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	NAB1914255662
District RP	2RP-5439
Facility ID	
Application ID	pAB1914255421

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD) NAB1914255662
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.255264°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Los Medanos 36-23-30 State #703H	Site Type Production Well Facility API# (if applicable) 30-015-45314	
Date Release Discovered 5/8/2019		

Unit Letter	Section	Township	Range	County	
N	36	238	30E	Eddy	

Surface Owner: State Federal Tribal Private (Name: New Mexico

Nature and Volume of Release

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

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
X Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
HCl Solution 26-36.95%	27.38 barrels	27.26 barrels
Cause of Palaosa		

Cause of Release

During frac preparation activities, contract personnel discovered hydrochloric acid seeping from the primary acid tank into lined containment and the well pad. Fluid was transferred to a secondary tank and the primary tank was repaired. The secondary tank then developed a leak and was also repaired. Free fluid was recovered from the containment. Additional third party resources have been retained to assist with remediation. Remediation activities will begin when pending flowback activities have been completed.

Yes 🗌 No

Form C-141	State of New Mexico	Incident ID	NAB1914255662
Page 2	Oil Conservation Division	District RP	2RP-5439
			2RF-3439
		Facility ID	
	8	Application ID	pAB1914255421
Was this a major	If YES, for what reason(s) does the responsible part	y consider this a major release?	,
release as defined by			
19.15.29.7(A) NMAC?	An unputherized release of a valuere of 25 hours is		

An unauthorized release of a volume of 25 barrels or more

YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	If YES, was immediate not
ice provided by Bryan Foust to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), and Ryan Mann (SLO) 5/9/2019 by email	Notice provided by Bryan H on 5/9/2019 by email

Initial Response

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

The source of the release has been stopped.

It impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why: N/A

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name:	Title: SH&E Supervisor
Signature Contraction email: Kyle hittrell@xtoenergy.com	Date:
OCD Only Received by:	Date:

Form C-141 Page 3

State of New Mexico Oil Conservation Division

Incident ID	NAB1914255662
District RP	2RP-5439
Facility ID	
Application ID	pAB1914255421

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🔀 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🔀 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🖂 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.

- ☑ Field data☑ Data table
- Data table of soil contaminant concentration data
- $\overline{\boxtimes}$ 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.

eived by OCD: 12/18/20)19 2:20:55 PM			Page 4 of
Form C-141 State of New Mexic		со	Incident ID	NAB1914255662
Page 4	Oil Conservation Divi	ision	District RP	2RP-5439
			Facility ID	
			Application ID	pAB1914255421
failed to adequately inves addition, OCD acceptance and/or regulations. Printed Name: Signature: email: Kyle_Li	onment. The acceptance of a C-141 report l tigate and remediate contamination that pose e of a C-141 report does not relieve the oper <u>Kyle Littrell</u> <u>Kyle Littrell</u>	se a threat to groundwater, sur rator of responsibility for com Title: <u>SH&F</u> Date: <u>12/18/20</u>	face water, human health ppliance with any other fe Supervisor	n or the environment. In
OCD Only Received by:		Date: <u>5/.</u>	22/2019	-

Form C-141 Page 6 State of New Mexico Oil Conservation Division

Incident ID	NAB1914255662
District RP	2RP-5439
Facility ID	
Application ID	pAB1914255421

Closure

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

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

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

Description of remediation activities

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

Printed Name: Kyle Littrell	Title:	SH&E Supervisor
Printed Name: <u>Kyle Littrell</u> Signature: <u>Kyle Littrell</u>	Date:	12/18/2019
email:Kyle_Littrell@xtoenergy.com	Telephone:	432-221-7331
OCD Only		
Received by:	Dat	e: <u>5/22/2019</u>
Closure approval by the OCD does not relieve the responsible paremediate contamination that poses a threat to groundwater, surfaparty of compliance with any other federal, state, or local laws a	ace water, humai	health, or the environment nor does not relieve the responsible
Closure Approved by:	D	ate:
Printed Name:	Т	`itle:

LT Environmental, Inc.

3300 North "A" Street Building 1, Unit 222 Midland, Texas 79705 432,704,5178



December 18, 2019

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

RE: Closure Request Los Medanos 36-23-30 State #703H Remediation Permit Number 2RP-5439 Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following request detailing site assessment and soil sampling activities at the Los Medanos 36-23-30 State #703H (Site) in Unit N, Section 36, Township 23 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil following a release of hydrochloric acid into lined containment and the well pad at the northern central portion of the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Request and requesting No Further Action (NFA) for Remediation Permit (RP) Number 2RP-5439.

RELEASE BACKGROUND

On May 8, 2019, during preparation for hydraulic fracturing activities, a leak from the primary acid tank was discovered resulting in the release of hydrochloric acid into lined containment and the well pad at the Site. Fluid was transferred to a secondary tank while the primary tank was being repaired. The secondary tank developed a leak, resulting in an additional release of hydrochloric acid and was also repaired. The total release from both the primary and secondary frac tanks was approximately 27.38 barrels (bbls). Freestanding acid was neutralized and recovered from the containment area at a volume estimated to be approximately 27.26 bbls. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on May 20, 2019, and was assigned RP Number 2RP-5439 (Attachment 1).

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code





Bratcher, M. Page 2

(NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is the United States Geological Survey (USGS) well 321544103515202, located 1.70 miles west-northwest of the Site. The water well has a depth to groundwater of approximately 417 feet bgs and a total depth of 563 feet bgs. Ground surface elevation at the water well location is 3,404 feet above mean seal level (amsl). The closest continuously-flowing water or significant watercourse to the Site is a tributary to an unknown body of water located approximately 2,143 feet east of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake, and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low potential karst area.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On September 16, 2019, LTE personnel conducted Site reconnaissance to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected four preliminary soil samples (SS01 through SS04) within the release extent from a depth of approximately 0.5 feet bgs to assess the presence or absence of soil impacts at the ground surface. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach[®] chloride QuanTab[®] test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range





Bratcher, M. Page 3

organics (ORO) following EPA Method 8015M/D; Chloride following EPA Method 300.0; and pH following EPA Method 9045D.

Based on laboratory analytical results for the preliminary soil samples SS01 through SS04, excavation activities did not appeared to be warranted; however, additional assessment activities were scheduled to further confirm the presence or absence of impacted soil. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 2.

On November 20, 2019, LTE personnel returned to the Site to oversee additional soil assessment activities. Four potholes (PH01 through PH04) were advanced using a track-mounted backhoe to a depth of approximately 2 feet bgs within the release extent. Soil samples were collected at depths of approximately 1 foot bgs (PH01 through PH04) and 2 feet bgs (PH01A through PH04A) at each pothole location.

Soil from the boreholes were field screened for volatile aromatic hydrocarbons utilizing a PID and Hach[®] chloride QuanTab[®] test strips, respectively. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Midland, Texas. All potholes were backfilled with the same soil that was removed during the investigation at each location. The preliminary delineation soil sample and pothole locations are depicted on Figure 2.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SSO1 through SSO4 collected at approximately 0.5 feet bgs, in samples PHO1 through PHO4 collected at 1 foot bgs, and in samples PHO1A through PHO4A collected at 2 feet bgs. In addition, pH was also analyzed in samples PHO1 through PHO4 collected at 1 foot bgs, and in samples PHO1 through PHO4A collected at 2 feet bgs to ensure that no remaining acidic concentrations were left within the release area. Sample results ranged from 8.03 to 8.67. Laboratory analytical results are presented on Figure 2 and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 3.

CONCLUSIONS

Preliminary soil samples SS01 through SS04 and delineation soil samples PH01/PH01A through PH04/PH04A were collected from within the release extent from depths ranging from 0.5 feet to 2 feet bgs to assess for the presence or absence of soil impacts resulting from the release discovered May 8, 2019. Laboratory analytical results for all soil samples indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, pH values in soil samples did not indicate any impact to the soil from the release.





Bratcher, M. Page 4

Based on initial response efforts and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified and no soil excavation was required as a result of the hydrochloric acid release. XTO requests NFA for RP Number 2RP-5439. An updated Form C-141 is included as Attachment 1.

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

Ushley L. ager

Ashley L. Ager, P.G.

Senior Geologist

Sincerely,

LT ENVIRONMENTAL, INC.

DI

Christa-Marie Leibli, P.G. Senior Hydrogeologist

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

Attachments:

- Figure 1 Site Location Map
- Figure 2 Soil Sample Locations

Table 1Soil Analytical Results

Attachment 1 Initial/Final NMOCD Form C-141 (2RP-5439)

Attachment 2 Photographic Log

Attachment 3 Lithologic/Soil Sampling Logs

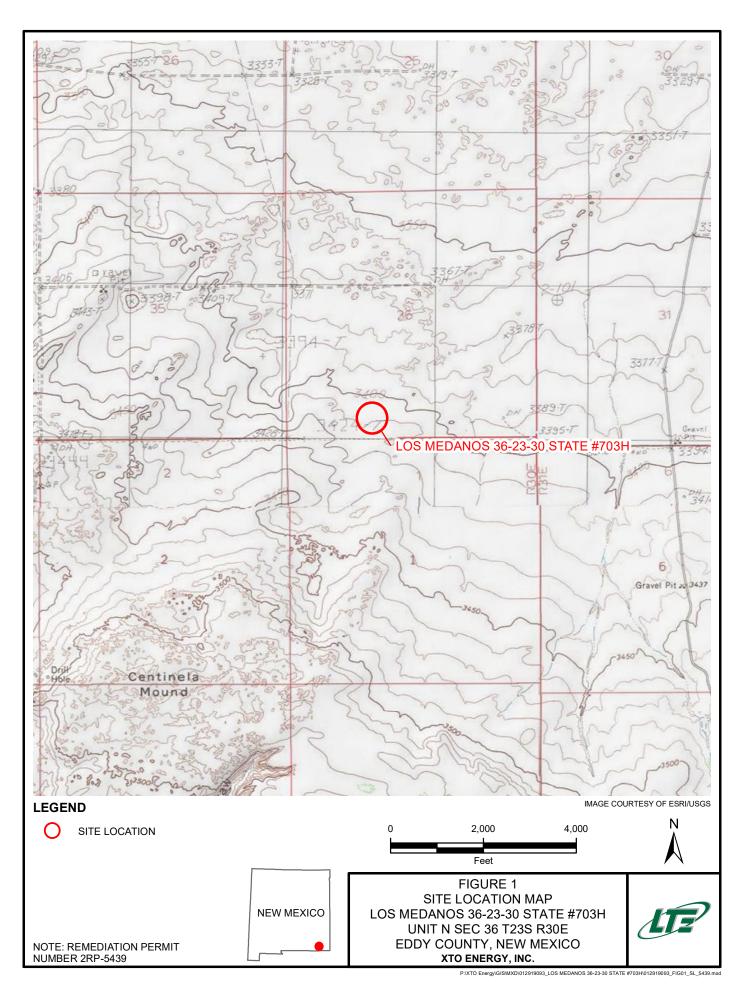
Attachment 4 Laboratory Analytical Reports

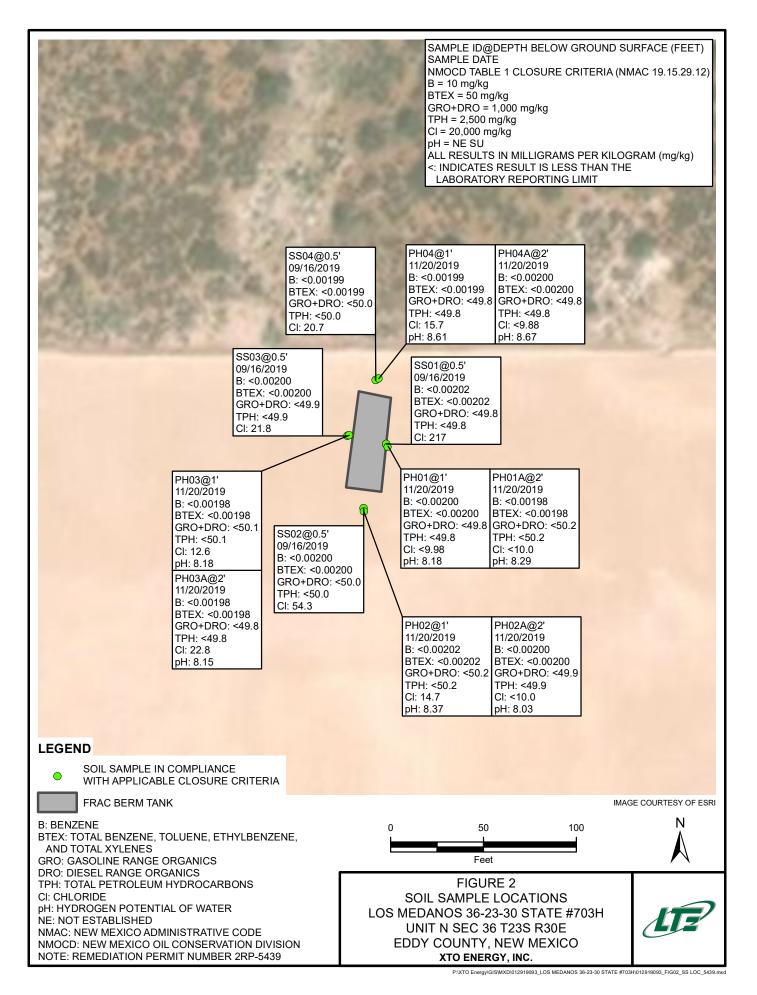


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FIGURES







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TABLES

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TABLE 1 SOIL ANALYTICAL RESULTS

LOS MEDANOS 36-23-30 STATE #703H REMEDIATION PERMIT NUMBER 2RP-5439 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)	pH in Water (SU)	Temperature (Deg °C)
NMOCD Table	e 1 Closure Crit	eria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000	NE	NE
SS01	0.5	09/16/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	217		
SS02	0.5	09/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	54.3		
SS03	0.5	09/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	21.8		
SS04	0.5	09/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	20.7		
PH01	1	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<9.98	8.18	23.2
PH01A	2	11/20/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0	8.29	24.7
PH02	1	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	14.7	8.37	25.2
PH02A	2	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0	8.03	24.7
PH03	1	11/20/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	12.6	8.18	24.9
PH03A	2	11/20/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	22.8	8.15	24.6
PH04	1	11/20/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	15.7	8.61	24.1
PH04A	2	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<9.88	8.67	23.1

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</td>

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



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ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG



Photograph 1: South facing view of frac tank and release extent.



Photograph 3: North facing view of site location.



Photograph 2: East facing view of site location.



