kg	07.17.2020 12:21	

Surrogate	MS %Rec	Flag	MSD %Rec	Flag	Limits	Units	Date
1,4-Difluorobenzene	100		99		70-130	%	07.17.2020 12:21
4-Bromofluorobenzene	103		98		70-130	%	07.17.2020 12:21

eurofins Environment Testing

Certificate of Analysis Summary 667955

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: Contact:

012920085

Date Received in Lab: Wed 07.22.2020 16:32

Dan Moir

Report Date: 07.23.2020 13:24

Project Location:

Eddy County

Project Manager: Jessica Kramer

	Lab Id:	667955-001	1			
	Field Id:	ВН03В				
Analysis Requested	Depth:	3- ft				
	Matrix:	SOIL				
	Sampled:	07.17.2020 08	₹•36			
BTEX by EPA 8021B	-					
DIEA DY EFA 8021B	Extracted:	07.22.2020 17				
	Analyzed:	07.22.2020 22				
	Units/RL:	mg/kg	RL			
Benzene			0.00500			
Toluene			0.0200			
Ethylbenzene			0.0200			
m,p-Xylenes		6.12	0.0400			
o-Xylene		1.79	0.0200			
Total Xylenes			0.0200			
Total BTEX		8.78 0.	0.00500			
Chloride by EPA 300	Extracted:	07.22.2020 17	7:54			
	Analyzed:	07.23.2020 05	5:29			
	Units/RL:	mg/kg	RL			
Chloride		462	9.96			
TPH by SW8015 Mod	Extracted:	07.22.2020 16	5:50			
	Analyzed:	07.22.2020 19	9:20			
	Units/RL:	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		571	50.2			
Diesel Range Organics (DRO)		4250	50.2			
Motor Oil Range Hydrocarbons (MRO)		228	50.2			
Total GRO-DRO		4820	50.2			
Total TPH		5050	50.2			

BRL - Below Reporting Limit

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

Jessica Vramer

Analytical Report 667955

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB 012920085 07.23.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.23.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 667955

PLU PC 17 TB

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667955. 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 Eurofins Xenco, LLC. 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. 667955 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Veramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 667955

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample IdMatrixDate CollectedSample DepthLab Sample IdBH03BS07.17.2020 08:363 ft667955-001

CASE NARRATIVE

Page 87 of 152

💸 eurofins **Environment Testing** Xenco

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

Project ID: Report Date: 07.23.2020 012920085 Work Order Number(s): 667955 Date Received: 07.22.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: BH03B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667955-001

Date Collected: 07.17.2020 08:36

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

07.22.2020 17:54

Basis:

Wet Weight

Seq Number: 3132399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	462	9.96	mg/kg	07.23.2020 05:29		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: Analyst: DTH DTH

Date Prep:

07.22.2020 16:50

% Moisture: Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	571	50.2		mg/kg	07.22.2020 19:20		1
Diesel Range Organics (DRO)	C10C28DRO	4250	50.2		mg/kg	07.22.2020 19:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	228	50.2		mg/kg	07.22.2020 19:20		1
Total GRO-DRO	PHC628	4820	50.2		mg/kg	07.22.2020 19:20		1
Total TPH	PHC635	5050	50.2		mg/kg	07.22.2020 19:20		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	125	%	70-135	07.22.2020 19:20		
o-Terphenyl		84-15-1	112	%	70-135	07.22.2020 19:20		

Xenco

Certificate of Analytical Results 667955

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **BH03B**

Matrix: Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667955-001

Date Collected: 07.17.2020 08:36

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

07.22.2020 22:17

Tech:

MAB

% Moisture: Basis:

Analyst: MAB

Date Prep:

07.22.2020 17:00

Wet Weight

Seq Number: 3132403

1,4-Difluorobenzene

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00500	0.00500		mg/kg	07.22.2020 22:17	U	1
Toluene	108-88-3	0.441	0.0200		mg/kg	07.22.2020 22:17		1
Ethylbenzene	100-41-4	0.432	0.0200		mg/kg	07.22.2020 22:17		1
m,p-Xylenes	179601-23-1	6.12	0.0400		mg/kg	07.22.2020 22:17		1
o-Xylene	95-47-6	1.79	0.0200		mg/kg	07.22.2020 22:17		1
Total Xylenes	1330-20-7	7.91	0.0200		mg/kg	07.22.2020 22:17		1
Total BTEX		8.78	0.00500		mg/kg	07.22.2020 22:17		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	130	%	70-130	07.22.2020 22:17		

96

%

70-130

540-36-3



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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- 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.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

Matrix Spike

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

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 667955

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300

Seq Number: 3132399

7707895-1-BLK

Matrix: Solid

E300P Prep Method:

07.22.2020 Date Prep:

7707895-1-BSD

MB Sample Id:

LCS Sample Id:

7707895-1-BKS

269

LCSD Sample Id:

Parameter

Chloride

MB Spike Result Amount <10.0 250

LCS LCS Result %Rec

261

LCSD LCSD Result %Rec

108

Limits 90-110

RPD %RPD Limit

3

20

Units Analysis Date

Flag 07.23.2020 02:58

Analytical Method: Chloride by EPA 300

3132399

Matrix: Soil

104

Prep Method: Date Prep: 07.22.2020

E300P

Seq Number: Parent Sample Id:

667904-050

667904-050 S MS Sample Id:

MSD Sample Id: 667904-050 SD

Parameter

Parent Spike Result Amount

MS MS Result %Rec

MSD MSD %Rec Result

Limits %RPD RPD Units

mg/kg

Analysis

Chloride

7470

201 7680 104

7670

101 90-110

Limit 20 0

mg/kg

Flag Date 07.23.2020 03:15

Analytical Method: Chloride by EPA 300

3132399

200

Prep Method:

E300P

Seq Number: Parent Sample Id:

667904-060

Matrix: Soil

MS

105

MS Sample Id:

667904-060 S

Date Prep: 07.22.2020

MSD Sample Id: 667904-060 SD

07.23.2020 04:33

Parameter

Chloride

Spike **Parent** Result Amount

129

MS Result %Rec 338

MSD Result 338

MSD Limits %Rec 105 90-110

RPD %RPD Limit 0 20

Units

mg/kg

Analysis Flag Date

Analytical Method: TPH by SW8015 Mod

3132405

Prep Method:

SW8015P

Seq Number: MB Sample Id:

7707899-1-BLK

Matrix: Solid LCS Sample Id: 7707899-1-BKS

07.22.2020 Date Prep:

LCSD Sample Id: 7707899-1-BSD

MB **Parameter** Gasoline Range Hydrocarbons (GRO)

Spike Result Amount < 50.0 1000

LCS Result

LCS %Rec

LCSD LCSD Limits Result %Rec

RPD %RPD

Limits

70-135

70-135

Units Analysis

Diesel Range Organics (DRO)

< 50.0 1000

935 1040

94 1010 104 1120

Flag

101 112

70-135

LCSD

Flag

Limit 35

Date

Surrogate

Analytical Method: TPH by SW8015 Mod

3132405

MBMB %Rec Flag

LCS

%Rec

122

110

LCS

LCSD

%Rec

126

118

70-135

8 35 7

07.22.2020 10:11 mg/kg mg/kg

Units

%

%

07.22.2020 10:11

Analysis

Date

07.22.2020 10:11

07.22.2020 10:11

1-Chlorooctane o-Terphenyl

108 109

Matrix: Solid

SW8015P

Prep Method: Date Prep:

Parameter

Seq Number:

MB

MB Sample Id: 7707899-1-BLK

07.22.2020

Flag

Flag

Motor Oil Range Hydrocarbons (MRO)

Result < 50.0

mg/kg

Units

07.22.2020 09:50

Analysis

Date

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

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

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result = MSD/LCSD Result

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

Flag

Flag

QC Summary 667955

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: TPH by SW8015 Mod

Seg Number:

Parent Sample Id:

667902-007

Prep Method:

SW8015P

3132405 Matrix: Soil Date Prep: 07.22.2020

> MS Sample Id: 667902-007 S

MSD Sample Id: 667902-007 SD

RPD **Parent** Spike MS MS Limits %RPD Units Analysis MSD **MSD Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.0 1000 35 07.22.2020 14:42 863 86 878 88 70-135 2 mg/kg 07.22.2020 14:42 70-135 2 Diesel Range Organics (DRO) < 50.0 1000 978 98 959 35 mg/kg 96

MSD Analysis MS MS MSD Limits Units **Surrogate** Flag Flag Date %Rec %Rec 07.22.2020 14:42 1-Chlorooctane 115 117 70-135 % 07.22.2020 14:42 o-Terphenyl 110 105 70-135 %

Analytical Method: BTEX by EPA 8021B

3132403 Seq Number:

Prep Method:

SW5035A

Date Prep: 07.22.2020

Matrix: Solid LCS Sample Id: 7707875-1-BKS LCSD Sample Id: 7707875-1-BSD MB Sample Id: 7707875-1-BLK MB Spike LCS LCS LCSD Limits %RPD **RPD** Units Analysis LCSD

Parameter Result Amount Result %Rec Result %Rec Limit Date 07.22.2020 15:28 < 0.00200 0.100 0.115 115 0.122 70-130 35 Benzene 122 6 mg/kg 07.22.2020 15:28 Toluene < 0.00200 0.100 0.110 110 0.116 116 70-130 5 35 mg/kg 07.22.2020 15:28 Ethylbenzene 0.100 0.102 102 0.108 108 71-129 35 < 0.00200 6 mg/kg 07.22.2020 15:28 m,p-Xylenes < 0.00400 0.200 0.206 103 0.218 109 70-135 6 35 mg/kg 102 07.22.2020 15:28 < 0.00200 0.100 0.102 0.108 108 71-133 35 o-Xylene mg/kg

MB MB LCS LCS LCSD Limits Units LCSD Analysis Surrogate %Rec Flag %Rec Flag Flag Date %Rec 07.22.2020 15:28 1,4-Difluorobenzene 101 100 100 70-130 % 07.22.2020 15:28 70-130 % 4-Bromofluorobenzene 103 102 102

Analytical Method: BTEX by EPA 8021B

Seg Number: 3132403 Parent Sample Id:

667902-007

Matrix: Soil

MS Sample Id: 667902-007 S

SW5035A Prep Method:

Date Prep: 07.22.2020

MSD Sample Id: 667902-007 SD

RPD Parent Spike MS MS MSD **MSD** Limits %RPD Units Analysis Flag **Parameter** Limit Date Result Amount Result %Rec %Rec Result 07.22.2020 16:32 < 0.00199 0.0996 0.125 126 0.113 70-130 10 35 Benzene 113 mg/kg 07.22.2020 16:32 70-130 35 Toluene < 0.00199 0.0996 0.117 117 0.106 106 10 mg/kg Ethylbenzene < 0.00199 0.0996 0.110 110 0.0989 99 71-129 11 35 07.22.2020 16:32 mg/kg 35 07.22.2020 16:32 m,p-Xylenes < 0.00398 0.199 0.224 113 0.200 101 70-135 11 mg/kg < 0.00199 0.0996 0.110 110 0.0985 71-133 35 mg/kg 07.22.2020 16:32 o-Xylene 99 11

MS MS **MSD MSD** Limits Units Analysis Surrogate Flag Flag %Rec %Rec Date 07.22.2020 16:32 1,4-Difluorobenzene 99 98 70-130 % 07.22.2020 16:32 4-Bromofluorobenzene 103 100 70-130 %

= MSD/LCSD Result

ග

Revised Date 022619 Rev. 2019.1

XIINCO

Chain of Custody

Work Order No: (147955)

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 Lubbook,TX (806) 794-1296 Crasibad, NM (432) 704-5440 NM (432) NM (4

Received by: (Signature) Date/Time			00	-	((1
			2/12/10/27/2	17/27		6/2		2/4
		Relinquished by: (Signature)	Date/Time		Received by: (Signature)	Received	kellindulened by: (Signature)	kelindulene
	d the control charted.	f 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 samples. A minimum charge of \$75.00 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.	enses incurred by the clienneo, but not analyzed. The	losses or exp ubmitted to Xe	ame any responsibility for any harge of \$5 for each sample s	samples and shall not assied to each project and a c	will be liable only for the cost of num charge of \$75.00 will be appl	Kenco. A mini
Ag SiO2 Na Sr TI Sn U V Zn 1631/245.1/7470/7471:Hg	Mn Mo Ni K Se Ag SiO2	Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni olice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco. Its affiliates and subcontractors. It accounts to the company to Xenco. Its affiliates and subcontractors.	Sb As Ba Be Cd C	8RCRA S	TCLP / SPLP 6010: 8RCRA sa valid purchase order from client com	be analyzed nent of samples constitute	Circle Method(s) and Metal(s) to be analyzed signature of this document and relinquishment of samples or	Circle
)n.	Total 200.7 / 6010 200.8 / 6020	Total 2
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Sample Comments			TPH BTE	Numb	Time Depth	Matrix Sampled	Sample Identification	San
TAT starts the day received by the lab, if received by 4:00pm			X (er of	Total Containers:	N/A	Sample Custody Seals: Yes No.	Sample (
Zn Acetate+ NaOH: Zn			(E		Correction Factor: -0.1	N/A	Cooler Custody Seals: Yes No	Cooler
NaOH: Na			PA	itain		No a	Received Intact: Yes	70
HCL: HL			C		5		Temperature (°C):	Tei
H2S04: H2				No.	Wet Ice: You	Temp Blank: Mes No		SAMPLE RECEIPT
HNO3: HN			80			Quote #:	PO #:	
None: NO						milh	Sampler's Name: Fatima	Sample
MeOH: Me			(1)	brs	T	unty	Project Location Eddy CC	Project
September 1 septem	-	100		Pres. Code	Routine	080	Project Number: 0129200	Project
Drosponotino Online	TST			nd	Turn Around	177B	Project Name: PLU PC	Proje
ADaPT Other:	Deliverables: EDD	moircal Hanvicon	140	nitha	Email: 16mr	236-3849	Phone: (432)23	
Reporting:Level III PST/UST TRRP I evel IV	Reporting:Level II	Nm 99220	Carlo	City, State ZIP:	105	24,TX 79	City, State ZIP: MICHAI	City,
State of Project:	State of Project:	7 000 5+	3104 E	Address:	1 2	Jorth A St	Address: 3300 N	
T Book Crue Collinells	Program: HCT/DC1	3	XTOF	Company Name:	Permian Office	Environmental, Inc.	Company Name: LT E OVI	Compa
Commonto			TUO!	Bill to: (if different)	Bil	7017	Project Manager: Dan M	Project
www.xenco.com Page \ of		13) 620-2000 West Palm Beach, FL (561) 689-6701	449-8800 Tampa,FL (8	IIII (1/0)	113) 620-2000 West Palm	. 110)	

Lab

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 07.22.2020 04.32.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 667955

Temperature Measuring device used: T-NM-007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1.4	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?		Yes	
#6*Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquish	ed/ received?	Yes	
#10 Chain of Custody agrees with sample la	bels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated to	est(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headspa	ace?	N/A	

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Analyst:

PH Device/Lot#:

Checklist completed by:

Date: <u>07.22.2020</u>

Checklist reviewed by:

Date: 07.23.2020

Received by OCD: 8/10/2020 10:08:08 AM 💸 eurofins

Environment Testing

Certificate of Analysis Summary 667959

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: Contact:

012920085

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Wed 07.22.2020 16:32

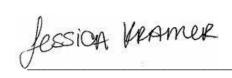
Report Date: 07.24.2020 14:20

Project Manager: Jessica Kramer

	Lab Id:	667959-0	001	667959-0	02	667959-0	003	667959-0	004	667959-0	005	667959-0	006
Analysis Requested	Field Id:	PH01		PH01A	\	PH02		PH02A		PH03		PH03A	
Anaiysis Requesteu	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL	,	SOIL		SOIL	,	SOIL	,	SOIL		SOIL	
	Sampled:	07.16.2020	10:35	07.16.2020	10:38	07.16.2020	11:15	07.16.2020	11:18	07.16.2020	11:40	07.16.2020	11:52
BTEX by EPA 8021B	Extracted:	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45
	Analyzed:	07.23.2020	17:15	07.23.2020	17:35	07.23.2020	17:56	07.23.2020	18:16	07.23.2020	19:32	07.23.2020	19:52
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
Toluene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
Ethylbenzene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
m,p-Xylenes		< 0.00397	0.00397	< 0.00396	0.00396	< 0.00398	0.00398	< 0.00399	0.00399	< 0.00404	0.00404	< 0.00398	0.00398
o-Xylene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
Total Xylenes		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
Total BTEX		<0.00198 0.00198		< 0.00198	0.00198	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199
Chloride by EPA 300	Extracted:	07.23.2020 13:45		07.23.2020 13:45		07.23.2020	13:45	07.23.2020	13:45	07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020	16:43	07.23.2020	16:48	07.23.2020	16:54	07.23.2020	17:00	07.23.2020	17:16	07.23.2020	17:22
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		478	9.94	1420	50.2	67.3	9.98	156	10.0	122	10.1	374	10.1
TPH by SW8015 Mod	Extracted:	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00
	Analyzed:	07.23.2020	16:11	07.23.2020	16:31	07.23.2020	16:51	07.23.2020	17:11	07.23.2020	17:51	07.23.2020	18:11
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	< 50.0	50.0	< 50.2	50.2	<50.0	50.0	<50.2	50.2
Diesel Range Organics (DRO)		<49.8	49.8	< 50.0	50.0	< 50.0	50.0	< 50.2	50.2	< 50.0	50.0	< 50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	< 50.0	50.0	< 50.0	50.0	< 50.2	50.2	< 50.0	50.0	< 50.2	50.2
Total GRO-DRO		<49.8	49.8	< 50.0	50.0	< 50.0	50.0	< 50.2	50.2	< 50.0	50.0	<50.2	50.2
Total TPH		<49.8	49.8	< 50.0	50.0	< 50.0	50.0	< 50.2	50.2	< 50.0	50.0	< 50.2	50.2

BRL - Below Reporting Limit

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



Received by OCD: 8/10/2020 10:08:08 AM 💸 eurofins

Environment Testing

Certificate of Analysis Summary 667959

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: Contact:

012920085

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Wed 07.22.2020 16:32

Report Date: 07.24.2020 14:20

Project Manager: Jessica Kramer

	Lab Id:	667959-0	007	667959-0	008	667959-0	009	667959-	010	667959-0	11	667959-0	012
Analysis Requested	Field Id:	PH04		PH04A	A	PH05		PH05A		PH06		PH06A	
Anaiysis Requesieu	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL	,	SOIL		SOIL		SOIL	
	Sampled:	07.16.2020	12:45	07.16.2020	12:48	07.16.2020	14:03	07.16.2020	14:06	07.16.2020	14:22	07.16.2020	14:28
BTEX by EPA 8021B	Extracted:	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45
	Analyzed:	07.23.2020	20:13	07.23.2020	20:33	07.23.2020	20:54	07.23.2020	21:14	07.23.2020	21:34	07.23.2020	21:55
	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	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200
Toluene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200
Ethylbenzene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200
m,p-Xylenes		< 0.00401	0.00401	< 0.00400	0.00400	< 0.00401	0.00401	< 0.00402	0.00402	< 0.00401	0.00401	< 0.00401	0.00401
o-Xylene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200
Total Xylenes		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200
Total BTEX		<0.00200 0.002		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200
Chloride by EPA 300	Extracted:	07.23.2020	13:45	07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020	17:28	07.23.2020 17:44		07.23.2020 17:50		07.23.2020 17:55		07.23.2020 18:01		07.23.2020 18:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		26.1	10.1	27.0	9.90	12.1	10.0	28.8	10.1	14.5	10.1	50.3	10.1
TPH by SW8015 Mod	Extracted:	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00	07.23.2020	16:00
	Analyzed:	07.23.2020	18:32	07.23.2020	18:52	07.23.2020	19:12	07.23.2020	19:32	07.23.2020	19:53	07.23.2020	20:13
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	< 50.0	50.0	< 50.0	50.0	<50.3	50.3	<50.2	50.2	<50.2	50.2
Diesel Range Organics (DRO)		< 50.1	50.1	< 50.0	50.0	< 50.0	50.0	<50.3	50.3	< 50.2	50.2	< 50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		< 50.1	50.1	< 50.0	50.0	< 50.0	50.0	<50.3	50.3	< 50.2	50.2	< 50.2	50.2
Total GRO-DRO		< 50.1	50.1	< 50.0	50.0	< 50.0	50.0	<50.3	50.3	< 50.2	50.2	< 50.2	50.2
Total TPH		< 50.1	50.1	< 50.0	50.0	< 50.0	50.0	<50.3	50.3	< 50.2	50.2	< 50.2	50.2

BRL - Below Reporting Limit

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



Analytical Report 667959

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB 012920085 07.24.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.24.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 667959

PLU PC 17 TB

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667959. 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 Eurofins Xenco, LLC. 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. 667959 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Veramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	07.16.2020 10:35	1 ft	667959-001
PH01A	S	07.16.2020 10:38	2 ft	667959-002
PH02	S	07.16.2020 11:15	1 ft	667959-003
PH02A	S	07.16.2020 11:18	2 ft	667959-004
PH03	S	07.16.2020 11:40	1 ft	667959-005
PH03A	S	07.16.2020 11:52	2 ft	667959-006
PH04	S	07.16.2020 12:45	1 ft	667959-007
PH04A	S	07.16.2020 12:48	2 ft	667959-008
PH05	S	07.16.2020 14:03	1 ft	667959-009
PH05A	S	07.16.2020 14:06	2 ft	667959-010
PH06	S	07.16.2020 14:22	1 ft	667959-011
PH06A	S	07.16.2020 14:28	2 ft	667959-012

Page 100 of 152

CASE NARRATIVE

eurofins Environment Testing Xenco

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

 Project ID:
 012920085
 Report Date:
 07.24.2020

 Work Order Number(s):
 667959
 Date Received:
 07.22.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Xenco

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH01** Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667959-001

Date Collected: 07.16.2020 10:35

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

Wet Weight

Seq Number: 3132524

MAB

Date Prep:

07.23.2020 13:45

Basis:

Result **Parameter** Cas Number RLUnits **Analysis Date** Dil Flag Chloride 16887-00-6 478 9.94 mg/kg 07.23.2020 16:43 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

07.23.2020 16:11

07.23.2020 16:11

Tech:

DTH

% Moisture:

Analyst:

DTH

07.23.2020 16:00 Date Prep:

Basis:

Wet Weight

Seq Number: 3132503

1-Chlorooctane

o-Terphenyl

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8		mg/kg	07.23.2020 16:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8		mg/kg	07.23.2020 16:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8		mg/kg	07.23.2020 16:11	U	1
Total GRO-DRO	PHC628	<49.8	49.8		mg/kg	07.23.2020 16:11	U	1
Total TPH	PHC635	<49.8	49.8		mg/kg	07.23.2020 16:11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

111

107

%

%

70-135

70-135

111-85-3

84-15-1

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH01** Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-001

Soil Date Collected: 07.16.2020 10:35

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	07.23.2020 17:15	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	07.23.2020 17:15	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	07.23.2020 17:15	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	07.23.2020 17:15	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	07.23.2020 17:15	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	07.23.2020 17:15	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	07.23.2020 17:15	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	105	%	70-130	07.23.2020 17:15		
1,4-Difluorobenzene		540-36-3	101	%	70-130	07.23.2020 17:15		



LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH01A

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667959-002

Date Collected: 07.16.2020 10:38

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB

MAB

Date Prep: 07.23.2020 13:45 Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	1420	50.2	mg/kg	07.23.2020 16:48			_

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

07.23.2020 16:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	07.23.2020 16:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 16:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 16:31	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 16:31	U	1
Total TPH	PHC635	<50.0	50.0		mg/kg	07.23.2020 16:31	U	1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	103	%	70-135	07.23.2020 16:31
o-Terphenyl	84-15-1	111	%	70-135	07.23.2020 16:31



Xenco

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH01A Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-002

Soil Date Collected: 07.16.2020 10:38

Sample Depth: 2 ft

07.23.2020 17:35

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep: 07.23.2020 13:45 Basis:

Wet Weight

Seq Number: 3132516

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	07.23.2020 17:35	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	07.23.2020 17:35	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	07.23.2020 17:35	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	07.23.2020 17:35	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	07.23.2020 17:35	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	07.23.2020 17:35	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	07.23.2020 17:35	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	110	%	70-130	07.23.2020 17:35		

103

%

70-130

540-36-3



LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH02**

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667959-003

Date Collected: 07.16.2020 11:15

Sample Depth: 1 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

MAB Analyst:

Date Prep:

07.23.2020 13:45

% Moisture: Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	67.3	9.98	mg/kg	07.23.2020 16:54		1

Analytical Method: TPH by SW8015 Mod

Tech:

Analyst: DTH

DTH

Date Prep:

07.23.2020 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	07.23.2020 16:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 16:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 16:51	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 16:51	U	1
Total TPH	PHC635	<50.0	50.0		mg/kg	07.23.2020 16:51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	112	%	70-135	07.23.2020 16:51		
o-Terphenyl		84-15-1	110	%	70-135	07.23.2020 16:51		



Xenco

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH02** Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-003

Soil Date Collected: 07.16.2020 11:15

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	07.23.2020 17:56	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	07.23.2020 17:56	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	07.23.2020 17:56	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	07.23.2020 17:56	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	07.23.2020 17:56	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	07.23.2020 17:56	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	07.23.2020 17:56	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	07.23.2020 17:56		
4-Bromofluorobenzene		460-00-4	106	%	70-130	07.23.2020 17:56		



LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH02A Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-004

Soil Date Collected: 07.16.2020 11:18

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: MAB MAB

Date Prep: 07.23.2020 13:45 % Moisture:

Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	156	10.0	mg/kg	07.23.2020 17:00		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

07.23.2020 16:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	07.23.2020 17:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	07.23.2020 17:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	07.23.2020 17:11	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	07.23.2020 17:11	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	07.23.2020 17:11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	110	%	70-135	07.23.2020 17:11
o-Terphenyl	84-15-1	110	%	70-135	07.23.2020 17:11



Xenco

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH02A

Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-004

Matrix: Soil
Date Collected: 07.16.2020 11:18

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

Analyst:

MAB MAB

Date Prep:

07.23.2020 13:45

% Moisture: Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 18:16	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 18:16	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 18:16	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	07.23.2020 18:16	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 18:16	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 18:16	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 18:16	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	07.23.2020 18:16		
4-Bromofluorobenzene		460-00-4	103	%	70-130	07.23.2020 18:16		

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH03** Matrix:

Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-005

Date Collected: 07.16.2020 11:40

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Wet Weight

Analyst:

MAB

Seq Number: 3132524

Date Prep: 07.23.2020 13:45 Basis:

rarameter	Cas Number	Result	KL	Units	Analysis Date	riag	DII
Chloride	16887-00-6	122	10.1	mg/kg	07.23.2020 17:16		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

07.23.2020 16:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	07.23.2020 17:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 17:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 17:51	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 17:51	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	07.23.2020 17:51	U	1
Surrogate	C	Cas Number %	√ Recovery	Units	Limits	Analysis Date	Flag	

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH03** Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667959-005

Date Collected: 07.16.2020 11:40

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

MAB

% Moisture:

Tech:

Analyst:

MAB Date Prep: 07.23.2020 13:45

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	07.23.2020 19:32	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	07.23.2020 19:32	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	07.23.2020 19:32	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404		mg/kg	07.23.2020 19:32	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	07.23.2020 19:32	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	07.23.2020 19:32	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	07.23.2020 19:32	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Fla
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.23.2020 19:32	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.23.2020 19:32	



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH03A

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667959-006

Date Collected: 07.16.2020 11:52

07.23.2020 13:45

07.23.2020 16:00

Sample Depth: 2 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

% Moisture:

Analyst:

Tech:

Tech:

MAB Date Prep: Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	374	10.1	mg/kg	07.23.2020 17:22		1

Analytical Method: TPH by SW8015 Mod

DTH

Analyst: DTH

Seq Number: 3132503

Prep Method: SW8015P

% Moisture:

Basis:

Wet Weight

Cas Number **Parameter** Result RLUnits **Analysis Date** Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 < 50.2 50.2 07.23.2020 18:11 U mg/kg Diesel Range Organics (DRO) C10C28DRO 50.2 07.23.2020 18:11 < 50.2 U 1 mg/kg Motor Oil Range Hydrocarbons (MRO) PHCG2835 < 50.2 50.2 07.23.2020 18:11 U mg/kg 1 Total GRO-DRO PHC628 < 50.2 50.2 mg/kg 07.23.2020 18:11 U Total TPH PHC635 50.2 07.23.2020 18:11 U < 50.2 1 mg/kg Flag

Date Prep:

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	109	%	70-135	07.23.2020 18:11
o-Terphenyl	84-15-1	115	%	70-135	07.23.2020 18:11



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH03A Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-006

Soil Date Collected: 07.16.2020 11:52

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

MAB

% Moisture:

Tech: MAB

Analyst:

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	07.23.2020 19:52	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	07.23.2020 19:52	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	07.23.2020 19:52	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	07.23.2020 19:52	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	07.23.2020 19:52	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	07.23.2020 19:52	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	07.23.2020 19:52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	106	%	70-130	07.23.2020 19:52		
1,4-Difluorobenzene		540-36-3	103	%	70-130	07.23.2020 19:52		

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH04** Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-007

Soil Date Collected: 07.16.2020 12:45

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.1	10.1	mg/kg	07.23.2020 17:28		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

07.23.2020 18:32

Tech:

Total TPH

DTH

% Moisture:

Analyst:

Seq Number: 3132503

DTH

Date Prep: 07.23.2020 16:00 Basis:

mg/kg

Wet Weight

U

Flag

1

Cas Number **Parameter** Result RLUnits **Analysis Date** Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 < 50.1 50.1 07.23.2020 18:32 U mg/kg Diesel Range Organics (DRO) C10C28DRO 50.1 07.23.2020 18:32 < 50.1 U 1 mg/kg Motor Oil Range Hydrocarbons (MRO) PHCG2835 50.1 07.23.2020 18:32 U < 50.1 mg/kg 1 Total GRO-DRO PHC628 < 50.1 50.1 mg/kg 07.23.2020 18:32 U

50.1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	107	%	70-135	07.23.2020 18:32
o-Terphenyl	84-15-1	114	%	70-135	07.23.2020 18:32

< 50.1

PHC635



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH04**

Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-007

Soil Date Collected: 07.16.2020 12:45

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst:

MAB

Date Prep: 07.23.2020 13:45 Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 20:13	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 20:13	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 20:13	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	07.23.2020 20:13	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 20:13	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 20:13	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 20:13	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	07.23.2020 20:13		
1,4-Difluorobenzene		540-36-3	101	%	70-130	07.23.2020 20:13		



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH04A Lab Sample Id: 667959-008

Date Received:07.22.2020 16:32

Soil Date Collected: 07.16.2020 12:48

Sample Depth: 2 ft

Prep Method: E300P

% Moisture:

Wet Weight

Analytical Method: Chloride by EPA 300

MAB

Tech: Analyst:

MAB

Date Prep:

Matrix:

07.23.2020 13:45

Basis:

Seq Number: 3132524 **Parameter**

Result Cas Number RLUnits **Analysis Date** Dil Flag Chloride 16887-00-6 27.0 9.90 mg/kg 07.23.2020 17:44 1

Analytical Method: TPH by SW8015 Mod

 DTH

DTH

Date Prep:

07.23.2020 16:00

% Moisture:

Basis: Wet Weight

Prep Method: SW8015P

Seq Number: 3132503

Tech: Analyst:

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	07.23.2020 18:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 18:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 18:52	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 18:52	U	1
Total TPH	PHC635	<50.0	50.0		mg/kg	07.23.2020 18:52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	109	%	70-135	07.23.2020 18:52		
o-Terphenyl		84-15-1	115	%	70-135	07.23.2020 18:52		



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH04A**Lab Sample Id: 667959-008

Matrix:

Date Received:07.22.2020 16:32

Matrix: Soil
Date Collected: 07.16.2020 12:48

07.23.2020 13:45

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

MAB

% Moisture:

Tech: MAI

Analyst:

MAB Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 20:33	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 20:33	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 20:33	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	07.23.2020 20:33	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 20:33	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 20:33	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 20:33	U	1
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	
4 D CI 1	4	0.00.4	104	0/	70.100	07 22 2020 20 22		

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.23.2020 20:33	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.23.2020 20:33	



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH05 Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-009

Soil Date Collected: 07.16.2020 14:03

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.1	10.0	mg/kg	07.23.2020 17:50		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

Analyst:

DTH

07.23.2020 16:00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	07.23.2020 19:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 19:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 19:12	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 19:12	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	07.23.2020 19:12	U	1
Surrogate	C	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH05

Matrix:

460-00-4

Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-009

Date Collected: 07.16.2020 14:03

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

07.23.2020 20:54

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

07.23.2020 13:45

%

70-130

Basis:

Wet Weight

Seq Number: 3132516

4-Bromofluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 20:54	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 20:54	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 20:54	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	07.23.2020 20:54	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 20:54	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 20:54	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 20:54	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	4	540-36-3	103	%	70-130	07.23.2020 20:54		

104



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH05A Matrix:

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-010

Soil Date Collected: 07.16.2020 14:06

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep: 07.23.2020 13:45 Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.8	10.1	mg/kg	07.23.2020 17:55		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

Analyst: DTH

Date Prep: 07.23.2020 16:00 Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3		mg/kg	07.23.2020 19:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.3	50.3		mg/kg	07.23.2020 19:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.3	50.3		mg/kg	07.23.2020 19:32	U	1
Total GRO-DRO	PHC628	< 50.3	50.3		mg/kg	07.23.2020 19:32	U	1
Total TPH	PHC635	< 50.3	50.3		mg/kg	07.23.2020 19:32	U	1
Surrogate	•	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	111	%	70-135	07.23.2020 19:32
o-Terphenyl	84-15-1	115	%	70-135	07.23.2020 19:32



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH05A**

Matrix: Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-010

Date Collected: 07.16.2020 14:06

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	07.23.2020 21:14	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	07.23.2020 21:14	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	07.23.2020 21:14	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	07.23.2020 21:14	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	07.23.2020 21:14	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	07.23.2020 21:14	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	07.23.2020 21:14	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	106	%	70-130	07.23.2020 21:14		
1,4-Difluorobenzene		540-36-3	102	%	70-130	07.23.2020 21:14		



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH06** Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667959-011

Date Collected: 07.16.2020 14:22

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

MAB

Wet Weight

Analyst:

MAB Seq Number: 3132524 Date Prep: 07.23.2020 13:45 Basis:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.5	10.1	mg/kg	07.23.2020 18:01		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

Analyst:

DTH

Date Prep: 07.23.2020 16:00 Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	07.23.2020 19:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	07.23.2020 19:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	07.23.2020 19:53	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	07.23.2020 19:53	U	1
Total TPH	PHC635	<50.2	50.2		mg/kg	07.23.2020 19:53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH06**Lab Sample Id: 667959-011

106

Matrix: Soil

Date Received:07.22.2020 16:32

Date Collected: 07.16.2020 14:22

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

A by El A 6021D

% Moisture:

Tech: M

Analyst:

MAB MAB

Date Prep: 07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 21:34	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 21:34	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 21:34	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	07.23.2020 21:34	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 21:34	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 21:34	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 21:34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	07.23.2020 21:34		
1,4-Difluorobenzene		540-36-3	100	%	70-130	07.23.2020 21:34		



Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH06A**

Matrix: Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-012

Date Collected: 07.16.2020 14:28

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.3	10.1	mg/kg	07.23.2020 18:07		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

Analyst: D

Seq Number: 3132503

DTH

Date Prep: 07.23.2020 16:00

Basis:

Wet Weight

Cas Number **Parameter** Result RLUnits **Analysis Date** Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 < 50.2 50.2 07.23.2020 20:13 U mg/kg Diesel Range Organics (DRO) C10C28DRO 50.2 07.23.2020 20:13 < 50.2 U 1 mg/kg Motor Oil Range Hydrocarbons (MRO) PHCG2835 < 50.2 50.2 07.23.2020 20:13 U mg/kg 1 Total GRO-DRO PHC628 < 50.2 50.2 mg/kg 07.23.2020 20:13 U Total TPH PHC635 50.2 07.23.2020 20:13 U < 50.2 1 mg/kg Flag

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	103	%	70-135	07.23.2020 20:13
o-Terphenyl	84-15-1	111	%	70-135	07.23.2020 20:13

Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH06A

Matrix: Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667959-012

Date Collected: 07.16.2020 14:28

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 21:55	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 21:55	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 21:55	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	07.23.2020 21:55	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 21:55	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 21:55	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 21:55	U	1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1.4 D'Cl 1	_	10.26.2	100	0/	70 120	07 02 2020 21 55		

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.23.2020 21:55	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.23.2020 21:55	



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- 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.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Flag

Flag

Flag

QC Summary 667959

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300

3132524 Seq Number:

Matrix: Solid 7707935-1-BLK LCS Sample Id: 7707935-1-BKS

E300P Prep Method:

Date Prep: 07.23.2020

LCSD Sample Id: 7707935-1-BSD

LCS RPD MB Spike LCS Limits %RPD Units Analysis LCSD LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 106 273 90-110 20 07.23.2020 15:36 264 109 3 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

MB Sample Id:

Matrix: Soil

Prep Method:

%RPD

Limite

E300P

3132524 Date Prep: 07.23.2020 Parent Sample Id:

667958-001 S 667958-001 MS Sample Id:

MSD Sample Id: 667958-001 SD

Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec Result %Rec Limit Date

20 07.23.2020 15:52 Chloride 318 201 513 97 517 100 90-110 1 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3132524

Matrix: Soil

E300P Prep Method:

Date Prep: 07.23.2020 MS Sample Id: 667959-004 S MSD Sample Id: 667959-004 SD Parent Sample Id: 667959-004

MS

MS

Spike **RPD Parent** MSD **MSD** Analysis Flag **Parameter** Result Result Limit Date Amount %Rec Result %Rec Chloride 201 105 0 20 07.23.2020 17:05 156 367 367 105 90-110 mg/kg

Analytical Method: TPH by SW8015 Mod

Seg Number:

3132503

Matrix: Solid

SW8015P Prep Method:

07.23.2020 Date Prep:

Units

MB Sample Id: 7707980-1-BLK LCS Sample Id: 7707980-1-BKS LCSD Sample Id: 7707980-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 07.23.2020 12:50 942 94 984 35 < 50.0 1000 98 70-135 4 mg/kg 07.23.2020 12:50 Diesel Range Organics (DRO) 1050 105 1110 70-135 35 < 50.0 1000 111 6 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec %Rec Flag Flag Date Flag %Rec 07.23.2020 12:50 1-Chlorooctane 116 123 124 70-135 % 07.23.2020 12:50 o-Terphenyl 122 111 120 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3132503

Matrix: Solid

SW8015P Prep Method:

> Date Prep: 07.23.2020

MB Sample Id: 7707980-1-BLK

MB**Parameter**

Result

Analysis

Date

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

07.23.2020 12:30

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) | [D] = 100 * (C) / [B]

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

LCS = Laboratory Control Sample = Parent Result

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

QC Summary 667959

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: TPH by SW8015 Mod

Seg Number: 3132503

667958-001

Matrix: Soil

SW8015P Prep Method:

Date Prep: 07.23.2020

MS Sample Id: 667958-001 S Parent Sample Id:

MSD Sample Id: 667958-001 SD

RPD **Parent** Spike MS MS Limits %RPD Units Analysis MSD MSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.1 1000 977 98 35 07.23.2020 13:50 986 98 70-135 1 mg/kg 1070 107 1090 70-135 07.23.2020 13:50 Diesel Range Organics (DRO) < 50.1 1000 108 2 35 mg/kg

MS MS MSD MSD Limits Units Analysis **Surrogate** Flag Flag Date %Rec %Rec 07.23.2020 13:50 1-Chlorooctane 128 127 70-135 % 07.23.2020 13:50 o-Terphenyl 116 119 70-135 %