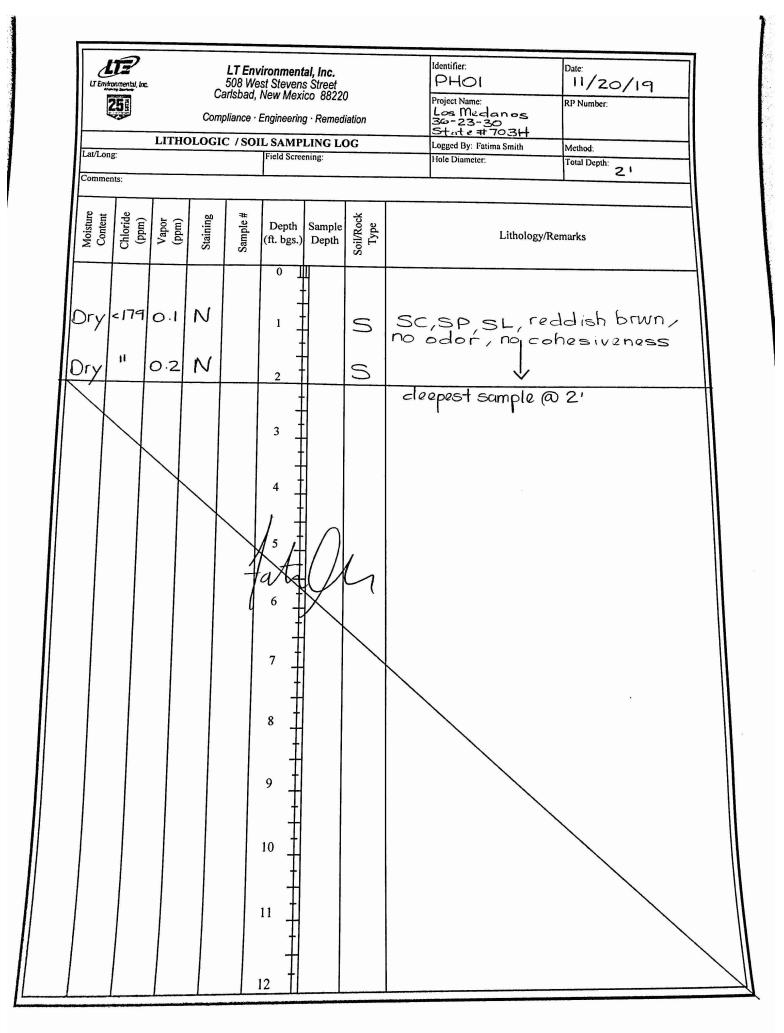
Photograph 4: East facing view of frac tank and release extent.

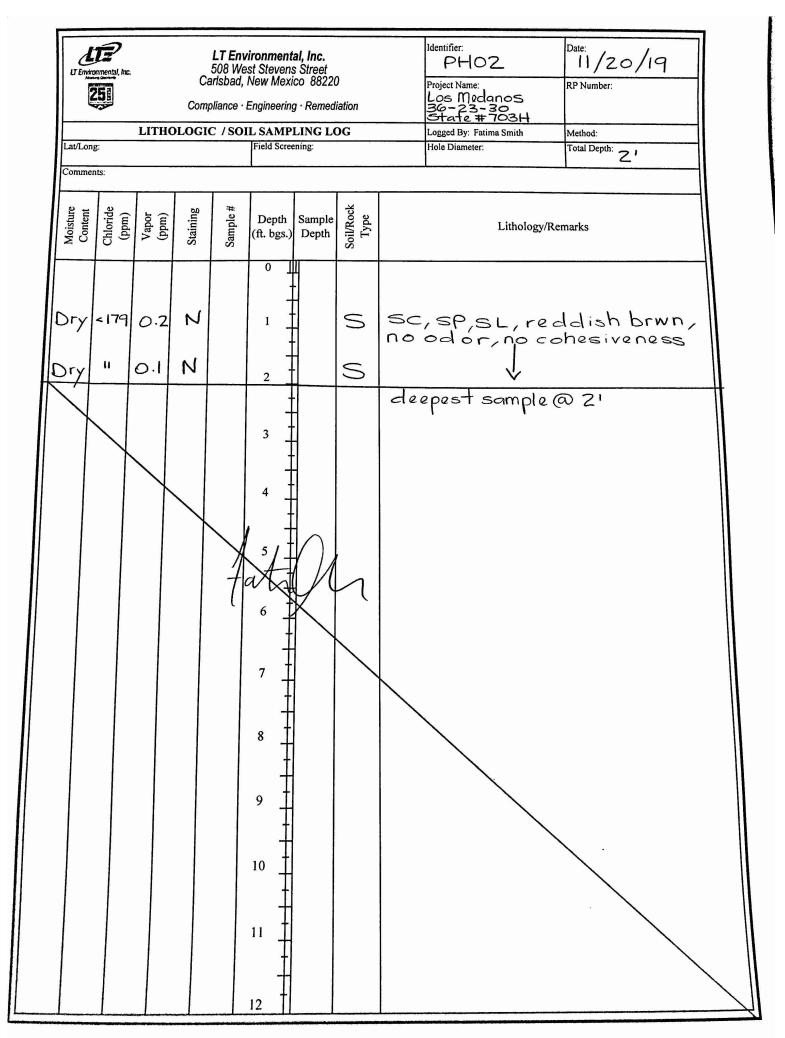
Los Medanos 36-23-30 State #703H Eddy County, New Mexico Photographs Taken: September 16, 2019 – August 15, 2019

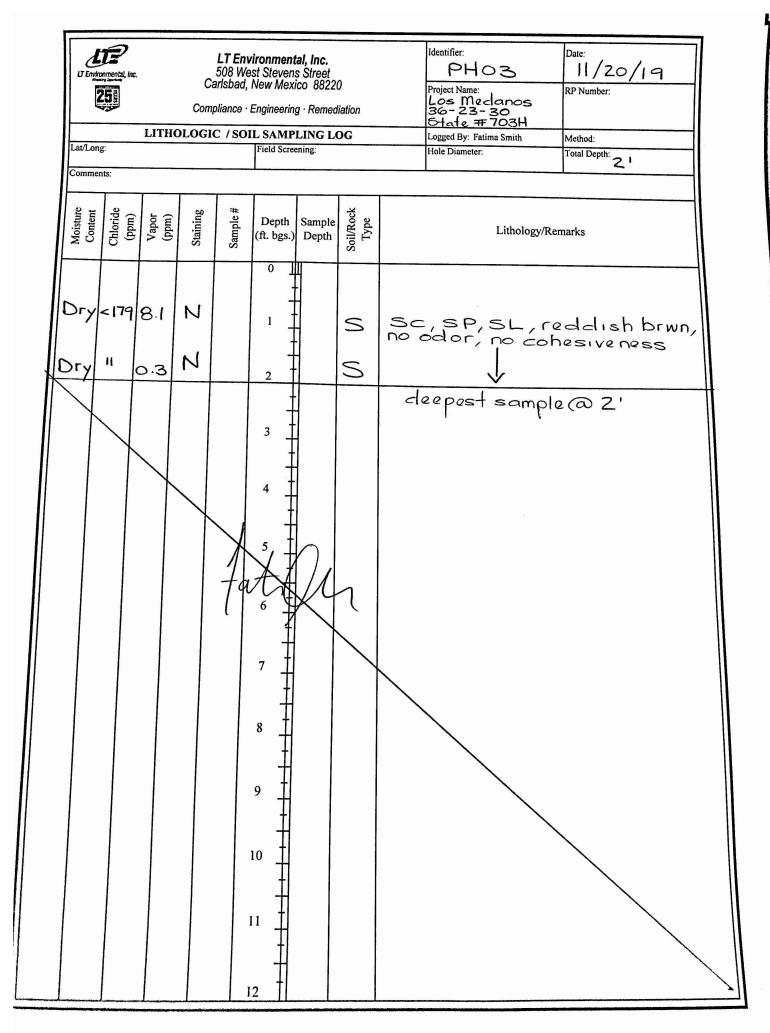


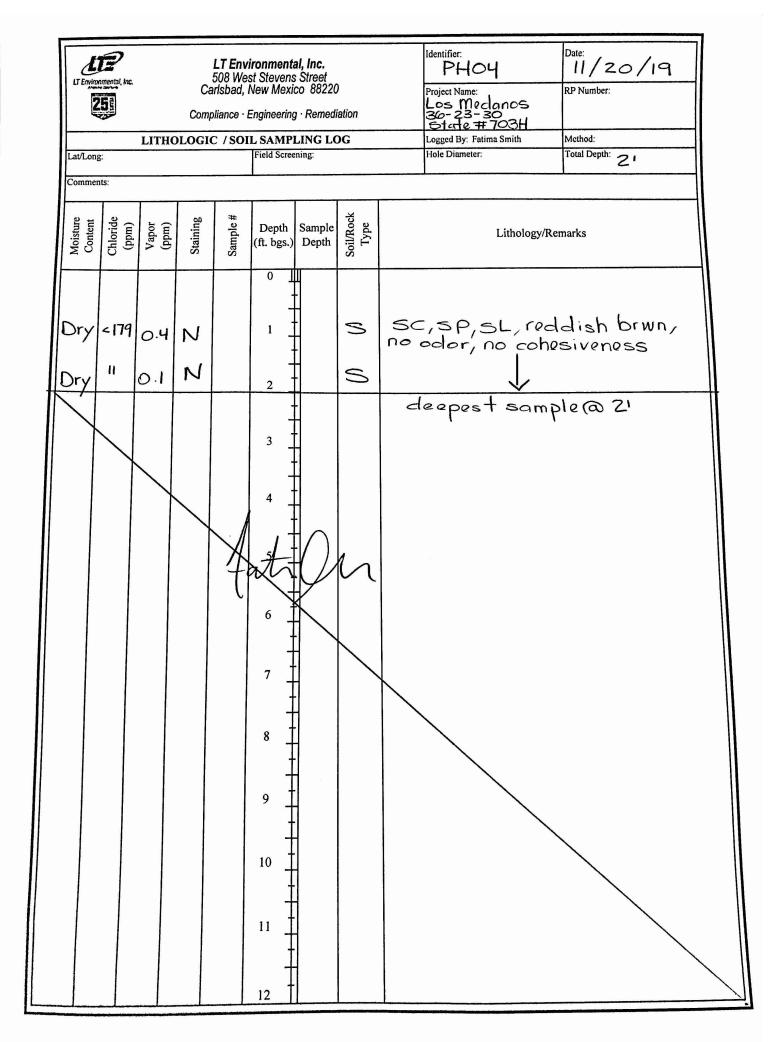
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Analytical Report 637051

for

LT Environmental, Inc.

Project Manager: Dan Moir

Los Medanos 36-23-30 State #703H

012919093

20-SEP-19

Collected By: Client



1089 N Canal Street Carlsbad, NM 88220

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

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

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



20-SEP-19

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

Reference: XENCO Report No(s): 637051 Los Medanos 36-23-30 State #703H Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 637051. 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. 637051 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 Vermer

 Jessica Kramer

 Project Assistant

 Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies.

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

Sample Cross Reference 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09-16-19 12:48	0.5 ft	637051-001
SS02	S	09-16-19 12:49	0.5 ft	637051-002
SS03	S	09-16-19 12:50	0.5 ft	637051-003
SS04	S	09-16-19 12:51	0.5 ft	637051-004

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CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: Los Medanos 36-23-30 State #703H

 Project ID:
 012919093

 Work Order Number(s):
 637051

Report Date: 20-SEP-19 Date Received: 09/17/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3101869 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Project Id:012919093Contact:Dan MoirProject Location:Eddy County

Certificate of Analysis Summary 637051

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos 36-23-30 State #703H

Date Received in Lab: Tue Sep-17-19 08:45 am Report Date: 20-SEP-19

Project Manager: Jessica Kramer

	Lab Id:	637051-	001	637051-0	002	637051-0	003	637051-	004	
Analysis Requested	Field Id:	SS01		SS02		SS03		SS04		
Analysis Requested	Depth:	0.5- f	t	0.5- ft	t	0.5- ft		0.5- f	t	
	Matrix:	SOIL	<u>.</u>	SOIL	,	SOIL		SOIL		
	Sampled:	Sep-16-19	12:48	Sep-16-19	12:49	Sep-16-19	12:50	Sep-16-19	12:51	
BTEX by EPA 8021B	Extracted:	Sep-18-19	12:15	Sep-18-19	12:15	Sep-18-19	12:15	Sep-18-19	12:15	
SUB: T104704400-18-16	Analyzed:	Sep-18-19	20:17	Sep-18-19	20:37	Sep-18-19 2	20:57	Sep-18-19	21:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene		< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	
Toluene		< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	
Ethylbenzene		< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	<0.00199	0.00199	
m,p-Xylenes		< 0.00403	0.00403	< 0.00401	0.00401	< 0.00399	0.00399	< 0.00398	0.00398	
o-Xylene		< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	
Total Xylenes		< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	<0.00199	0.00199	
Total BTEX		< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	
Chloride by EPA 300	Extracted:	Sep-19-19	14:30	Sep-19-19	14:30	Sep-19-19	14:30	Sep-19-19	14:30	
SUB: T104704400-18-16	Analyzed:	Sep-19-19	15:58	Sep-19-19	16:04	Sep-19-19	16:21	Sep-19-19	16:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		217	5.02	54.3	4.98	21.8	4.96	20.7	4.99	
PH By SW9045D	Extracted:									
SUB: T104704400-18-16	Analyzed:	Sep-18-19	13:00	Sep-18-19	13:00	Sep-18-19	13:00	Sep-18-19	13:00	
	Units/RL:	Deg C	RL	Deg C	RL	Deg C	RL	Deg C	RL	
Temperature		22.5 +		22.8 +		22.6 +		22.6 +		
PH By SW9045D	Extracted:									
SUB: T104704400-18-16	Analyzed:	Sep-18-19	13:00	Sep-18-19	13:00	Sep-18-19	13:00	Sep-18-19	13:00	
	Units/RL:	SU	RL	SU	RL	SU	RL	SU	RL	
pH	·	8.31		8.39		8.51		8.47		

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

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

fession kramer

Jessica Kramer Project Assistant



Project Id:012919093Contact:Dan MoirProject Location:Eddy County

Certificate of Analysis Summary 637051

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos 36-23-30 State #703H

Date Received in Lab: Tue Sep-17-19 08:45 am Report Date: 20-SEP-19

Project Manager: Jessica Kramer

	Lab Id:	637051-0	01	637051-0	02	637051-0	03	637051-0	04		
Analysis Requested	Field Id:	SS01		SS02		SS03		SS04			
Analysis Kequesieu	Depth:	0.5- ft	0.5- ft		0.5- ft		0.5- ft				
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Sep-16-19 1	Sep-16-19 12:48		2:49	Sep-16-19 1	2:50	Sep-16-19 1	2:51		
TPH by SW8015 Mod	Extracted:	Sep-17-19 1	Sep-17-19 11:00		1:00	Sep-17-19 11:00 Sep-18-19 20:52		Sep-17-19 11:00 Sep-18-19 21:14			
SUB: T104704400-18-16	Analyzed:	Sep-18-19 2	20:10	Sep-18-19 20:31							
	Units/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	<49.9	49.9	<50.0	50.0		
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<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		
Total GRO-DRO		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0		
Total TPH		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0		

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fession kenner

Jessica Kramer Project Assistant



Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Sample Id:	SS01		Matrix:	Soil	Date Received:09.17.19 08.45 Sample Depth: 0.5 ft				
Lab Sample Id	d: 637051-001		Date Colle	cted: 09.16.19 12.48		Sample Depth: 0.5	ft		
Analytical Me	ethod: Chloride by EF	PA 300				Prep Method: E30	00P		
Tech:	CHE				% Moisture:				
Analyst:	CHE		Date Prep:	09.19.19 14.30		Basis: We	t Weight		
Seq Number:	3102005		1			SUB: T104704400	-18-16		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride		16887-00-6	217	5.02	mg/kg	09.19.19 15.58		1	
-	ethod: PH By SW904	5D							
Tech:						% Moisture:			
Analyst:	CHE					Basis: We	t Weight		
Seq Number:	3101854					SUB: T104704400	-18-16		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
pH		12408-02-5	8.31		SU	09.18.19 13.00		1	
Temperature		TEMP	22.5		Deg C	09.18.19 13.00	+	1	
Analytical Me	ethod: TPH by SW80	15 Mod				Prep Method: SW	8015P		
Tech:	DVM					% Moisture:			
Analyst:	ARM		Date Prep:	09.17.19 11.00		Basis: We	t Weight		
Seq Number:	3101920					SUB: T104704400	-18-16		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Gasoline Range	Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.18.19 20.10	U	1	
Diesel Range Or	ganics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.18.19 20.10	U	1	
Motor Oil Range H	Iydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.18.19 20.10	U	1	
m 1 0 0 0 F = -					-				