Analytical Method: BTEX by EPA 8021B

3132516 Seq Number:

Matrix: Solid

Prep Method:

SW5035A

Date Prep: 07.23.2020 LCSD Sample Id:

MB Sample Id: 7707934-1-BLK LCS Sample Id: 7707934-1-BKS

7707934-1-BSD

Flag

Flag

MB Spike LCS LCS LCSD Limits %RPD **RPD** Units Analysis LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date 07.23.2020 13:16 102 < 0.00200 0.100 0.102 0.103 70-130 35 Benzene 103 1 mg/kg 07.23.2020 13:16 Toluene < 0.00200 0.100 0.0973 97 0.0982 98 70-130 1 35 mg/kg 07.23.2020 13:16 Ethylbenzene 0.100 0.102 102 0.104 104 71-129 2 35 < 0.00200 mg/kg 07.23.2020 13:16 m,p-Xylenes < 0.00400 0.200 0.209 105 0.211 106 70-135 35 1 mg/kg 0.103 103 07.23.2020 13:16 < 0.00200 0.100 0.104 71-133 35 o-Xylene 104 mg/kg

MB MB LCS LCS LCSD Limits Units LCSD Analysis Surrogate %Rec Flag %Rec Flag %Rec Flag Date 07.23.2020 13:16 1,4-Difluorobenzene 101 98 96 70-130 % 07.23.2020 13:16 98 100 70-130 % 4-Bromofluorobenzene 108

Analytical Method: BTEX by EPA 8021B

Seg Number: 3132516 Parent Sample Id:

667958-001

Matrix: Soil

MS Sample Id: 667958-001 S Prep Method:

SW5035A

Date Prep: 07.23.2020

MSD Sample Id: 667958-001 SD

RPD Parent Spike MS MS MSD **MSD** Limits %RPD Units Analysis **Parameter** Limit Date Result Amount Result %Rec %Rec Result 07.23.2020 13:57 < 0.00202 0.101 0.102 101 0.108 108 70-130 35 Benzene 6 mg/kg 07.23.2020 13:57 0.0972 70-130 35 Toluene < 0.00202 0.101 96 0.103 103 6 mg/kg Ethylbenzene < 0.00202 0.101 0.101 100 0.107 107 71-129 35 07.23.2020 13:57 6 mg/kg 35 07.23.2020 13:57 m,p-Xylenes < 0.00403 0.202 0.207 102 0.218 109 70-135 5 mg/kg < 0.00202 0.101 0.103 102 0.108 71-133 5 35 mg/kg 07.23.2020 13:57 o-Xylene 108

MS MS MSD **MSD** Limits Units Analysis Surrogate Flag Flag %Rec %Rec Date 07.23.2020 13:57 1,4-Difluorobenzene 95 98 70-130 % 07.23.2020 13:57 4-Bromofluorobenzene 104 101 70-130 %

= MSD/LCSD Result

Chain of Custody

Work Order No:

Phoenix AZ (480) 355-0900 Atlanta GA (770) AAG Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440 Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

Project Name:		Phone:	City, State ZIP:	Address:	Company Name: LI FOULO	90	Project Manager
Project Name: DICLOC 17 TO		Phone: (432)236-3849	City, State ZIP: Midland, TX 79705	Address: 3300 North A Street	LI Environmental, Inc., Permion	101	Project Manager: Don More
H	AUDITONIA THE PROPERTY OF THE	Email: Semitholitony can discussed	City, State ZIP: Carlshir NIM 98220	Address: 3104 F Grann St	contractal, Inc. Remian Office company Name: XTO Fine ray Inc.	Bill to: (if different)	(aii)pa,FL (o13) b20-2000 West Palm Beach, FL (561) 689-6701
	V.COM Deliverables: EDD ADaPT Other:		Reporting:Level	State of Project:	Program: UST/PST DDD Brownfield DDD	Work Order Commants	1, FL (561) 689-6701 www.xenco.com Page of

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			Sh21	PHOH
		21	1152	PH03A
		-	1140	PHOS
		5	8111	PH02A
			1115	PH02
		2.	1038	PHOIA
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ts	TPH BTE Chla	Depth	Date Time Sampled Sampled	Sample Identification Matrix
TAT starts the day received by the lab, if received by 4:00pm	x (7	Total Containers:	Sample Custody Seals: Yes No N/A
Zn Acetate+ NaOH: Zn	EP	-07	Correction Factor:	Cooler Custody Seals: Yes No N/A
NaOH: Na	A	400	ナームノイ	Received Intact: (rés No
HCL: HL	0:		Thermometer ID	Temperature (°C):
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MeOH: Me		T.	Rush:	Project Location Eddy Column
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Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	200 5000	001110	1 Stroot	CO
Work Order Comments	VID Francisco		al loc. Permino Office	Company Name: LT Environmon-
	no Killo Hroll	Bill to: (if different)		Project Manager: Jan 1101

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 service. A minimum charge of \$75.00 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. 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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K

Se

Ag SiO2 Na Sr Tl Sn U V Zn

1631 / 245.1 / 7470 / 7471 : Hg

Received by: (Signature)

7/22/20

16:32

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinqyished by: (Signature)

Total 200.7 / 6010

200.8 / 6020:

9041

in

Circle Method(s) and Metal(s) to be analyzed

Page 129 of 152



Chain of Custody

Work Order No:

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

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n Sr Tl Sn U V Zn 1631/245.1/7470/7471:Hg	K Se Ag SiO2 Na	B Cd Ca Cr Co Cu Fe Pb Mg Mn N Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	1 Al Sb As Ba Be B Sb As Ba Be Cd Cr	Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni Se Ag TI U Total Control of this document and relinquishment of samples constitutes a valid purchase order from client company to Xocca in control in the control of this document and relinquishment of samples constitutes a valid purchase order from client company to Xocca in control of the control	Circle Method(s) and Metal(s) to be analyzed ce: Signature of this document and relinquishment of samples or
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Zn Acetate+ NaOH: Zn	Zn A		EP (E	No N/A	
NaOH: Na	NaO		A 8	Yes No	
 F	HCL: HL		301	Themometas Yes No	Temperature (°C):
H2S04: H2	H2S		80	Voc No	SAMPLE RECEIPT
HNO3: HN	HNC		021	Quote #:	PO#:
MeOH: Me	MeC)	*	7
			Code	Routine	1
Preservative Codes	ST	ANALYSIS REQUEST	Pres.	Turn Arc	5
Other:	Deliverables: EDD ☐ ADaPT ☐	(tenu, com	vitenv.com, dmoiro	Email: 16M1TNW	
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		H(e)	ifferent) KUCLI		is
V	3-6701 Www.xenco.com	Awaiiia, GA (770) 449-6600 lampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701	770) 449-8800 Tampa,FL (8	(100) 0000	7

Revised Date 022619 Rev. 2019 1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Work Order #: 667959

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

Date/ Time Received: 07.22.2020 04.32.00 PM

Temperature Measuring device used: T-NM-007

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

* Must be completed for	after-hours deliver	v of samples prior t	o placing in the	refrigerator
Must be combleted for	alter-mours acriver	V OI SAIIIDIGS DITOI I	o biacilia ili tile	i eli idei atoi

Analyst:

PH Device/Lot#:

Checklist completed by:

#18 Water VOC samples have zero headspace?