Total GRO-DRO	PHC628	<49.8	49.8		mg/kg	09.18.19 20.10	U	1
Total TPH	PHC635	<49.8	49.8		mg/kg	09.18.19 20.10	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111 05 2	122	0/	70 125	09.18.19 20.10		
1-Chiorooctane		111-85-3	122	%	70-135	09.18.19 20.10		



Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Sample Id: SS01		Matrix:	Soil	Ι	Date Received:09.1	17.19 08.4	5
Lab Sample Id: 637051-001		Date Col	llected: 09.16.19 12.48	S	Sample Depth: 0.5	ft	
Analytical Method: BTEX by	y EPA 8021B			I	Prep Method: SW	5030B	
Tech: KTL				ģ	% Moisture:		
Analyst: KTL		Date Pre	p: 09.18.19 12.15	Ι	Basis: Wet	t Weight	
Seq Number: 3101869			-	5	SUB: T104704400	-18-16	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202	mg/kg	09.18.19 20.17	U	1
Toluene	108-88-3	< 0.00202	0.00202	mg/kg	09.18.19 20.17	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202	mg/kg	09.18.19 20.17	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403	mg/kg	09.18.19 20.17	U	1
o-Xylene	95-47-6	< 0.00202	0.00202	mg/kg	09.18.19 20.17	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202	mg/kg	09.18.19 20.17	U	1
Total BTEX		< 0.00202	0.00202	mg/kg	09.18.19 20.17	U	1
Surrogate		Cas Number	% Description	I imite	Analysis Data	Flag	

Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.18.19 20.17	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.18.19 20.17	

1-Chlorooctane

o-Terphenyl



Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Sample Id: SS02 Lab Sample Id: 637051-002		Matrix: Date Coll	Soil lected: 09.16.19 12.49		Date Received:09.2 Sample Depth: 0.5		5
Analytical Method: Chloride by	EPA 300				Prep Method: E30	00P	
Tech: CHE					% Moisture:		
Analyst: CHE		Date Prep	o: 09.19.19 14.30		Basis: We	t Weight	
Seq Number: 3102005					SUB: T104704400	-	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	54.3	4.98	mg/kg	09.19.19 16.04		1
Analytical Method: PH By SW9	045D						
Tech: CHE					% Moisture:		
Analyst: CHE					Basis: We	t Weight	
Seq Number: 3101854					SUB: T104704400	-	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	8.39		SU	09.18.19 13.00		1
Temperature	TEMP	22.8		Deg C	09.18.19 13.00	+	1
Analytical Method: TPH by SW	8015 Mod				Prep Method: SW	8015P	
Tech: DVM					% Moisture:		
Analyst: ARM		Date Prep	b: 09.17.19 11.00		Basis: We	t Weight	
Seq Number: 3101920					SUB: T104704400	-18-16	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.18.19 20.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.18.19 20.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.18.19 20.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	09.18.19 20.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.18.19 20.31	U	1
Surrogate		Cas Number	% Recovery Units	Limits	Analysis Date	Flag	

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%

%

135

129

70-135

70-135

09.18.19 20.31

09.18.19 20.31

111-85-3

84-15-1



Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Sample Id: SS02 Lab Sample Id: 637051-002		Matrix: Date Colle	Soil cted: 09.16.19 12.49		Date Received:09.1 Sample Depth: 0.5		-5	
Analytical Method:BTEX by ETech:KTLAnalyst:KTLSeq Number:3101869	PA 8021B	Date Prep:	09.18.19 12.15		Prep Method: SW5030B % Moisture: Basis: Wet Weight SUB: T104704400-18-16			
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Benzene	71-43-2	< 0.00200	0.00200	mg/kg	09.18.19 20.37	U	1	
Toluene	108-88-3	< 0.00200	0.00200	mg/kg	09.18.19 20.37	U	1	
Ethylbenzene	100-41-4	< 0.00200	0.00200	mg/kg	09.18.19 20.37	U	1	
m,p-Xylenes	179601-23-1	< 0.00401	0.00401	mg/kg	09.18.19 20.37	U	1	
o-Xylene	95-47-6	< 0.00200	0.00200	mg/kg	09.18.19 20.37	U	1	
Total Xylenes	1330-20-7	< 0.00200	0.00200	mg/kg	09.18.19 20.37	U	1	
Total BTEX		< 0.00200	0.00200	mg/kg	09.18.19 20.37	U	1	
			0/0					

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	09.18.19 20.37	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.18.19 20.37	



Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Sample Id:SS03Lab Sample Id:637051	-003	Matrix: Date Colle	Soil cted: 09.16.19 12.50	Date Received:09.17.19 08.45 Sample Depth: 0.5 ft				
Analytical Method: Ch	nloride by EPA 300				Prep Method: E30	0P		
Tech: CHE					% Moisture:			
Analyst: CHE		Date Prep:	09.19.19 14.30		Basis: Wet	t Weight		
Seq Number: 3102005	5	1			SUB: T104704400	-18-16		
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	21.8	4.96	mg/kg	09.19.19 16.21		1	
Analytical Method: PH	1 Bv SW9045D							
Tech: CHE	129 5 (190 102				% Moisture:			
Analyst: CHE						t Weight		
Seq Number: 3101854	4				SUB: T104704400	-		
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Parameter pH	Cas Number 12408-02-5	Result 8.51	RL	Units SU	Analysis Date 09.18.19 13.00	Flag	Dil	
			RL		-	Flag +		
pH Temperature Analytical Method: TF	12408-02-5 TEMP	8.51	RL	SU	09.18.19 13.00 09.18.19 13.00 Prep Method: SW	+	1	
pH Temperature Analytical Method: TF Tech: DVM	12408-02-5 TEMP	8.51 22.6		SU	09.18.19 13.00 09.18.19 13.00 Prep Method: SW % Moisture:	+ 8015P	1	
pH Temperature Analytical Method: TF Tech: DVM Analyst: ARM	12408-02-5 TEMP PH by SW8015 Mod	8.51	RL 09.17.19 11.00	SU	09.18.19 13.00 09.18.19 13.00 Prep Method: SW % Moisture: Basis: Wet	+ 8015P t Weight	1	
pH Temperature Analytical Method: TF Tech: DVM	12408-02-5 TEMP PH by SW8015 Mod	8.51 22.6		SU	09.18.19 13.00 09.18.19 13.00 Prep Method: SW % Moisture:	+ 8015P t Weight	1	
pH Temperature Analytical Method: TF Tech: DVM Analyst: ARM	12408-02-5 TEMP PH by SW8015 Mod	8.51 22.6		SU	09.18.19 13.00 09.18.19 13.00 Prep Method: SW % Moisture: Basis: Wet	+ 8015P t Weight	1	
pH Temperature Analytical Method: TF Tech: DVM Analyst: ARM Seq Number: 3101920	12408-02-5 TEMP PH by SW8015 Mod) Cas Number	8.51 22.6 Date Prep:	09.17.19 11.00	SU Deg C	09.18.19 13.00 09.18.19 13.00 9.18.19 13.00 Prep Method: SW % Moisture: Basis: Wet SUB: T104704400	+ 8015P t Weight -18-16	1	
pH Temperature Analytical Method: TF Tech: DVM Analyst: ARM Seq Number: 3101920 Parameter Gasoline Range Hydrocarbo Diesel Range Organics (DR	12408-02-5 TEMP PH by SW8015 Mod O Cas Number Ons (GRO) PHC610 RO) C10C28DRO	8.51 22.6 Date Prep: Result	09.17.19 11.00 RL	SU Deg C Units	09.18.19 13.00 09.18.19 13.00 9.18.19 13.00 Prep Method: SW % Moisture: Basis: Wet SUB: T104704400 Analysis Date	+ 8015P t Weight -18-16 Flag	l 1 Dil	
pH Temperature Analytical Method: TF Tech: DVM Analyst: ARM Seq Number: 3101920 Parameter Gasoline Range Hydrocarbo Diesel Range Organics (DR Motor Oil Range Hydrocarbos	PH by SW8015 Mod PH by SW8015 Mod Cas Number Cas Number Cas Oumber Cas Oumber Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas Cas	8.51 22.6 Date Prep: Result <49.9 <49.9 <49.9	09.17.19 11.00 RL 49.9 49.9 49.9 49.9	SU Deg C Units mg/kg	09.18.19 13.00 09.18.19 13.00 09.18.19 13.00 Prep Method: SW % Moisture: Basis: Wet SUB: T104704400 Analysis Date 09.18.19 20.52 09.18.19 20.52 09.18.19 20.52	+ 8015P Weight -18-16 Flag U U U U	1 1 Dil 1 1 1	
pH Temperature Analytical Method: TF Tech: DVM Analyst: ARM Seq Number: 3101920 Parameter Gasoline Range Hydrocarbo Diesel Range Organics (DR	12408-02-5 TEMP PH by SW8015 Mod O Cas Number Ons (GRO) PHC610 RO) C10C28DRO	8.51 22.6 Date Prep: Result <49.9 <49.9	09.17.19 11.00 RL 49.9 49.9	SU Deg C Units mg/kg mg/kg	09.18.19 13.00 09.18.19 13.00 09.18.19 13.00 Prep Method: SW % Moisture: Basis: Wet SUB: T104704400 Analysis Date 09.18.19 20.52 09.18.19 20.52	+ 8015P Weight -18-16 Flag U U U	1 1 Dil 1	

% Surrogate Cas Number Units Limits **Analysis Date** Recovery 111-85-3 70-135 09.18.19 20.52 1-Chlorooctane 123 % o-Terphenyl 84-15-1 127 % 70-135 09.18.19 20.52

Flag



Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Sample Id: SS03 Lab Sample Id: 637051-00	Matrix: Date Collec	Soil ted: 09.16.19 12.50		Date Received:09.17.19 08.45 Sample Depth: 0.5 ft			
Analytical Method:BTEX by EPA 8021BTech:KTLAnalyst:KTLSeq Number:3101869		Date Prep:	09.18.19 12.15]	Prep Method: SW % Moisture: Basis: We SUB: T104704400	t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.18.19 20.57	U	1
Toluene	108-88-3	< 0.00200 (0.00200	mg/kg	09.18.19 20.57	U	1
Ethylbenzene	100-41-4	< 0.00200 (0.00200	mg/kg	09.18.19 20.57	U	1
Enificenzene	100 11 1				0,11011, 2010,	U	
m,p-Xylenes	179601-23-1).00399	mg/kg	09.18.19 20.57	U	1
•		<0.00399).00399).00200				1 1
m,p-Xylenes	179601-23-1	<0.00399 (<0.00200 (mg/kg	09.18.19 20.57	U	1 1 1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.18.19 20.57	
4-Bromofluorobenzene	460-00-4	106	%	70-130	09.18.19 20.57	



Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

Prep Method: E300P Tech: CHE Sasis: Wet Weight Analysic: CHE Date Prep: 09.19.19 14.30 Basis: Wet Weight Seq Number: 3102005 Cas Number Result RL Units Analysis Date Flag Dit Analytical Method: PH By SW9045D Subs: Subs: Wet Weight Subs: Vet Weight Analytical Method: PH By SW9045D Subs: Wet Weight Subs: No Analytical Method: PH By SW9045D Subs: Wet Weight Subs: No Analytical Method: PH By SW9045D Keult RL Units Analysis Date Flag Dit Analytical Method: PH By SW9045D Subs: Subs: Subs: No	Sample Id: SS04 Lab Sample Id: 637051-004		Matrix: Date Collec	Soil cted: 09.16.19 12.51		5		
Analyst: CHE Seq Number: Date Prep: $09,19,19,14.30$ Basis: Wet Weight SUB: Tid4704400-18-16 Parameter Cas Number Result RL Units Analysis Date Fag Dit Chloride 16887-00-6 20.7 4.99 mg/kg $09,19,19,16.27$ 1 Analytical Method: PH By SW9045D Subscription Basis: Wet Weight Tech: CHE Seq Number: 301854 Subscription Basis: Wet Weight Parameter CHE Seq Number: Subscription Result RL Units Analysis Date Fag Dit Parameter Cas Number Result RL Units Analysis Date Fag Dit PH 12408-02-5 8.47 SU 09.18.19.13.00 1 Tech: DVM Subscription % Moisture: % Moisture: % Moisture: Analystical Method: TPH by SW8015 Juster TEMP 22.6 SUB SUB SUB: TI04704400-18-16 Subscription TEMP 22.6 8.47 SU Subscr	Analytical Method: Chlorid	e by EPA 300				Prep Method: E30)0P	
Seq Number: 3102005 SUB: TI04704400-18-0 Parameter Cas Number Result RL Units Analysis Date Flag Dil Chloride 16887-00-6 20.7 4.99 mg/kg 09.19.19.16.27 1 Analytical Method: PH By SW9045D	Tech: CHE					% Moisture:		
ParameterCas NumberResultRLUnitsAnalysis DateFlagDilChloride16887-00-620.74.99mg/kg09.19.19 16.271Analytical Method:PH By SW9045D	Analyst: CHE		Date Prep:	09.19.19 14.30		Basis: We	t Weight	
Chloride 16887-00-6 20.7 4.99 mg/kg 09.19.19 16.27 1 Analytical Method: PH By SW9045D % Moisture: 1 Analytical Method: PH By SW9045D % Moisture: Basis: Wet Weight Seq Number: 3101854 SUB: T104704400-18-16 Plage	Seq Number: 3102005		-			SUB: T104704400	-18-16	
Analytical Method: PH By SW9045D Tech: CHE Analysi: CHE Seq Number: 3101854 Parameter Cas Number Result RL Units Analysis Date Flag Dil pH 12408-02-5 8.47 SU 09.18.19 13.00 1 Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod	Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Tech: CHE % Moisture: Analyst: CHE Basis: Wet Weight SuB: T104704400-18-16 SUB: T104704400-18-16 Parameter Cas Number Result RL Units Analysis Date Flag Dil pH 12408-02-5 8.47 SU 09.18.19 13.00 1 Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod Date Prep: 09.17.19 09.17.19 88sis: Wet Weight Analyst: ARM Date Prep: 09.17.19 10 Basis: Wet Weight Seq Number: 3101920 Flag Dil Date Prep: 09.17.19 10.10 Basis: Wet Weight Gasoline Range Hydrocarbons (GRO) PHC610 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Diseel Range Organics (DRO) C10C28DRO <50.0 50.0 mg/kg 09.18.19 14 U 1 Total GRO-DRO PHC628 <50.0 50.0 </td <td>Chloride</td> <td>16887-00-6</td> <td>20.7</td> <td>4.99</td> <td>mg/kg</td> <td>09.19.19 16.27</td> <td></td> <td>1</td>	Chloride	16887-00-6	20.7	4.99	mg/kg	09.19.19 16.27		1
Tech: CHE % Moisture: Analyst: CHE Basis: Wet Weight SuB: T104704400-18-16 SUB: T104704400-18-16 Parameter Cas Number Result RL Units Analysis Date Flag Dil pH 12408-02-5 8.47 SU 09.18.19 13.00 1 Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod Date Prep: 09.17.19 09.17.19 88sis: Wet Weight Analyst: ARM Date Prep: 09.17.19 10 Basis: Wet Weight Seq Number: 3101920 Flag Dil Date Prep: 09.17.19 10.10 Basis: Wet Weight Gasoline Range Hydrocarbons (GRO) PHC610 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Diseel Range Organics (DRO) C10C28DRO <50.0 50.0 mg/kg 09.18.19 14 U 1 Total GRO-DRO PHC628 <50.0 50.0 </td <td>Analytical Matheds DILDs</td> <td>SW0045D</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Analytical Matheds DILDs	SW0045D						
Analyst: CHE Basis: Weight Seq Number: 3101854 Cas Number Result RL Units Analysis Date Flag Dit PH 12408-02-5 8.47 SU 09.18.19 13.00 1 Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod TEMP Date Prep: 09.17.19 09.17.19 Basis: Weight SWB: 15P Seq Number: 3101920 Date Prep: 09.17.19 100 Basis: Weight SUB: T10470440-18-16 Parameter Cas Number Result RL Units Analysis Date Flag Dit Gasoline Range Hydrocarbons (GRO) PHC610 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Diseel Range Organics (DRO) PHC628 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Diseel Range Organ		3 W 9043D				% Moisture:		
Seq Number: 3101854 SUB: T104704400-18-16 Parameter Cas Number Result RL Units Analysis Date Flag Dil pH 12408-02-5 8.47 SU 09.18.19 13.00 1 Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod Prep Prep Method: SW8015P % Moisture: Analytic: DVM Analysi: ARM Date Prep: 09.17.19 11.00 Basis: Wet weight Seq Number: 3101920 SUB: T104704400-18-16 SUB: T104704400-18-16 Parameter Cas Number Result RL Units Analysis Date Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 <50.0							t Waight	
Parameter Cas Number Result RL Units Analysis Date Flag Dil pH 12408-02-5 8.47 SU 09.18.19 13.00 1 Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P % Moisture: Analyst: ARM Date Prep: 09.17.19 11.00 Basis: Wet Weight Seq Number: 3101920 Exesuit RL Units Analysis Date Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 <50.0	5						-	
PH 12408-02-5 8.47 SU 09.18.19 13.00 1 Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P % Moisture: % Moisture	Seq Number. 5101054					SOB. 1104704400	-18-10	
Temperature TEMP 22.6 Deg C 09.18.19 13.00 + 1 Analytical Method: TPH by SW8015 Mod Prep Method: SW8015 P Tech: DVM % Moisture: Basis: Wet Weight Analyst: ARM Date Prep: 09.17.19 11.00 Basis: Wet Weight Seq Number: 3101920 RE Units Analysis Date Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 <50.0	Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Prep Method: TPH by SW8015 Mod Prep Method: SW8015P Tech: DVM % Moisture: Analyst: ARM Date Prep: $09.17.19\ 11.00$ Basis: We Weight Seq Number: 3101920 Date Prep: $09.17.19\ 11.00$ Basis: We Weight Frameter Cas Number Result RL Units Analysis Date Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 <50.0 50.0 mg/kg $09.18.19\ 21.14$ U 1 Diesel Range Organics (DRO) C10C28DRO <50.0 50.0 mg/kg $09.18.19\ 21.14$ U 1 Motor Oil Range Hydrocarbons (MRO) PHC62835 <50.0 50.0 mg/kg $09.18.19\ 21.14$ U 1 Total GRO-DRO PHC628 <50.0 50.0 mg/kg $09.18.19\ 21.14$ U 1 Total TPH PHC635 <50.0 50.0 mg/kg $09.18.19\ 21.14$ U 1	pH	12408-02-5	8.47		SU	09.18.19 13.00		1
Tech: Analyst:DVM M <t< td=""><td>Temperature</td><td>TEMP</td><td>22.6</td><td></td><td>Deg C</td><td>09.18.19 13.00</td><td>+</td><td>1</td></t<>	Temperature	TEMP	22.6		Deg C	09.18.19 13.00	+	1
Tech: Analyst:DVM M <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
Analyst: ARM Date Prep: 09.17.19 11.00 Basis: Wet Weight SUB: T104704400-18-16 Seq Number: 3101920 Cas Number Result RL Units Analysis Date Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Disel Range Organics (DRO) C10C28DRO <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Motor Oil Range Hydrocarbons (MRO) PHC62835 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Total GRO-DRO PHC635 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Total TPH PHC635 <50.0 50.0 mg/kg 09.18.19 21.14 U 1	Analytical Method: TPH by	v SW8015 Mod				Prep Method: SW	8015P	
Seq Number: 3101920 Cas Number Result RL Units Analysis Date Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 <50.0	Tech: DVM					% Moisture:		
Parameter Cas Number Result RL Units Analysis Date Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 <50.0	Analyst: ARM		Date Prep:	09.17.19 11.00		Basis: We	t Weight	
Gasoline Range Hydrocarbons (GRO) PHC610 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Diesel Range Organics (DRO) C10C28DRO <50.0	Seq Number: 3101920					SUB: T104704400	-18-16	
Diesel Range Organics (DRO) C10C28DRO <50.0 mg/kg 09.18.19 21.14 U 1 Motor Oil Range Hydrocarbons (MRO) PHCG2835 <50.0	De server e f e se	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Motor Oil Range Hydrocarbons (MRO) PHCG2835 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Total GRO-DRO PHC628 <50.0	Parameter							
Total GRO-DRO PHC628 <50.0 50.0 mg/kg 09.18.19 21.14 U 1 Total TPH PHC635 <50.0		GRO) PHC610	<50.0	50.0	mg/kg	09.18.19 21.14	U	1
Total TPH PHC635 <50.0 50.0 mg/kg 09.18.19 21.14 U 1	Gasoline Range Hydrocarbons (G							-
	Gasoline Range Hydrocarbons (C Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRC	C10C28DRO D) PHCG2835	<50.0 <50.0	50.0 50.0	mg/kg mg/kg	09.18.19 21.14 09.18.19 21.14	U U	1 1
0/2	Gasoline Range Hydrocarbons (G Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRC Total GRO-DRO	C10C28DRO D) PHCG2835 PHC628	<50.0 <50.0 <50.0	50.0 50.0 50.0	mg/kg mg/kg mg/kg	09.18.19 21.14 09.18.19 21.14 09.18.19 21.14	U U U	1 1 1

% Surrogate Cas Number Units Limits **Analysis Date** Recovery 111-85-3 % 70-135 09.18.19 21.14 1-Chlorooctane 123 o-Terphenyl 84-15-1 126 % 70-135 09.18.19 21.14

Flag



1,4-Difluorobenzene

Certificate of Analytical Results 637051

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State #703H

99

%

70-130

09.18.19 21.17

Sample Id:SS04Lab Sample Id:637051-004			Matrix: Soil Date Collected: 09.16.19 12.51			Date Received:09.17.19 08.45 Sample Depth: 0.5 ft				
Analytical Method:BTEX by EPA 8021BTech:KTLAnalyst:KTLSeq Number:3101869		p: 09.1	8.19 12.15	9 I	% Moisture: Basis: We	t Weight				
Cas Number	Result	RL		Units	Analysis Date	Flag	Dil			
71-43-2	< 0.00199	0.00199		mg/kg	09.18.19 21.17	U	1			
108-88-3	< 0.00199	0.00199		mg/kg	09.18.19 21.17	U	1			
100-41-4	< 0.00199	0.00199		mg/kg	09.18.19 21.17	U	1			
179601-23-1	< 0.00398	0.00398		mg/kg	09.18.19 21.17	U	1			
95-47-6	< 0.00199	0.00199		mg/kg	09.18.19 21.17	U	1			
1330-20-7	< 0.00199	0.00199		mg/kg	09.18.19 21.17	U	1			
	< 0.00199	0.00199		mg/kg	09.18.19 21.17	U	1			
	Cas Number 460-00-4	% Recovery 105	Units	Limits 70-130	Analysis Date	Flag				
	Cas Number 71-43-2 108-88-3 100-41-4 179601-23-1 95-47-6 1330-20-7	Date Col 21B Date Pre Cas Number Result 71-43-2 <0.00199	Date Collected: 09.1 21B Date Prep: 09.1 Cas Number Result RL 71-43-2 <0.00199	Date Collected: 09.16.19 12.51 21B Date Prep: 09.18.19 12.15 Cas Number Result RL 71-43-2 <0.00199	Date Collected: 09.16.19 12.51 5 21B Date Prep: 09.18.19 12.15 9 Date Prep: 09.18.19 12.15 9 21B Example Result RL Units 71-43-2 <0.00199	Date Collected: 09.16.19 12.51 Sample Depth: 0.5 21B Prep Method: SW Date Prep: 09.18.19 12.15 Basis: Wethod: SW SUB: T104704400 Cas Number RL Units Analysis Date 71-43-2 <0.00199	Date Collected: 09.16.19 12.51 Sample Depth: 0.5 ft 21B Prep Method: SW5030B % Moisture: Date Prep: $99.18.19 12.15$ Basis: Wet Weight SUB: T104704400-18-16 Cas Number Result RL Units Analysis Date Flag 71-43-2 <0.00199			

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.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- ** Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable

SMP Clie	ent Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	ratory Control Sample Duplicate
MD/SD	Method Duplicate/Sample Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



Los Medanos 36-23-30 State #703H

Analytical Method:	Chloride by EPA 30	00						Pr	ep Metho	od: E300	OP	
Seq Number:	3102005			Matrix:	Solid				Date Pre	ep: 09.1	9.19	
MB Sample Id:	7686542-1-BLK		LCS San	nple Id:	7686542-	1-BKS		LCSI	O Sample	d: 7686	5542-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD]	RPD Limi	it Units	Analysis Date	Flag
Chloride	< 0.858	250	236	94	236	94	90-110	0	20	mg/kg	09.19.19 14:34	

Analytical Method:	Chloride by EPA 3	00						Pre	p Metho	d: E30	0P	
Seq Number:	3102005]	Matrix:	Soil				Date Pre	p: 09.1	9.19	
Parent Sample Id:	637051-002		MS San	nple Id:	637051-00	02 S		MSD	Sample	Id: 6370	051-002 SD	
Parameter	Parent	Spike	MS	MS	MSD	MSD	Limits	%RPD R	PD Limi	t Unite	Analysis	
	Result	Amount	Result	%Rec	Result	%Rec	Linits			t Omts	Date	Flag

Analytical Method:	Chloride by EPA 30	00						P	ep Metho	od: E30	OP	
Seq Number:	3102005			Matrix:	Soil				Date Pre	ep: 09.1	9.19	
Parent Sample Id:	637358-061		MS Sar	nple Id:	637358-06	51 S		MS	D Sample	Id: 6373	358-061 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Chloride	2.21	251	249	98	251	99	90-110	1	20	mg/kg	09.19.19 14:50	

Analytical Method: Seq Number: Parent Sample Id:	PH By SW9045D 3101854 637051-001	Matrix: MD Sample Id:						
Parameter	Parent Result	MD Sample Id. MD Result	037031-001 D	%RPD	RPD Lin	nit Units	Analysis Date	Flag
pН	8.31	8.31		0	20	SU	09.18.19 13:00	

Analytical Method: Seq Number:	TPH by S 3101920	W8015 M	od		Matrix:	Solid]	Prep Methoo Date Prep		8015P 7.19	
MB Sample Id:	7686313-1	-BLK		LCS San	nple Id:	7686313-	1-BKS		LC	SD Sample	Id: 768	6313-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI) RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	<15.0	1000	1170	117	1140	114	70-135	3	20	mg/kg	09.18.19 13:01	
Diesel Range Organics	(DRO)	<15.0	1000	1130	113	1100	110	70-135	3	20	mg/kg	09.18.19 13:01	
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			Limits	Units	Analysis Date	
1-Chlorooctane		126		1	21		120		,	70-135	%	09.18.19 13:01	
o-Terphenyl		130		1	25		124			70-135	%	09.18.19 13:01	

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

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

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

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

Final 1.000



Los Medanos 36-23-30 State #703H

Analytical Method: Seq Number:	TPH by S 3101920	W8015 M	od		Matrix:				D	Method ate Prep	: 09.1		
Parent Sample Id:	636983-00	1		MS Sar	nple Id:	636983-00	01 S		MSD S	Sample I	d: 6369	983-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD RP	D Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbor	ns (GRO)	<14.9	996	1010	101	1050	105	70-135	4	20	mg/kg	09.18.19 14:05	
Diesel Range Organics (I	ORO)	<14.9	996	987	99	1050	105	70-135	6	20	mg/kg	09.18.19 14:05	
Surrogate					IS Rec	MS Flag	MSD %Rec			ts	Units	Analysis Date	
1-Chlorooctane				1	23		127		70-13	35	%	09.18.19 14:05	
o-Terphenyl				1	18		129		70-13	35	%	09.18.19 14:05	

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 802 3101869 7686420-1-BLK	1B	LCS Sar	Matrix: nple Id:	Solid 7686420-	1-BKS			Prep Metho Date Pre SD Sample	p: 09.1	5030B 8.19 5420-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI) RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0991	99	0.106	106	70-130	7	35	mg/kg	09.18.19 18:17	
Toluene	< 0.00200	0.100	0.0969	97	0.103	103	70-130	6	35	mg/kg	09.18.19 18:17	
Ethylbenzene	< 0.00200	0.100	0.102	102	0.108	108	70-130	6	35	mg/kg	09.18.19 18:17	
m,p-Xylenes	< 0.00400	0.200	0.198	99	0.209	105	70-130	5	35	mg/kg	09.18.19 18:17	
o-Xylene	< 0.00200	0.100	0.102	102	0.107	107	70-130	5	35	mg/kg	09.18.19 18:17	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re			Limits	Units	Analysis Date	
1,4-Difluorobenzene	98		Ģ	98		99		,	70-130	%	09.18.19 18:17	
4-Bromofluorobenzene	92		1	05		105			70-130	%	09.18.19 18:17	

Analytical Method: Seq Number: Parent Sample Id:	BTEX by EPA 802 3101869 637051-001	1B	MS San	Matrix: nple Id:		01 S			Prep Metho Date Pro SD Sample	ep: 09.1	5030B 8.19 051-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00202	0.101	0.0741	73	0.0914	92	70-130	21	35	mg/kg	09.18.19 18:57	
Toluene	< 0.00202	0.101	0.0726	72	0.0893	90	70-130	21	35	mg/kg	09.18.19 18:57	
Ethylbenzene	< 0.00202	0.101	0.0744	74	0.0941	95	70-130	23	35	mg/kg	09.18.19 18:57	
m,p-Xylenes	< 0.00403	0.202	0.144	71	0.183	92	70-130	24	35	mg/kg	09.18.19 18:57	
o-Xylene	< 0.00202	0.101	0.0736	73	0.0955	96	70-130	26	35	mg/kg	09.18.19 18:57	
Surrogate				IS Rec	MS Flag	MSD %Ree		-	Limits	Units	Analysis Date	
1,4-Difluorobenzene			1	00		101		7	70-130	%	09.18.19 18:57	
4-Bromofluorobenzene			1	07		111		7	70-130	%	09.18.19 18:57	