Date: 07.22.2020

N/A

Checklist reviewed by: Jessica Warner

Date: 07.23.2020

Environment Testing

Certificate of Analysis Summary 667958

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id:

💸 eurofins

012920085

Contact:

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Wed 07.22.2020 16:32

Report Date: 07.24.2020 14:20

Project Manager: Jessica Kramer

	Lab Id:	667958-0	001	667958-0	002	667958-0	003	667958-0	004	667958-0	005	667958-0	006
Analysis Requested	Field Id:	PH011	В	PH02F	3	PH03B		PH04B		PH05B		PH06B	
Analysis Requested	Depth:	3- ft		3- ft		4- ft		3- ft		3- ft		3- ft	
	Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL	,	SOIL	
	Sampled:	07.16.2020	10:51	07.16.2020	11:24	07.16.2020	12:19	07.16.2020	12:54	07.16.2020	14:13	07.16.2020	14:41
BTEX by EPA 8021B	Extracted:	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45
	Analyzed:	07.23.2020	15:13	07.23.2020	15:33	07.23.2020	15:53	07.23.2020	16:14	07.23.2020	16:34	07.23.2020	16:55
	Units/RL:	mg/kg	RL										
Benzene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Toluene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Ethylbenzene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
m,p-Xylenes		< 0.00402	0.00402	< 0.00401	0.00401	< 0.00400	0.00400	< 0.00401	0.00401	< 0.00402	0.00402	< 0.00398	0.00398
o-Xylene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Total Xylenes		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Total BTEX		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00199	0.00199
Chloride by EPA 300	Extracted:	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45	07.23.2020	13:45
	Analyzed:	07.23.2020	15:47	07.23.2020	16:04	07.23.2020	16:09	07.23.2020	16:15	07.23.2020	16:21	07.23.2020	16:37
	Units/RL:	mg/kg	RL										
Chloride		318	100	177	10.1	519	10.0	32.3	9.92	47.4	10.1	37.9	10.1
TPH by SW8015 Mod	Extracted:	07.23.2020	13:15	07.23.2020	13:15	07.23.2020	13:15	07.23.2020	13:15	07.23.2020	13:15	07.23.2020	13:15
	Analyzed:	07.23.2020	13:30	07.23.2020	14:31	07.23.2020	14:51	07.23.2020	15:11	07.23.2020	15:31	07.23.2020	15:51
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	< 50.2	50.2	<50.0	50.0
Diesel Range Organics (DRO)		<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	< 50.2	50.2	< 50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	< 50.2	50.2	<50.0	50.0
Total GRO-DRO		<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	< 50.2	50.2	< 50.0	50.0
Total TPH		<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	< 50.2	50.2	< 50.0	50.0

BRL - Below Reporting Limit

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

Jessica Vramer



Analytical Report 667958

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB 012920085 07.24.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.24.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 667958

PLU PC 17 TB

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667958. 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 Eurofins Xenco, LLC. 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. 667958 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Veramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01B	S	07.16.2020 10:51	3 ft	667958-001
PH02B	S	07.16.2020 11:24	3 ft	667958-002
PH03B	S	07.16.2020 12:19	4 ft	667958-003
PH04B	S	07.16.2020 12:54	3 ft	667958-004
PH05B	S	07.16.2020 14:13	3 ft	667958-005
PH06B	S	07.16.2020 14:41	3 ft	667958-006

Page 135 of 152

CASE NARRATIVE

eurofins Environment Testing Xenco

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

 Project ID:
 012920085
 Report Date:
 07.24.2020

 Work Order Number(s):
 667958
 Date Received:
 07.22.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH01B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-001

Date Collected: 07.16.2020 10:51

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

MAB

RL

100

Result

318

Cas Number

16887-00-6

Units

mg/kg

Wet Weight

Analyst:

Parameter

Chloride

MAB Seq Number: 3132524 Date Prep: 07.23.2020 13:45 Basis:

Analysis Date

07.23.2020 15:47

Flag

Dil

10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

07.23.2020 13:30

07.23.2020 13:30

Analyst:

DTH

Date Prep: 07.23.2020 13:15 Basis:

Wet Weight

Seq Number: 3132503

1-Chlorooctane

o-Terphenyl

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8		mg/kg	07.23.2020 13:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8		mg/kg	07.23.2020 13:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8		mg/kg	07.23.2020 13:30	U	1
Total GRO-DRO	PHC628	<49.8	49.8		mg/kg	07.23.2020 13:30	U	1
Total TPH	PHC635	<49.8	49.8		mg/kg	07.23.2020 13:30	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

106

106

%

%

70-135

70-135

111-85-3

84-15-1



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH01B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-001

Date Collected: 07.16.2020 10:51

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	07.23.2020 15:13	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	07.23.2020 15:13	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	07.23.2020 15:13	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	07.23.2020 15:13	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	07.23.2020 15:13	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	07.23.2020 15:13	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	07.23.2020 15:13	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	112	%	70-130	07.23.2020 15:13		
1,4-Difluorobenzene		540-36-3	103	%	70-130	07.23.2020 15:13		



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH02B Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-002

Date Collected: 07.16.2020 11:24

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

MAB Analyst: Seq Number: 3132524

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Result **Parameter** Cas Number RLUnits **Analysis Date** Dil Flag Chloride 16887-00-6 177 10.1 mg/kg 07.23.2020 16:04 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

07.23.2020 14:31

07.23.2020 14:31

Tech:

DTH

% Moisture:

Analyst: DTH Date Prep:

07.23.2020 13:15

%

%

70-135

70-135

Basis:

Wet Weight

Seq Number: 3132503

1-Chlorooctane

o-Terphenyl

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	07.23.2020 14:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 14:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 14:31	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 14:31	U	1
Total TPH	PHC635	<50.0	50.0		mg/kg	07.23.2020 14:31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

112

113

111-85-3

84-15-1

Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH02B Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-002

Date Collected: 07.16.2020 11:24

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep: 07.23.2020 13:45 Basis:

Wet Weight

Parameter	Cas Numbe	er Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 15:33	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 15:33	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 15:33	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	07.23.2020 15:33	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 15:33	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 15:33	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 15:33	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	07.23.2020 15:33		
4-Bromofluorobenzene		460-00-4	103	%	70-130	07.23.2020 15:33		



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH03B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-003

Date Collected: 07.16.2020 12:19

Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep:

07.23.2020 13:45

07.23.2020 13:15

Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	519	10.0	mg/kg	07.23.2020 16:09		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture: Basis:

Wet Weight

Flag

Analyst: DTH

Seq Number: 3132503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1

Date Prep:

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	112	%	70-135	07.23.2020 14:51
o-Terphenyl	84-15-1	108	%	70-135	07.23.2020 14:51



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH03B Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-003

Date Collected: 07.16.2020 12:19

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep: 07.23.2020 13:45 Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 15:53	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 15:53	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 15:53	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	07.23.2020 15:53	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 15:53	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 15:53	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 15:53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	07.23.2020 15:53		
4-Bromofluorobenzene		460-00-4	103	%	70-130	07.23.2020 15:53		



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH04B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-004

Date Collected: 07.16.2020 12:54

Sample Depth: 3 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech: Analyst: MAB

MAB

Date Prep:

07.23.2020 13:45

% Moisture: Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.3	9.92	mg/kg	07.23.2020 16:15		1

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst: DTH

Date Prep:

07.23.2020 13:15

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	07.23.2020 15:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 15:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 15:11	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 15:11	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	07.23.2020 15:11	U	1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH04B**

Matrix: Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667958-004

Date Collected: 07.16.2020 12:54

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MA

MAB

% Moisture:

Analyst: MAB

Date Prep:

07.23.2020 13:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.23.2020 16:14	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.23.2020 16:14	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.23.2020 16:14	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	07.23.2020 16:14	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.23.2020 16:14	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.23.2020 16:14	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.23.2020 16:14	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	104	%	70-130	07.23.2020 16:14		
1,4-Difluorobenzene		540-36-3	103	%	70-130	07.23.2020 16:14		



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH05B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-005

Date Collected: 07.16.2020 14:13

Sample Depth: 3 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

MAB Date Prep:

07.23.2020 13:45

% Moisture: Basis:

Wet Weight

Seq Number: 3132524

Tech:

Tech:

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	47.4	10.1	mg/kg	07.23.2020 16:21		1

Analytical Method: TPH by SW8015 Mod

DTH

Analyst: DTH

o-Terphenyl

Date Prep:

07.23.2020 13:15

% Moisture:

70-135

Basis: Wet Weight

07.23.2020 15:31

Prep Method: SW8015P

Seq Number: 3132503

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	07.23.2020 15:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	07.23.2020 15:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	07.23.2020 15:31	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	07.23.2020 15:31	U	1
Total TPH	PHC635	<50.2	50.2		mg/kg	07.23.2020 15:31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	111	%	70-135	07.23.2020 15:31		

111

84-15-1



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **PH05B**

Matrix: Soil

Date Received:07.22.2020 16:32

Lab Sample Id: 667958-005

Date Collected: 07.16.2020 14:13

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

07.23.2020 16:34

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

460-00-4

07.23.2020 13:45 Basis:

Wet Weight

Seq Number: 3132516

4-Bromofluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	07.23.2020 16:34	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	07.23.2020 16:34	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	07.23.2020 16:34	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	07.23.2020 16:34	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	07.23.2020 16:34	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	07.23.2020 16:34	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	07.23.2020 16:34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	70-130	07.23.2020 16:34		

101

%

70-130



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH06B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-006

Date Collected: 07.16.2020 14:41

Sample Depth: 3 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

% Moisture:

Tech: Analyst:

MAB

Date Prep:

Basis:

Wet Weight

Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.9	10.1	mg/kg	07.23.2020 16:37		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: Analyst: DTH DTH

Date Prep:

07.23.2020 13:15

07.23.2020 13:45

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	07.23.2020 15:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	07.23.2020 15:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	07.23.2020 15:51	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	07.23.2020 15:51	U	1
Total TPH	PHC635	<50.0	50.0		mg/kg	07.23.2020 15:51	U	1
Surrogate		Cas Number %	% Recovery	Units	Limits	Analysis Date	Flag	



Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: PH06B

Matrix: Soil Date Received:07.22.2020 16:32

Lab Sample Id: 667958-006

Date Collected: 07.16.2020 14:41

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

07.23.2020 16:55

Tech: Analyst: MAB MAB

Date Prep:

540-36-3

07.23.2020 13:45

Basis:

70-130

Wet Weight

Seq Number: 3132516

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	07.23.2020 16:55	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	07.23.2020 16:55	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	07.23.2020 16:55	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	07.23.2020 16:55	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	07.23.2020 16:55	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	07.23.2020 16:55	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	07.23.2020 16:55	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	4	160-00-4	104	%	70-130	07.23.2020 16:55		

103



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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- 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.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 667958

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300

3132524 Seq Number:

Matrix: Solid

250

E300P Prep Method:

Date Prep:

07.23.2020

MB Sample Id:

7707935-1-BLK

LCS Sample Id: 7707935-1-BKS LCSD Sample Id: 7707935-1-BSD

Units

Parameter

MB Spike Result Amount

LCS LCS Result %Rec

LCSD LCSD Result %Rec Limits %RPD

RPD Limit Analysis Date

Chloride

<10.0

264

106 273

90-110 109

20 3

mg/kg

07.23.2020 15:36

Flag

Analytical Method: Chloride by EPA 300

Seq Number:

3132524

Matrix: Soil

Prep Method: Date Prep:

E300P 07.23.2020

Parent Sample Id:

667958-001

667958-001 S MS Sample Id:

MSD Sample Id: 667958-001 SD

Parameter

Chloride

Parent Spike Result Amount

318

156

MS MS Result %Rec 513 97

MSD Result 517

MSD Limits %Rec 100 90-110 %RPD RPD Limit 20

1

Units

mg/kg

mg/kg

Analysis Flag Date

Analytical Method: Chloride by EPA 300

3132524

Spike

201

Amount

201

E300P Prep Method:

Seq Number: Parent Sample Id:

667959-004

Matrix: Soil MS Sample Id:

105

667959-004 S

Date Prep:

RPD

Limit

20

07.23.2020 MSD Sample Id: 667959-004 SD

07.23.2020 17:05

07.23.2020 15:52

Parameter

Parent Result

MS MS Result %Rec

367

MSD Result

367

MSD Limite %Rec 105

90-110

%RPD

0

Units

Analysis Flag Date

Flag

Flag

Chloride

Analytical Method: TPH by SW8015 Mod Seg Number:

3132503

Matrix: Solid

Prep Method:

SW8015P

MB Sample Id:

7707980-1-BLK

LCS Sample Id: 7707980-1-BKS

Date Prep: 07.23.2020

Parameter

LCSD Sample Id: 7707980-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 07.23.2020 12:50 942 94 984 35 < 50.0 1000 98 70-135 4 mg/kg 07.23.2020 12:50 Diesel Range Organics (DRO) 1050 105 1110 70-135 35 < 50.0 1000 111 6 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec %Rec Flag Flag Date Flag %Rec 07.23.2020 12:50 1-Chlorooctane 116 123 124 70-135 % 07.23.2020 12:50 o-Terphenyl 122 111 120 70-135 %

Analytical Method: TPH by SW8015 Mod

Prep Method:

SW8015P

Seq Number:

3132503

Matrix: Solid

Date Prep:

07.23.2020

Parameter

MBResult

MB Sample Id: 7707980-1-BLK

Units

Analysis Date

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

07.23.2020 12:30

Flag

Flag

Flag

QC Summary 667958

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: TPH by SW8015 Mod

3132503 Seq Number:

Parent Sample Id:

667958-001

Matrix: Soil

SW8015P Prep Method:

07.23.2020 Date Prep:

MSD Sample Id: 667958-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Gasoline Range Hydrocarbons (GRO)	< 50.1	1000	977	98	986	98	70-135	1	35	mg/kg	07.23.2020 13:50
Diesel Range Organics (DRO)	< 50.1	1000	1070	107	1090	108	70-135	2	35	mg/kg	07.23.2020 13:50

MS Sample Id: 667958-001 S

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		127		70-135	%	07.23.2020 13:50
o-Terphenyl	116		119		70-135	%	07.23.2020 13:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132516

Matrix: Solid

SW5035A Prep Method:

Date Prep: 07.23.2020

7707934-1-BLK LCS Sample Id: 7707934-1-BKS LCSD Sample Id: 7707934-1-BSD MB Sample Id: MR Snika ICS PPD Unite I imite % PPD Analycic

Parameter		IVID	Spike	LCS	LCS	LCSD	LCSD	Limits	70KFD	KΓD	Units	Analysis
		Result	Amount	Result	%Rec	Result	%Rec			Limit		Date
	Benzene	< 0.00200	0.100	0.102	102	0.103	103	70-130	1	35	mg/kg	07.23.2020 13:16
	Toluene	< 0.00200	0.100	0.0973	97	0.0982	98	70-130	1	35	mg/kg	07.23.2020 13:16
	Ethylbenzene	< 0.00200	0.100	0.102	102	0.104	104	71-129	2	35	mg/kg	07.23.2020 13:16
	m,p-Xylenes	< 0.00400	0.200	0.209	105	0.211	106	70-135	1	35	mg/kg	07.23.2020 13:16
	o-Xylene	< 0.00200	0.100	0.103	103	0.104	104	71-133	1	35	mg/kg	07.23.2020 13:16

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		96		70-130	%	07.23.2020 13:16
4-Bromofluorobenzene	108		98		100		70-130	%	07.23.2020 13:16

Matrix: Soil

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132516 Parent Sample Id:

667958-001 MS Sample Id: 667958-001 S

SW5035A Prep Method:

Date Prep: 07.23.2020 MSD Sample Id: 667958-001 SD

RPD **Parent** Spike MS MS MSD MSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec 07.23.2020 13:57 Benzene < 0.00202 0.101 0.102 101 0.108 108 70-130 35 6 mg/kg 07.23.2020 13:57 0.0972 70-130 35 Toluene < 0.00202 0.101 96 0.103 103 6 mg/kg Ethylbenzene < 0.00202 0.101 0.101 100 0.107 107 71-129 6 35 mg/kg 07.23.2020 13:57 m,p-Xylenes < 0.00403 0.202 0.207 102 0.218 70-135 5 35 07.23.2020 13:57 109 mg/kg o-Xylene < 0.00202 0.101 0.103 102 0.108 108 71-133 5 35 07.23.2020 13:57 mg/kg

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		98		70-130	%	07.23.2020 13:57
4-Bromofluorobenzene	104		101		70-130	%	07.23.2020 13:57

Chain of Custody

Work Order No: LLET 9

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07.22.2020 04.32.00 PM

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

Work Order #: 667958

Temperature Measuring device used: T-NM-007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1.4	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	er/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?		Yes	
#6*Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquished	ed/ received?	Yes	
#10 Chain of Custody agrees with sample la	pels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated to	est(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headspa	ce?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by: Elizabeth McClellan

Date: 07.22.2020

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: <u>07.23.2020</u>