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

Final 1.000

W/ WW/	11/11	Relinquished by: (Signature)	of service. Xenco will be liable only for the cost of samples and snall not assume any responsionary to any concourse of concourse of the set terms of Xenco. 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 of Xenco. 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	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 to be a subcontractor of the client if such losses are due to circumstances beyond the control to control to be a subcontractor of the client if such losses are due to circumstances beyond the control to control to be a subcontractor of the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the control to the client if such losses are due to circumstances beyond the client if such losses are due to circumstances beyond the client if such losses are due to circumstances beyond the client if such losses are due to circumstances beyond the client if such losses are due to circumstances beyond the client if such losses are due to circumstances beyond the client if such losses are due to circumstances beyond the client if such losses are due to circumstances beyond the client is a such losses are due to circu	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed				SS04	SS03	SS02	SS01	Sample Identification	Sample Cusiony Seals.			Temperature ("C):		SAMPLE RECEIPT	Sampler's Name:	P.O. Number:	Ä	Name:		e ZIP:			Project Manager: Dan Moir	LABURA	XENC	
	5	ature)	y for the cost of samp 5.00 will be applied to	t and relinquishment o	200.8 / 6020: Metal(s) to be an				S	s	S	S	n Matrix		1	5	No No	602	Temp Blank:	William Mather	Eddy County	Q12919093	Los Medanos 36-23-30 State#703H	36-3849	Midland, Tx 79705	3300 North A Street	nmental, Inc.,	bir			
	Col	Received by:	each project and	f samples constit	alyzed T				9/16/2019	9/16/2019	9/16/2019	9/16/2019	Date Sampled	3	Total C	Correct	-)		Yes No	ther	nty	G	30 State#703I	-			Permian office		Hobbs, N		
C	201	y: (Signature)	a charge of \$5 f	utes a valid pure	8RCRA 13PPM TCLP / SPLP 60				12:51	12:50	12:49	12:48	Sampled	1	Total Containers:	Correction Factor:	- 81 K-		Wet Ice: 7	Due Date:	Rush:			Email: wr	Ci	Ac		Bi	IM (575-392-75	Houston,TX Midland,T	
		e)	for each sample	chase order from	RCRA 13PPM Texas 11 A				0.5	0.5	0.5	0.5	Depth	-			507		Teg No	te:		R	Turn Around	Email: wmather@ltenv.com.	City, State ZIP:	Address:	Company Name:	Bill to: (if different)	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) 509-333 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296	
	9/17/19		submitter	n client co ny losses	1 AI S				-		-		Num				itair	ners	•					r.com, d	F	+	_	Ky	Z (480-3	10 Dallas	
		Date/Time	d to Xenc	or expens	l Sb As Ba Be Sb As Ba Be		+		×	×	×	×	TPH BTE				21)	-	-	+				dmoir@ltenv.com			XTO Energy	Kyle Littrell	55-0900)	,TX (214 aso,TX (
	08:45	ne	o, but not	Xenco, it ses incurr	Ba Be 3a Be		-	$\left \right $	×	-	+						50 			+				env.com		2	ΥĘ	-	Atlanta,) 902-030 915)585-	
4	× N	R	analyzed	ed by the	B Cd Ca Cd Cr Co				×	×	×	×	pH																GA (770-	00 San / 3443 Lu	
		elinquis	. These te	s and sub client if s																			AN						449-8800	htonio,T.	and the second
		shed by	rms will b	uch losse	Cr Co C Cu Pb N				_			-		_	_	_	_			_			ANALYSIS						0) Tamp	X (210) 5 ((806)79	
		Relinquished by: (Signature)	will be enforced unless previously negotiated.	ractors. It assigns standard terms and conditions losses are due to circumstances beyond the control	Cr Co Cu Fe Pb Mg Mn Mo I Cu Pb Mn Mo Ni Se Ag TI U																		SIS REQUEST						a,FL (813-62	10) 509-3334 6)794-1296	
		re)	nless prev	s standard circumsta	Mg Mn Mo Ni Se Ag TI U															_		_	- H		Reputitig:cever ii	Deportin	Program: UST/PST		20-2000)		
		R	iously neg	terms an nces beyo	TIU		+		+	+	+	+	-				-			+			-	Dies. EL	y.Level	State Of Fluger.	of Prois				
		Received by: (Signature)	otiated.	d condition nd the con	i K Se																				_	5			WWW		
		by: (S		ns trol	6																							Work Order Comments	www.xenco.com		
		ignatur			SiO2 Na 1631																				ADaPT		rowntie	der Co	com		
		e)			1 / 245.								Ca	0	lab,	TAT star							W		C			mment	raye_		
					Sr 11 Sn U V 1245.117470					Disc	Disc	Dis	Disc	mple C	if receive	ts the da							OTK OTO					'			
		Date/Time			Na Sr H Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg					Discrete	Discrete	Discrete	Discrete	Cample Comments	lab, if received by 4:30pm	TAT starts the day recevied by the							WORK OTHER MOLES	Notos		ILBAGI IN	- Ibertatio	norfund		2	ALC: NO.

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Final 1.000

Page 18 of 21

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Inter-Office Shipment

Page 1 of 1

IOS Number 48122

Date/Time: 09/17/19 11:12 Lab# From: **Carlsbad** Lab# To: **Midland** Created by: Elizabeth Mcclellan Delivery Priority:

Air Bill No.: 776265482604

Please send report to: Jessica Kramer

Address: 1089 N Canal Street

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
637051-001	S	SS01	09/16/19 12:48	SW8021B	BTEX by EPA 8021B	09/23/19	09/30/19	JKR	BR4FBZ BZ BZME EBZ X	
637051-001	S	SS01	09/16/19 12:48	SW9045C	Soil pH by SW-846 9045C	09/23/19	10/14/19	JKR		
637051-001	S	SS01	09/16/19 12:48	SW8015MOD_NM	TPH by SW8015 Mod	09/23/19	09/30/19	JKR	GRO-DRO PHCC10C28 PH	
637051-001	S	SS01	09/16/19 12:48	E300_CL	Chloride by EPA 300	09/23/19	03/14/20	JKR	CL	
637051-002	S	SS02	09/16/19 12:49	SW8021B	BTEX by EPA 8021B	09/23/19	09/30/19	JKR	BR4FBZ BZ BZME EBZ X	
637051-002	S	SS02	09/16/19 12:49	E300_CL	Chloride by EPA 300	09/23/19	03/14/20	JKR	CL	
637051-002	S	SS02	09/16/19 12:49	SW9045C	Soil pH by SW-846 9045C	09/23/19	10/14/19	JKR		
637051-002	S	SS02	09/16/19 12:49	SW8015MOD_NM	TPH by SW8015 Mod	09/23/19	09/30/19	JKR	GRO-DRO PHCC10C28 PH	
637051-003	S	SS03	09/16/19 12:50	SW9045C	Soil pH by SW-846 9045C	09/23/19	10/14/19	JKR		
637051-003	S	SS03	09/16/19 12:50	SW8021B	BTEX by EPA 8021B	09/23/19	09/30/19	JKR	BR4FBZ BZ BZME EBZ X	
637051-003	S	SS03	09/16/19 12:50	SW8015MOD_NM	TPH by SW8015 Mod	09/23/19	09/30/19	JKR	GRO-DRO PHCC10C28 PH	
637051-003	S	SS03	09/16/19 12:50	E300_CL	Chloride by EPA 300	09/23/19	03/14/20	JKR	CL	
637051-004	S	SS04	09/16/19 12:51	SW8021B	BTEX by EPA 8021B	09/23/19	09/30/19	JKR	BR4FBZ BZ BZME EBZ X	
637051-004	S	SS04	09/16/19 12:51	SW8015MOD_NM	TPH by SW8015 Mod	09/23/19	09/30/19	JKR	GRO-DRO PHCC10C28 PH	
637051-004	S	SS04	09/16/19 12:51	E300_CL	Chloride by EPA 300	09/23/19	03/14/20	JKR	CL	
637051-004	S	SS04	09/16/19 12:51	SW9045C	Soil pH by SW-846 9045C	09/23/19	10/14/19	JKR		

Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 09/17/2019

Received By:

Brianna Teel

Date Received: 09/18/2019 11:27

Cooler Temperature: 2.1



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland IOS #: 48122

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

Sent By:	Elizabeth McClellan	Date Sent:	09/17/2019 11:12 AM
Received By:	Brianna Teel	Date Received:	09/18/2019 11:27 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.1	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 *Custody Seals Signed and dated for Containers/coolers	Yes	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	Yes	
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	Yes	

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

NonConformance:

Corrective Action Taken:

Contact:

Nonconformance Documentation

Contacted by :

Date:

Checklist reviewed by:

Brince Tel	1
Briann	a Teel

Date: 09/18/2019



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc. Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 09/17/2019 08:45:00 AM Temperature Measuring device used : T-NM-007 Work Order #: 637051 Sample Receipt Checklist Comments

#1 *Temperature of cooler(s)?	6
#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?	Νο
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Midland.
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

 Checklist completed by:
 Checklist completed by:

 Elizabeth McClellan

 Checklist reviewed by:
 Jessica Kramer

Date: 09/17/2019

Date: 09/18/2019

Analytical Report 643864

for

LT Environmental, Inc.

Project Manager: Dan Moir

Los Medanos 36-23-30 State#703H

012919093

22-NOV-19

Collected By: Client



1089 N Canal Street Carlsbad, NM 88220

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

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

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



22-NOV-19

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

Reference: XENCO Report No(s): 643864 Los Medanos 36-23-30 State#703H 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) 643864. 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. 643864 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

fession Vermer

 Jessica Kramer

 Project Assistant

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Sample Cross Reference 643864

LT Environmental, Inc., Arvada, CO

Los Medanos 36-23-30 State#703H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	11-20-19 10:07	1 ft	643864-001
PH01A	S	11-20-19 10:06	2 ft	643864-002
PH02	S	11-20-19 10:15	1 ft	643864-003
PH02A	S	11-20-19 10:14	2 ft	643864-004
PH03	S	11-20-19 10:21	1 ft	643864-005
PH03A	S	11-20-19 10:20	2 ft	643864-006
PH04	S	11-20-19 10:27	1 ft	643864-007
PH04A	S	11-20-19 10:26	2 ft	643864-008

.



CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: Los Medanos 36-23-30 State#703H

 Project ID:
 012919093

 Work Order Number(s):
 643864

Report Date: 22-NOV-19 Date Received: 11/20/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3108185 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



012919093 **Project Id: Contact:**

Dan Moir

Project Location:

Certificate of Analysis Summary 643864

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos 36-23-30 State#703H

Date Received in Lab: Wed Nov-20-19 12:35 pm Report Date: 22-NOV-19

Project Manager: Jessica Kramer

	Lab Id:	643864-	001	643864-0	002	643864-	003	643864-	004	643864-	005	643864-	006
Analysis Requested	Field Id:	PH01	<u>l</u>	PH014	4	PH02	1	PH02.	A	PH03	3	PH03/	A
Analysis Requested	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL	,	SOIL		SOIL		SOIL	
	Sampled:	Nov-20-19	10:07	Nov-20-19	10:06	Nov-20-19	10:15	Nov-20-19	10:14	Nov-20-19	10:21	Nov-20-19	10:20
BTEX by EPA 8021B	Extracted:	Nov-20-19	14:11	Nov-20-19	14:11	Nov-20-19	14:11	Nov-20-19	14:11	Nov-20-19	14:11	Nov-20-19	14:11
	Analyzed:	Nov-20-19	22:44	Nov-20-19	23:01	Nov-20-19	23:19	Nov-20-19	23:36	Nov-20-19	23:53	Nov-21-19	00:11
	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	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00198	0.00198
Toluene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00198	0.00198
Ethylbenzene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00198	0.00198
m,p-Xylenes		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00198	0.00198
o-Xylene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00198	0.00198
Total Xylenes		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00198	0.00198
Total BTEX		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00198	0.00198
Chloride by EPA 300	Extracted:	Nov-20-19	16:11	Nov-20-19	16:11	Nov-20-19	16:11	Nov-20-19	16:11	Nov-20-19	16:11	Nov-20-19	16:11
	Analyzed:	Nov-20-19	18:35	Nov-20-19	18:52	Nov-20-19	18:58	Nov-20-19	19:04	Nov-20-19	19:10	Nov-20-19	19:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<9.98	9.98	<10.0	10.0	14.7	10.1	<10.0	10.0	12.6	9.92	22.8	9.88
PH By SW9045D	Extracted:												
SUB: T104704215-19-30	Analyzed:	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57
	Units/RL:	Deg C	RL	Deg C	RL	Deg C	RL	Deg C	RL	Deg C	RL	Deg C	RL
Temperature		23.2 +		24.7 +		25.2 +		24.7 +		24.9 +		24.6 +	
PH By SW9045D	Extracted:												
SUB: T104704215-19-30	Analyzed:	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57	Nov-21-19	10:57
	Units/RL:	SU	RL	SU	RL	SU	RL	SU	RL	SU	RL	SU	RL
pH in Water		8.18		8.29		8.37		8.03		8.18		8.15	

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fession kenner

Jessica Kramer Project Assistant



Project Id:012919093Contact:Dan Moir

Project Location:

Certificate of Analysis Summary 643864

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos 36-23-30 State#703H

Date Received in Lab: Wed Nov-20-19 12:35 pm Report Date: 22-NOV-19

Project Manager: Jessica Kramer

	Lab Id:	643864-0	01	643864-0	02	643864-0	03	643864-0	04	643864-0	05	643864-0	06
Analysis Requested	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
Analysis Requested	Depth:	1- ft		2- ft 1- ft			2- ft		1- ft		2- ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-20-19 1	0:07	Nov-20-19 1	0:06	Nov-20-19	0:15	Nov-20-19 1	10:14	Nov-20-19	0:21	Nov-20-19 1	0:20
TPH by SW8015 Mod	Extracted:	Nov-20-19	16:30	Nov-20-19 1	6:30	Nov-20-19 1	6:30	Nov-20-19 1	6:30	Nov-20-19	6:30	Nov-20-19 1	6:30
	Analyzed:	Nov-20-192	21:53	Nov-20-19 2	2:13	Nov-20-19 2	22:33	Nov-20-19 2	22:53	Nov-20-19 2	23:13	Nov-20-19 2	3:33
	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	<50.2	50.2	<50.2	50.2	<49.9	49.9	<50.1	50.1	<49.8	49.8
Diesel Range Organics (DRO)		<49.8	49.8	<50.2	50.2	<50.2	50.2	<49.9	49.9	<50.1	50.1	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.2	50.2	<50.2	50.2	<49.9	49.9	<50.1	50.1	<49.8	49.8
Total GRO-DRO		<49.8	49.8	<50.2	50.2	<50.2	50.2	<49.9	49.9	<50.1	50.1	<49.8	49.8
Total TPH		<49.8	49.8	<50.2	50.2	<50.2	50.2	<49.9	49.9	<50.1	50.1	<49.8	49.8

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Jessica Kramer Project Assistant

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Final 1.000



Project Id:012919093Contact:Dan Moir

Project Location:

Certificate of Analysis Summary 643864

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos 36-23-30 State#703H

Date Received in Lab:Wed Nov-20-19 12:35 pmReport Date:22-NOV-19Project Manager:Jessica Kramer

	Lab Id:	643864-00	07	643864-0	08		
	Field Id:	PH04		PH04A			
Analysis Requested	Depth:	1- ft		2- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	Nov-20-19 1	0:27	Nov-20-19	10:26		
BTEX by EPA 8021B	Extracted:	Nov-20-19 1	4:11	Nov-20-19	14:11		
	Analyzed:	Nov-21-190	0:28	Nov-21-19 (00:46		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00199	0.00199	< 0.00200	0.00200		
Toluene		< 0.00199	0.00199	< 0.00200	0.00200		
Ethylbenzene		< 0.00199	0.00199	< 0.00200	0.00200		
m,p-Xylenes		< 0.00199	0.00199	< 0.00200	0.00200		
o-Xylene		< 0.00199	0.00199	< 0.00200	0.00200		
Total Xylenes		< 0.00199	0.00199	< 0.00200	0.00200		
Total BTEX		< 0.00199	0.00199	< 0.00200	0.00200		
Chloride by EPA 300	Extracted:	Nov-20-19 1	6:11	Nov-20-19	16:11		
	Analyzed:	Nov-20-19 1	9:34	Nov-20-19 2	21:21		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		15.7	9.98	<9.88	9.88		
PH By SW9045D	Extracted:						
SUB: T104704215-19-30	Analyzed:	Nov-21-19 1	0:57	Nov-21-19	10:57		
	Units/RL:	Deg C	RL	Deg C	RL		
Temperature		24.1 +		23.1 +			
PH By SW9045D	Extracted:						
SUB: T104704215-19-30	Analyzed:	Nov-21-19 1	0:57	Nov-21-19	10:57		
	Units/RL:	SU	RL	SU	RL		
pH in Water		8.61		8.67			

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.

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Jessica Kramer Project Assistant



Project Id:012919093Contact:Dan Moir

Project Location:

Certificate of Analysis Summary 643864

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos 36-23-30 State#703H

Date Received in Lab:Wed Nov-20-19 12:35 pmReport Date:22-NOV-19Project Manager:Jessica Kramer

	Lab Id:	643864-0	07	643864-0	08		
Analysis Requested	Field Id:	PH04		PH04A			
Analysis Requested	Depth:	1- ft		2- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	Nov-20-19	10:27	Nov-20-19 1	0:26		
TPH by SW8015 Mod	Extracted:	Nov-20-19	16:30	Nov-20-19 1	6:30		
	Analyzed:	Nov-20-192	23:53	Nov-21-19 0	0:12		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<49.8	49.8		
Diesel Range Organics (DRO)		<49.8	49.8	<49.8	49.8		
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<49.8	49.8		
Total GRO-DRO		<49.8	49.8	<49.8	49.8		
Total TPH		<49.8	49.8	<49.8	49.8		

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.

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Jessica Kramer Project Assistant

Final 1.000



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH01 Lab Sample Id: 643864-001		Matrix: Date Coll	Soil ected: 11.20.1	19 10.07		Date Received:11.2 Sample Depth: 1 ft		5
Analytical Method: Chloride by EI	PA 300				F	Prep Method: E30	00P	
Tech: MAB						% Moisture:		
Analyst: MAB		Date Prep	: 11.20.1	19 16.11	E	Basis: We	t Weight	
Seq Number: 3108187		r	-				C	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98		mg/kg	11.20.19 18.35	U	1
Analytical Method: PH By SW904	5D							
Tech: KBU					9	% Moisture:		
Analyst: KBU					E	Basis: We	t Weight	
Seq Number: 3108243					S	SUB: T104704215	-19-30	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
pH in Water	12408-02-5	8.18			SU	11.21.19 10.57		1
pH in Water Temperature	12408-02-5 TEMP	8.18 23.2			SU Deg C	11.21.19 10.57 11.21.19 10.57	+	1 1
							+	
	ТЕМР				Deg C			
Temperature Analytical Method: TPH by SW80 Tech: DTH	ТЕМР				Deg C F	11.21.19 10.57		
Temperature Analytical Method: TPH by SW80	ТЕМР		: 11.20.	19 16.30	Deg C F 9	11.21.19 10.57 Prep Method: SW % Moisture:		
Temperature Analytical Method: TPH by SW80 Tech: DTH	ТЕМР	23.2	: 11.20.	19 16.30	Deg C F 9	11.21.19 10.57 Prep Method: SW % Moisture:	8015P	
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH	ТЕМР	23.2	: 11.20.	19 16.30	Deg C F 9	11.21.19 10.57 Prep Method: SW % Moisture:	8015P	
TemperatureAnalytical Method: TPH by SW80Tech:DTHAnalyst:DTHSeq Number:3108192	TEMP	23.2 Date Prep		19 16.30	Deg C F 9 F	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We	8015P t Weight	1
TemperatureAnalytical Method: TPH by SW80Tech:DTHAnalyst:DTHSeq Number:3108192Parameter	TEMP 15 Mod Cas Number	23.2 Date Prep Result	RL	19 16.30	Deg C F 9 E Units	 11.21.19 10.57 Prep Method: SW Moisture: Basis: We Analysis Date 	8015P t Weight Flag	1 Dil
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO)	TEMP 15 Mod Cas Number PHC610	23.2 Date Prep Result <49.8	RL 49.8	19 16.30	Deg C F 9 E Units mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Analysis Date 11.20.19 21.53	8015P t Weight Flag U	1 Dil
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	TEMP 15 Mod Cas Number PHC610 C10C28DRO	23.2 Date Prep Result <49.8 <49.8	RL 49.8 49.8	19 16.30	Deg C F 9 E Units mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Analysis Date 11.20.19 21.53 11.20.19 21.53	8015P t Weight Flag U U	1 Dil 1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	TEMP 15 Mod Cas Number PHC610 C10C28DRO PHCG2835	23.2 Date Prep Result <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8	19 16.30	Deg C F 9 E Units mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We <u>Analysis Date</u> 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53	8015P t Weight Flag U U U U	1 Dil 1 1 1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO Total GRO-DRO	TEMP 15 Mod Cas Number PHC610 C10C28DR0 PHCG2835 PHC628	23.2 Date Prep Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8 %	19 16.30 Units	Deg C F 9 E Units mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Malysis Date 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53	8015P t Weight Flag U U U U U	1 Dil 1 1 1 1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Diesel Range Organics (MRO) Total GRO-DRO Total TPH	TEMP 15 Mod Cas Number PHC610 C10C28DR0 PHCG2835 PHC628	23.2 Date Prep Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8		Deg C F 9 E Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We <u>Analysis Date</u> 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53 11.20.19 21.53	8015P t Weight Flag U U U U U U U	1 Dil 1 1 1 1



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH01 Lab Sample Id: 643864-001		Matrix: Date Collecte	Soil d: 11.20.19 10.07		Date Received Sample Depth		19 12.35	, I
Analytical Method: BTEX by EPA 8 Tech: MAB	3021B				Prep Method: % Moisture:	SW50	30B	
Tech: MAB Analyst: MAB		Date Prep:	11.20.19 14.11		Basis:	Wet W	Veight	
Seq Number: 3108185								
Parameter	Cas Number	Result F	RL	Units	Analysis D	ate	Flag	Dil

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	11.20.19 22.44	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	11.20.19 22.44	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	11.20.19 22.44	U	1
m,p-Xylenes	179601-23-1	< 0.00200	0.00200		mg/kg	11.20.19 22.44	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	11.20.19 22.44	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	11.20.19 22.44	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	11.20.19 22.44	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	70-130	11.20.19 22.44		
4-Bromofluorobenzene		460-00-4	103	%	70-130	11.20.19 22.44		



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH01A Lab Sample Id: 643864-002		Matrix: Date Colle	Soil ected: 11.20.	.19 10.06		Date Received:11.2 Sample Depth: 2 ft		5
Analytical Method: Chloride by El	PA 300					Prep Method: E30)0P	
Tech: MAB	11000					% Moisture:		
Analyst: MAB		Date Prep	. 11.20	.19 16.11			t Weight	
Seq Number: 3108187		Date Flep	. 11.20.	.19 10.11		Dasis. We	t weight	
Seq Number. 5100107								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0		mg/kg	11.20.19 18.52	U	1
Analytical Method: PH By SW904	5D							
Tech: KBU						% Moisture:		
Analyst: KBU]	Basis: We	t Weight	
Seq Number: 3108243						SUB: T104704215	U	
			DI		Units	Analysis Date	Flag	Dil
Parameter	Cas Number	Result	RL		Units	Analysis Date		2
Parameter pH in Water	Cas Number 12408-02-5	Result 8.29	KL		SU	11.21.19 10.57		1
			KL				+	
pH in Water	12408-02-5 TEMP	8.29	<u>KL</u>		SU Deg C	11.21.19 10.57	+	1
pH in Water Temperature	12408-02-5 TEMP	8.29	<u>KL</u>		SU Deg C	11.21.19 10.57 11.21.19 10.57	+	1
pH in Water Temperature Analytical Method: TPH by SW80	12408-02-5 TEMP	8.29		.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture:	+	1
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH	12408-02-5 TEMP	8.29 24.7		.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture:	+ 8015P	1
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH	12408-02-5 TEMP	8.29 24.7		.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture:	+ 8015P	1
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192	12408-02-5 TEMP 15 Mod	8.29 24.7 Date Prep	: 11.20.	.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We	+ 8015P t Weight	1
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter	12408-02-5 TEMP 15 Mod Cas Number	8.29 24.7 Date Prep Result	: 11.20. RL	.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Analysis Date	+ 8015P t Weight Flag	1 1 Dil
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO)	12408-02-5 TEMP 15 Mod Cas Number PHC610	8.29 24.7 Date Prep Result <50.2	: 11.20. RL 50.2	.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We <u>Analysis Date</u> 11.20.19 22.13	+ 8015P t Weight Flag U	1 1 Dil
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	12408-02-5 TEMP 15 Mod Cas Number PHC610 C10C28DRO	8.29 24.7 Date Prep Result <50.2 <50.2	: 11.20. RL 50.2 50.2	.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We <u>Analysis Date</u> 11.20.19 22.13 11.20.19 22.13	+ 8015P t Weight Flag U U	1 1 Dil 1
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	12408-02-5 TEMP 15 Mod Cas Number PHC610 C10C28DRO PHCG2835	8.29 24.7 Date Prep Result <50.2 <50.2 <50.2	: 11.20. RL 50.2 50.2 50.2	.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Analysis Date 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13	+ 8015P t Weight Flag U U U U	1 1 1 1 1 1 1
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO	12408-02-5 TEMP 15 Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	8.29 24.7 Date Prep Result <50.2 <50.2 <50.2 <50.2 <50.2	: 11.20. RL 50.2 50.2 50.2 50.2 50.2	.19 16.30 Units	SU Deg C Units mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Malysis Date 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13	+ 8015P t Weight Flag U U U U	1 1 1 1 1 1 1 1
pH in Water Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO Total TPH	12408-02-5 TEMP 15 Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628 PHC635	8.29 24.7 Date Prep Result <50.2 <50.2 <50.2 <50.2 <50.2	: 11.20. RL 50.2 50.2 50.2 50.2 50.2 50.2 %		SU Deg C Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Analysis Date 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13 11.20.19 22.13	+ 8015P t Weight U U U U U U U U	1 1 1 1 1 1 1 1



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: Lab Sample Id	PH01A 1: 643864-002		Matrix: Date Collect	Soil ed: 11.20.19 10.06		Date Received:1 Sample Depth:2		5
Analytical Me Tech:	ethod: BTEX by EPA 80 MAB	021B				Prep Method: S % Moisture:	SW5030B	
Analyst:	MAB		Date Prep:	11.20.19 14.11			Wet Weight	
Seq Number: Parameter	3108185	Cas Number	Result	RL	Units	Analysis Date	e Flag	Dil
Dangana		71 42 0	<0.00108 0	00109		11 20 10 22 01	8	1

						8	
71-43-2	< 0.00198	0.00198		mg/kg	11.20.19 23.01	U	1
108-88-3	< 0.00198	0.00198		mg/kg	11.20.19 23.01	U	1
100-41-4	< 0.00198	0.00198		mg/kg	11.20.19 23.01	U	1
179601-23-1	< 0.00198	0.00198		mg/kg	11.20.19 23.01	U	1
95-47-6	< 0.00198	0.00198		mg/kg	11.20.19 23.01	U	1
1330-20-7	< 0.00198	0.00198		mg/kg	11.20.19 23.01	U	1
	< 0.00198	0.00198		mg/kg	11.20.19 23.01	U	1
	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
	460-00-4	107	%	70-130	11.20.19 23.01		
	540-36-3	99	%	70-130	11.20.19 23.01		
	108-88-3 100-41-4 179601-23-1 95-47-6	108-88-3 <0.00198	108-88-3 <0.00198	108-88-3 <0.00198	108-88-3 <0.00198	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH02 Lab Sample Id: 643864-003		Matrix: Date Colle	Soil ected: 11.20.	.19 10.15		Date Received:11.2 Sample Depth: 1 ft		5
Analytical Method: Chloride by E	PA 300					Prep Method: E30)0P	
Tech: MAB	111 500					% Moisture:	01	
Analyst: MAB		Date Prep	11.20	.19 16.11			t Weight	
Seq Number: 3108187		Date Prep	11.20	.19 10.11		Dasis. We	t weight	
Seq Number: 5108187								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.7	10.1		mg/kg	11.20.19 18.58		1
Analytical Method: PH By SW904	45D							
Tech: KBU					,	% Moisture:		
Analyst: KBU							t Weight	
Seq Number: 3108243						SUB: T104704215	U	
Seq Number: 5108245					1	SUB. 1104704213	-19-30	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
pH in Water	12408-02-5	8.37			SU	11.21.19 10.57		1
pH in Water Temperature	12408-02-5 TEMP	8.37 25.2			SU Deg C	11.21.19 10.57 11.21.19 10.57	+	1 1
Temperature	ТЕМР				Deg C	11.21.19 10.57		
Temperature Analytical Method: TPH by SW80	ТЕМР				Deg C	11.21.19 10.57 Prep Method: SW		
Temperature Analytical Method: TPH by SW80 Tech: DTH	ТЕМР				Deg C	11.21.19 10.57 Prep Method: SW % Moisture:	8015P	
TemperatureAnalytical Method:Tech:DTHAnalyst:DTH	ТЕМР		11.20	.19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture:		
Temperature Analytical Method: TPH by SW80 Tech: DTH	ТЕМР	25.2	11.20	19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture:	8015P	
TemperatureAnalytical Method:Tech:DTHAnalyst:DTH	ТЕМР	25.2	11.20. RL	.19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture:	8015P	
TemperatureAnalytical Method: TPH by SW80Tech:DTHAnalyst:DTHSeq Number:3108192	TEMP)15 Mod	25.2 Date Prep		.19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet	8015P t Weight	1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter	TEMP)15 Mod Cas Number	25.2 Date Prep Result	RL	.19 16.30	Deg C	 11.21.19 10.57 Prep Method: SW Moisture: Basis: Wether Analysis Date 	8015P t Weight Flag	1 Dil
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO)	TEMP)15 Mod Cas Number PHC610	25.2 Date Prep Result <50.2	RL 50.2	.19 16.30	Deg C Units	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet <u>Analysis Date</u> 11.20.19 22.33	8015P t Weight Flag U	1 Dil
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	TEMP 015 Mod Cas Number PHC610 C10C28DRO	25.2 Date Prep Result <50.2 <50.2	RL 50.2 50.2	.19 16.30	Deg C Units mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.20.19 22.33 11.20.19 22.33	8015P t Weight Flag U U	1 Dil 1
Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	TEMP 015 Mod Cas Number PHC610 C10C28DRO PHCG2835	25.2 Date Prep Result <50.2 <50.2 <50.2	RL 50.2 50.2 50.2	.19 16.30	Deg C Units mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.20.19 22.33 11.20.19 22.33 11.20.19 22.33	8015P t Weight Flag U U U U	1 Dil 1 1 1
Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO	TEMP 015 Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	25.2 Date Prep Result <50.2 <50.2 <50.2 <50.2 <50.2 <50.2	RL 50.2 50.2 50.2 50.2 50.2	.19 16.30 Units	Deg C Units mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.20.19 22.33 11.20.19 22.33 11.20.19 22.33 11.20.19 22.33	8015P t Weight Flag U U U U U	1 Dil 1 1 1 1
Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO Total TPH	TEMP 015 Mod Cas Number PHC610 C10C28DRO PHC62835 PHC628 PHC635	25.2 Date Prep Result <50.2 <50.2 <50.2 <50.2 <50.2 <50.2	RL 50.2 50.2 50.2 50.2 50.2 50.2 %		Deg C Units mg/kg mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.20.19 22.33 11.20.19 22.33 11.20.19 22.33 11.20.19 22.33 11.20.19 22.33	8015P t Weight Flag U U U U U U U	1 Dil 1 1 1 1



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id:PH02Lab Sample Id:643864-003		Matrix: Date Collecte	Soil ed: 11.20.19 10.15		Date Received Sample Depth	l:11.20.19 12.3 :1 ft	5
Analytical Method: BTEX by EPA 802 Tech: MAB	21B				Prep Method: % Moisture:	SW5030B	
Analyst: MAB		Date Prep:	11.20.19 14.11		Basis:	Wet Weight	
Seq Number: 3108185 Parameter	Cas Number	Result H	RL	Units	Analysis D	ate Flag	Dil

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	11.20.19 23.19	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	11.20.19 23.19	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	11.20.19 23.19	U	1
m,p-Xylenes	179601-23-1	< 0.00202	0.00202		mg/kg	11.20.19 23.19	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	11.20.19 23.19	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	11.20.19 23.19	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	11.20.19 23.19	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	111	%	70-130	11.20.19 23.19		
1,4-Difluorobenzene		540-36-3	97	%	70-130	11.20.19 23.19		



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH02A Lab Sample Id: 643864-004		Matrix: Date Colle	Soil ected: 11.20.19 10.14		Date Received:11.2 Sample Depth: 2 ft		5
Analytical Method: Chloride by EPA	A 300				Prep Method: E30)0P	
Tech: MAB					% Moisture:		
Analyst: MAB		Date Prep	: 11.20.19 16.11			t Weight	
Seq Number: 3108187		Duterrep					
Soq Ramoon Crosses							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	11.20.19 19.04	U	1
Analytical Method: PH By SW9045	SD						
Tech: KBU					% Moisture:		
Analyst: KBU					Basis: We	t Weight	
Seq Number: 3108243					SUB: T104704215	-19-30	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH in Water	12408-02-5	8.03		SU	11.21.19 10.57		1
Temperature	TEMP	24.7		Deg C	11.21.19 10.57	+	1
Analytical Method: TPH by SW801						00150	
The second se	5 Mod				Prep Method: SW	8015P	
Tech: DTH	5 Mod				% Moisture:		
Analyst: DTH	5 Mod	Date Prep	: 11.20.19 16.30		% Moisture:	8015P t Weight	
	5 Mod	Date Prep	: 11.20.19 16.30		% Moisture:		
Analyst: DTH	5 Mod Cas Number	-	: 11.20.19 16.30 RL		% Moisture:		Dil
Analyst: DTH Seq Number: 3108192		-			% Moisture: Basis: Wet	t Weight	Dil 1
Analyst: DTH Seq Number: 3108192 Parameter	Cas Number	Result	RL	Units	% Moisture: Basis: Wet Analysis Date	t Weight Flag	
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result <49.9	RL 49.9	Units mg/kg	% Moisture: Basis: Wet Analysis Date 11.20.19 22.53	t Weight Flag U	1
Analyst:DTHSeq Number:3108192ParameterGasoline Range Hydrocarbons (GRO)Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	Result <49.9 <49.9	RL 49.9 49.9	Units mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 11.20.19 22.53 11.20.19 22.53	t Weight Flag U U	1
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835	Result <49.9 <49.9 <49.9 <49.9	RL 49.9 49.9 49.9	Units mg/kg mg/kg	% Moisture: Basis: Wer Analysis Date 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53	t Weight Flag U U U	1 1 1
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO	Cas Number PHC610 C10C28DRO PHCG2835 PHC628	Result <49.9 <49.9 <49.9 <49.9 <49.9 <49.9 <49.9 <49.9	RL 49.9 49.9 49.9 49.9 49.9 49.9 %	Units mg/kg mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53	t Weight Flag U U U U U	1 1 1 1
Analyst:DTHSeq Number:3108192ParameterGasoline Range Hydrocarbons (GRO)Diesel Range Organics (DRO)Motor Oil Range Hydrocarbons (MRO)Total GRO-DROTotal TPH	Cas Number PHC610 C10C28DRO PHCG2835 PHC628	Result <49.9 <49.9 <49.9 <49.9 <49.9 <49.9 <49.9 <49.9	RL 49.9 49.9 49.9 49.9 49.9 49.9 49.9 %	Units mg/kg mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53 11.20.19 22.53 Analysis Date	t Weight Flag U U U U U U	1 1 1 1



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH02A Lab Sample Id: 643864-004		Matrix: Date Collecte	Soil d: 11.20.19 10.14		Date Received Sample Depth	:11.20.19 12.3 2 ft	35
Analytical Method: BTEX by EPA 8 Tech: MAB	021B				Prep Method: % Moisture:	SW5030B	
Analyst: MAB		Date Prep:	11.20.19 14.11		Basis:	Wet Weight	
Seq Number: 3108185 Parameter	Cas Number	Result F	L	Units	Analysis Da	ite Flag	Dil

Cas Number	· Result	RL		Units	Analysis Date	Flag	Dil
71-43-2	< 0.00200	0.00200		mg/kg	11.20.19 23.36	U	1
108-88-3	< 0.00200	0.00200		mg/kg	11.20.19 23.36	U	1
100-41-4	< 0.00200	0.00200		mg/kg	11.20.19 23.36	U	1
179601-23-1	< 0.00200	0.00200		mg/kg	11.20.19 23.36	U	1
95-47-6	< 0.00200	0.00200		mg/kg	11.20.19 23.36	U	1
1330-20-7	< 0.00200	0.00200		mg/kg	11.20.19 23.36	U	1
	< 0.00200	0.00200		mg/kg	11.20.19 23.36	U	1
	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
	540-36-3	100	%	70-130	11.20.19 23.36		
	460-00-4	112	%	70-130	11.20.19 23.36		
	71-43-2 108-88-3 100-41-4 179601-23-1 95-47-6	71-43-2 <0.00200	71-43-2 <0.00200 0.00200 108-88-3 <0.00200	71-43-2 <0.00200	71-43-2 <0.00200 0.00200 mg/kg 108-88-3 <0.00200	71-43-2 <0.00200 mg/kg 11.20.19 23.36 108-88-3 <0.00200	71-43-2 <0.00200 mg/kg 11.20.19 23.36 U 108-88-3 <0.00200



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: Lab Sample I	PH03 d: 643864-005		Matrix: Date Colle	Soil ected: 11.20	.19 10.21		Date Received:11. Sample Depth:1 ft		5
Analytical Me	ethod: Chloride by EPA	300				I	Prep Method: E30	00P	
Tech:	MAB						% Moisture:		
Analyst:	MAB		Date Prep	· 11.20	.19 16.11			t Weight	
Seq Number:			Dute Trep						
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	12.6	9.92		mg/kg	11.20.19 19.10		1
	ethod: PH By SW9045D)							
Tech:	KBU						% Moisture:		
Analyst:	KBU							t Weight	
Seq Number:	3108243					2	SUB: T104704215	5-19-30	
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Parameter pH in Water		Cas Number 12408-02-5	Result 8.18	RL		SU	11.21.19 10.57	Flag	Dil 1
				RL				Flag +	
pH in Water Temperature		12408-02-5 TEMP	8.18	RL		SU Deg C	11.21.19 10.57 11.21.19 10.57	+	1
pH in Water Temperature Analytical Me	ethod: TPH by SW8015	12408-02-5 TEMP	8.18	RL		SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW	+	1
pH in Water Temperature Analytical Me Tech:	DTH	12408-02-5 TEMP	8.18 24.9			SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture:	+ /8015P	1
pH in Water Temperature Analytical Me Tech: Analyst:	DTH DTH	12408-02-5 TEMP	8.18		.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture:	+	1
pH in Water Temperature Analytical Me Tech:	DTH DTH	12408-02-5 TEMP	8.18 24.9		.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture:	+ /8015P	1
pH in Water Temperature Analytical Me Tech: Analyst:	DTH DTH	12408-02-5 TEMP	8.18 24.9 Date Prep		.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture:	+ /8015P	1
pH in Water Temperature Analytical Me Tech: Analyst: Seq Number: Parameter	DTH DTH	12408-02-5 TEMP Mod	8.18 24.9 Date Prep	: 11.20	.19 16.30	SU Deg C	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We	+ /8015P et Weight	1
pH in Water Temperature Analytical Me Tech: Analyst: Seq Number: Parameter	DTH DTH 3108192 Hydrocarbons (GRO)	12408-02-5 TEMP Mod Cas Number	8.18 24.9 Date Prep Result	: 11.20 RL	.19 16.30	SU Deg C I Units	11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Analysis Date	+ 78015P et Weight Flag	1 1 Dil
pH in Water Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Or Diesel Range Or Motor Oil Range F	DTH DTH 3108192 Hydrocarbons (GRO) ganics (DRO) Iydrocarbons (MRO)	12408-02-5 TEMP Mod Cas Number PHC610 C10C28DRO PHCG2835	8.18 24.9 Date Prep Result <50.1 <50.1 <50.1	: 11.20 RL 50.1 50.1 50.1	.19 16.30	SU Deg C J Units mg/kg mg/kg mg/kg	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Malysis Date 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13	+ /8015P et Weight Flag U U U U	1 1 1 1 1 1 1
pH in Water Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Diesel Range On Motor Oil Range F Total GRO-DRO	DTH DTH 3108192 Hydrocarbons (GRO) ganics (DRO) Iydrocarbons (MRO)	12408-02-5 TEMP Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	8.18 24.9 Date Prep Result <50.1 <50.1 <50.1 <50.1	: 11.20 RL 50.1 50.1 50.1 50.1 50.1	.19 16.30	SU Deg C I Units mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: Basis: We 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13	+ /8015P et Weight Flag U U U U U	1 1 1 1 1 1 1 1
pH in Water Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Or Diesel Range Or Motor Oil Range F	DTH DTH 3108192 Hydrocarbons (GRO) ganics (DRO) Iydrocarbons (MRO)	12408-02-5 TEMP Mod Cas Number PHC610 C10C28DRO PHCG2835	8.18 24.9 Date Prep Result <50.1 <50.1 <50.1	: 11.20 RL 50.1 50.1 50.1 50.1 50.1	.19 16.30	SU Deg C J Units mg/kg mg/kg mg/kg	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Malysis Date 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13	+ /8015P et Weight Flag U U U U	1 1 1 1 1 1 1
pH in Water Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Diesel Range On Motor Oil Range F Total GRO-DRO	DTH DTH 3108192 Hydrocarbons (GRO) ganics (DRO) Iydrocarbons (MRO)	12408-02-5 TEMP Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	8.18 24.9 Date Prep Result <50.1 <50.1 <50.1 <50.1 <50.1	: 11.20 RL 50.1 50.1 50.1 50.1 50.1 50.1 %	.19 16.30 Units	SU Deg C I Units mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: Basis: We 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13	+ /8015P et Weight Flag U U U U U	1 1 1 1 1 1 1 1
pH in Water Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Diesel Range On Motor Oil Range F Total GRO-DRO Total TPH	DTH DTH 3108192 Hydrocarbons (GRO) ganics (DRO) Iydrocarbons (MRO)	12408-02-5 TEMP Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	8.18 24.9 Date Prep Result <50.1 <50.1 <50.1 <50.1 <50.1	: 11.20 RL 50.1 50.1 50.1 50.1 50.1		SU Deg C Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 11.21.19 10.57 11.21.19 10.57 Prep Method: SW % Moisture: Basis: Basis: We 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13 11.20.19 23.13	+ /8015P et Weight Flag U U U U U U U	1 1 1 1 1 1 1 1



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH03 Lab Sample Id: 643864-005		Matrix: Date Collecte	Soil d: 11.20.19 10.21		Date Received Sample Depth		0.19 12.35	
Analytical Method: BTEX by EPA 802 Tech: MAB Analyst: MAB	21B	Date Prep:	11.20.19 14.11		Prep Method: % Moisture: Basis:		030B Weight	
Seq Number: 3108185	Cas Number	Result R	Ţ	T T •/			DI	D ''
Parameter	Cas Number	Result R	L	Units	Analysis Da	ate	Flag	Dil

rarameter	Cas Nulliber	r Kesuit	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	11.20.19 23.53	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	11.20.19 23.53	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	11.20.19 23.53	U	1
m,p-Xylenes	179601-23-1	< 0.00198	0.00198		mg/kg	11.20.19 23.53	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	11.20.19 23.53	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	11.20.19 23.53	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	11.20.19 23.53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	108	%	70-130	11.20.19 23.53		
1,4-Difluorobenzene		540-36-3	90	%	70-130	11.20.19 23.53		



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH03A Lab Sample Id: 643864-006		Matrix: Date Colle	Soil cted: 11.20.1	9 10.20		Date Received:11.3 Sample Depth: 2 ft		5
Analytical Method: Chloride by E	PA 300				F	Prep Method: E30)()P	
Tech: MAB	IA 300					% Moisture:	001	
Analyst: MAB		Date Prep:	11.20.1	0 16 11			t Weight	
Seq Number: 3108187		Date Prep:	11.20.1	9 10.11	1		t weight	
Seq Number. 5106187								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.8	9.88		mg/kg	11.20.19 19.28		1
Analytical Method: PH By SW904	45D							
Tech: KBU					9	% Moisture:		
Analyst: KBU					E	Basis: We	t Weight	
Seq Number: 3108243					S	SUB: T104704215	5-19-30	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
pH in Water	12408-02-5	8.15			SU	11.21.19 10.57		1
pH in Water Temperature	12408-02-5 TEMP	8.15 24.6			SU Deg C	11.21.19 10.57 11.21.19 10.57	+	1 1
•							+	
•	ТЕМР				Deg C			
Temperature	ТЕМР				Deg C F	11.21.19 10.57		
Temperature Analytical Method: TPH by SW80	ТЕМР		11.20.1	9 16.30	Deg C F 9	11.21.19 10.57 Prep Method: SW % Moisture:		
Temperature Analytical Method: Tech: DTH	ТЕМР	24.6	11.20.1	9 16.30	Deg C F 9	11.21.19 10.57 Prep Method: SW % Moisture:	8015P	
TemperatureAnalytical Method: TPH by SW80Tech:DTHAnalyst:DTH	ТЕМР	24.6	11.20.1 RL	9 16.30	Deg C F 9	11.21.19 10.57 Prep Method: SW % Moisture:	8015P	
TemperatureAnalytical Method: TPH by SW80Tech:DTHAnalyst:DTHSeq Number:3108192	TEMP 015 Mod	24.6 Date Prep:		9 16.30	Deg C F 9 F	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We	78015P t Weight	1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter	TEMP)15 Mod Cas Number	24.6 Date Prep: Result	RL	9 16.30	Deg C F 9 E Units	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We Analysis Date	8015P t Weight Flag	1 Dil
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO)	TEMP)15 Mod Cas Number PHC610	24.6 Date Prep: Result <49.8	RL 49.8	9 16.30	Deg C F 9 E Units mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We <u>Analysis Date</u> 11.20.19 23.33	8015P t Weight Flag U	1 Dil
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	TEMP 015 Mod Cas Number PHC610 C10C28DRO	24.6 Date Prep: Result <49.8 <49.8	RL 49.8 49.8	9 16.30	Deg C F 9 E Units mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We <u>Analysis Date</u> 11.20.19 23.33 11.20.19 23.33	18015P t Weight Flag U U	1 Dil 1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	TEMP 015 Mod Cas Number PHC610 C10C28DRO PHCG2835	24.6 Date Prep: Result <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8	9 16.30	Deg C F 9 E Units mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: We <u>Analysis Date</u> 11.20.19 23.33 11.20.19 23.33 11.20.19 23.33	78015P t Weight Flag U U U U	1 Dil 1 1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO	TEMP 015 Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	24.6 Date Prep: Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8 %	9 16.30 Units	Deg C F 9 E Units mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW 6 Moisture: Basis: We Analysis Date 11.20.19 23.33 11.20.19 23.33 11.20.19 23.33 11.20.19 23.33	78015P t Weight Flag U U U U U	1 Dil 1 1 1 1
Temperature Analytical Method: TPH by SW80 Tech: DTH Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO Total TPH	TEMP 015 Mod Cas Number PHC610 C10C28DRO PHC628 PHC628 PHC635	24.6 Date Prep: Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8		Deg C F 9 E Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW 6 Moisture: Basis: We Analysis Date 11.20.19 23.33 11.20.19 23.33 11.20.19 23.33 11.20.19 23.33 11.20.19 23.33	78015P t Weight Flag U U U U U U U	1 Dil 1 1 1 1



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id:PH03ALab Sample Id:643864-006		Matrix: Date Collecte	Soil d: 11.20.19 10.20		Date Received:11.20.19 12 Sample Depth: 2 ft			
Analytical Method: BTEX by EPA 80 Tech: MAB Analyst: MAB	21B	Date Prep:	11.20.19 14.11		Prep Method: % Moisture: Basis:		030B Weight	
Seq Number: 3108185 Parameter	Cas Number	Result R	L	Units	Analysis Da	ate	Flag	Dil

r al alleter	Cas Number	Kesuit	KL		Units	Analysis Date	riag	Dii
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	11.21.19 00.11	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	11.21.19 00.11	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	11.21.19 00.11	U	1
m,p-Xylenes	179601-23-1	< 0.00198	0.00198		mg/kg	11.21.19 00.11	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	11.21.19 00.11	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	11.21.19 00.11	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	11.21.19 00.11	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	112	%	70-130	11.21.19 00.11		
1,4-Difluorobenzene		540-36-3	99	%	70-130	11.21.19 00.11		



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH04 Lab Sample Id: 643864-007		Matrix: Date Colle	Soil ected: 11.20.19	9 10.27		Date Received:11. Sample Depth: 1 ft		5
Analytical Method: Chloride by EPA	A 300				F	Prep Method: E30)0P	
Tech: MAB						% Moisture:		
Analyst: MAB		Date Prep	11.20.1	9 16.11	H	Basis: We	t Weight	
Seq Number: 3108187		Buterrep					6	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.7	9.98		mg/kg	11.20.19 19.34	8	1
Analytical Method: PH By SW9045	D							
Tech: KBU					9	% Moisture:		
Analyst: KBU					I	Basis: We	t Weight	
Seq Number: 3108243					S	SUB: T104704215	5-19-30	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
pH in Water	12408-02-5	8.61			SU	11.21.19 10.57		1
Temperature	TEMP	24.1			Deg C	11.21.19 10.57	+	1
Analytical Method: TPH by SW801	5 Mod							
	JIVIOU				F	Prep Method: SW	/8015P	
Tech: DTH	5 Widd					Prep Method: SW 6 Moisture:	/8015P	
Tech: DTH Analyst: DTH	5 WOU	Date Prep	: 11.20.19	9 16.30	9	% Moisture:	78015P t Weight	
	5 1000	Date Prep	: 11.20.19	9 16.30	9	% Moisture:		
Analyst: DTH	Cas Number	Date Prep Result	: 11.20.19 RL	9 16.30	9	% Moisture:		Dil
Analyst:DTHSeq Number:3108192				9 16.30	9 F	6 Moisture: 3asis: We	t Weight	Dil
Analyst: DTH Seq Number: 3108192 Parameter	Cas Number	Result	RL	9 16.30	9 H Units	6 Moisture: Basis: We Analysis Date	t Weight Flag	
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610	Result <49.8	RL 49.8	9 16.30	9 H Units mg/kg	6 Moisture: Basis: We Analysis Date 11.20.19 23.53	t Weight Flag U U U	1
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO	Cas Number PHC610 C10C28DRO PHCG2835 PHC628	Result <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8	9 16.30	9 E Units mg/kg mg/kg	6 Moisture: Basis: We Analysis Date 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53	t Weight Flag U U U U U	1 1 1 1
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835	Result <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8	9 16.30	9 E Units mg/kg mg/kg mg/kg	6 Moisture: Basis: We Analysis Date 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53	t Weight Flag U U U	1 1 1
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO	Cas Number PHC610 C10C28DRO PHCG2835 PHC628	Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8 %	9 16.30 Units	9 E Units mg/kg mg/kg mg/kg mg/kg	6 Moisture: Basis: We Analysis Date 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53	t Weight Flag U U U U U	1 1 1 1
Analyst: DTH Seq Number: 3108192 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total GRO-DRO Total TPH	Cas Number PHC610 C10C28DRO PHCG2835 PHC628	Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8		9 E Units mg/kg mg/kg mg/kg mg/kg mg/kg	6 Moisture: Basis: We Analysis Date 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53 11.20.19 23.53	t Weight Flag U U U U U U U	1 1 1 1



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil
Seq Number:	3108185								
Analyst:	MAB		Date Prep:	11.20.19 14.11		Basis:	Wet	Weight	
Tech:	MAB					% Moisture:			
Analytical M	ethod: BTEX by EPA 80	21B				Prep Method:	SW5	5030B	
Lab Sample I	d: 643864-007		Date Collect	ed: 11.20.19 10.27		Sample Depth: 1 ft			
Sample Id:	PH04		Matrix:	Soil		Date Received	d:11.2	0.19 12.35	

						ĩ	0	
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	11.21.19 00.28	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	11.21.19 00.28	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	11.21.19 00.28	U	1
m,p-Xylenes	179601-23-1	< 0.00199	0.00199		mg/kg	11.21.19 00.28	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	11.21.19 00.28	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	11.21.19 00.28	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	11.21.19 00.28	U	1
			%					
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	111	%	70-130	11.21.19 00.28		
1,4-Difluorobenzene		540-36-3	92	%	70-130	11.21.19 00.28		



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: Lab Sample I	PH04A (d: 643864-008		Matrix: Date Colle	Soil ected: 11.20.	19 10.26	Date Received:11.20.19 12.35 Sample Depth: 2 ft				
Analytical Me	ethod: Chloride by EPA	A 300				I	Prep Method: E30	0P		
Tech:	MAB						% Moisture:			
Analyst:	MAB		Date Prep	· 11.20	19 16.11			t Weight		
Seq Number:	3108187		Dute Trep	. 11.201	.,					
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Chloride		16887-00-6	<9.88	9.88		mg/kg	11.20.19 21.21	U	1	
Analytical M	ethod: PH By SW9045	D								
Tech:	KBU					ç	% Moisture:			
Analyst:	KBU					I	Basis: Wet	t Weight		
Seq Number:	3108243					S	SUB: T104704215	-19-30		
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
pH in Water		12408-02-5	8.67			SU	11.21.19 10.57		1	
pH in Water Temperature		12408-02-5 TEMP	8.67 23.1			SU Deg C	11.21.19 10.57 11.21.19 10.57	+	1 1	
Temperature	athody TDU by SW201	TEMP				Deg C	11.21.19 10.57			
Temperature Analytical Me	ethod: TPH by SW801:	TEMP				Deg C	11.21.19 10.57 Prep Method: SW			
Temperature Analytical Me Tech:	DTH	TEMP	23.1	11.20	10.16.20	Deg C	11.21.19 10.57 Prep Method: SW % Moisture:	8015P		
Temperature Analytical Me Tech: Analyst:	DTH DTH	TEMP		: 11.20.	19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture:			
Temperature Analytical Me Tech:	DTH DTH	TEMP	23.1	: 11.20. RL	19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture:	8015P		
Temperature Analytical Mo Tech: Analyst: Seq Number: Parameter	DTH DTH	TEMP 5 Mod	23.1 Date Prep		19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet	8015P t Weight	1	
Temperature Analytical Mo Tech: Analyst: Seq Number: Parameter	DTH DTH 3108192 Hydrocarbons (GRO)	TEMP 5 Mod Cas Number	23.1 Date Prep Result	RL	19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date	8015P t Weight Flag	1 Dil	
Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Diesel Range On	DTH DTH 3108192 Hydrocarbons (GRO)	TEMP 5 Mod Cas Number PHC610	23.1 Date Prep Result <49.8	RL 49.8	19 16.30	Deg C J Units mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet <u>Analysis Date</u> 11.21.19 00.12	8015P t Weight Flag U	1 Dil	
Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Diesel Range On	DTH DTH 3108192 Hydrocarbons (GRO) rganics (DRO) Hydrocarbons (MRO)	TEMP 5 Mod Cas Number PHC610 C10C28DRO	23.1 Date Prep Result <49.8 <49.8	RL 49.8 49.8	19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.21.19 00.12 11.21.19 00.12	8015P t Weight Flag U U	1 Dil 1	
Temperature Analytical Ma Tech: Analyst: Seq Number: Parameter Gasoline Range On Motor Oil Range F	DTH DTH 3108192 Hydrocarbons (GRO) rganics (DRO) Hydrocarbons (MRO)	TEMP 5 Mod Cas Number PHC610 C10C28DRO PHCG2835	23.1 Date Prep Result <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8	19 16.30	Deg C	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.21.19 00.12 11.21.19 00.12 11.21.19 00.12	8015P t Weight Flag U U U U	1 Dil 1 1	
Analytical Me Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range Diesel Range Or Motor Oil Range F Total GRO-DRO	DTH DTH 3108192 Hydrocarbons (GRO) rganics (DRO) Hydrocarbons (MRO) O	TEMP 5 Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	23.1 Date Prep Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8	19 16.30 Units	Deg C J Units mg/kg mg/kg mg/kg mg/kg	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.21.19 00.12 11.21.19 00.12 11.21.19 00.12 11.21.19 00.12	8015P t Weight Flag U U U U U	1 Dil 1 1 1 1	
Temperature Analytical Me Tech: Analyst: Seq Number: Parameter Gasoline Range On Motor Oil Range F Total GRO-DRO Total TPH	DTH DTH 3108192 Hydrocarbons (GRO) rganics (DRO) Hydrocarbons (MRO) O	TEMP 5 Mod Cas Number PHC610 C10C28DRO PHCG2835 PHC628	23.1 Date Prep Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	RL 49.8 49.8 49.8 49.8 49.8 49.8 %		Deg C	11.21.19 10.57 Prep Method: SW % Moisture: Basis: Wet Analysis Date 11.21.19 00.12 11.21.19 00.12 11.21.19 00.12 11.21.19 00.12 11.21.19 00.12	8015P t Weight Flag U U U U U U U	1 Dil 1 1 1 1	



Certificate of Analytical Results 643864

LT Environmental, Inc., Arvada, CO

Sample Id: PH04A Lab Sample Id: 643864-008		Matrix: Date Collecte	Soil ed: 11.20.19 10.26	_	Date Received:11.20.19 12 Sample Depth: 2 ft		
Analytical Method: BTEX by EPA Tech: MAB	A 8021B				rep Method: Moisture:	SW5030B	
Analyst: MAB Seq Number: 3108185		Date Prep:	11.20.19 14.11			Wet Weight	
Parameter	Cas Number	Result H	RL .	Units	Analysis Da	te Flag	Dil

Parameter	Cas Number	e Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	11.21.19 00.46	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	11.21.19 00.46	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	11.21.19 00.46	U	1
m,p-Xylenes	179601-23-1	< 0.00200	0.00200		mg/kg	11.21.19 00.46	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	11.21.19 00.46	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	11.21.19 00.46	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	11.21.19 00.46	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	115	%	70-130	11.21.19 00.46		
1,4-Difluorobenzene		540-36-3	100	%	70-130	11.21.19 00.46		



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- ** Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable

SMP Clie	ent Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	ratory Control Sample Duplicate
MD/SD	Method Duplicate/Sample Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Los Medanos 36-23-30 State#703H

Analytical Method:	Chloride by EPA 3	00						Pr	ep Metho	d: E300	0 P	
Seq Number:	3108187			Matrix:	Solid				Date Pre	p: 11.2	0.19	
MB Sample Id:	7690830-1-BLK		LCS Sar	nple Id:	7690830-	1-BKS		LCSI	O Sample	Id: 7690)830-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	251	100	90-110	1	20	mg/kg	11.20.19 18:23	

Analytical Method:	Chloride by EPA 3	00						Pr	ep Metho	od: E30	0P	
Seq Number:	3108187			Matrix:	Soil				Date Pre	ep: 11.2	0.19	
Parent Sample Id:	643862-001		MS Sample Id:			01 S		MSI	O Sample	Id: 643	362-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	it Units	Analysis Date	Flag
Chloride	995	196	1140	74	1160	83	90-110	2	20	mg/kg	11.20.19 19:59	Х

Analytical Method:	Chloride by EPA 30)0						P	rep Metho	od: E30	0P	
Seq Number:	3108187			Matrix:	Soil				Date Pre	ep: 11.2	0.19	
Parent Sample Id:	643864-001		MS Sar	nple Id:	643864-00	01 S		MS	D Sample	e Id: 643	864-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	<9.90	198	207	105	207	104	90-110	0	20	mg/kg	11.20.19 18:41	

Analytical Method: Seq Number: Parent Sample Id:	PH By SW9045D 3108243 643531-003	Matrix: MD Sample Id:	Product 643531-003 D					
Parameter	Parent Result	MD Result		%RPD	RPD Limit	Units	Analysis Date	Flag
pH in Water Temperature	9.55 23.6	9.56 23.6		0 0	20 25	SU Deg C	11.21.19 10:57 11.21.19 10:57	

Analytical Method:	PH By SW9045D							
Seq Number:	3108243	Matrix:	Soil					
Parent Sample Id:	643864-001	MD Sample Id:	643864-001 D					
_	Parent	MD		%RPD	RPD Limi	it Units	Analysis	
Parameter	Result	Result		/014 D			Date	Flag
Parameter pH in Water				0	20	SU	•	Flag

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

Final 1.000



Los Medanos 36-23-30 State#703H

Analytical Method: Seq Number:	3108192		od	LCS Sar	Matrix:	Solid 7690829-				Prep Method Date Prep	p: 11.2	8015P 20.19 2829-1-BSD	
MB Sample Id:	7690829-1	-BLK MB	Cuil to	LCS Sa	LCS			Limits		• RPD Limit		Analysis	
Parameter		Result	Spike Amount	Result	%Rec	LCSD Result	LCSD %Rec	Linns	70KFL	FID Linin	Units	Date	Flag
Gasoline Range Hydrocarbo	ons (GRO)	< 50.0	1000	813	81	787	79	70-135	3	35	mg/kg	11.20.19 16:34	
Diesel Range Organics ((DRO)	<50.0	1000	947	95	917	92	70-135	3	35	mg/kg	11.20.19 16:34	
Surrogate		MB %Rec	MB Flag			LCS Flag	LCSI %Re		-	Limits	Units	Analysis Date	
1-Chlorooctane		93		1	01		99		5	70-135	%	11.20.19 16:34	
o-Terphenyl		96		Ģ	98		96		7	70-135	%	11.20.19 16:34	

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8	015P	
Seq Number:	3108192	Matrix:	Solid	Date Prep:	11.20).19	
		MB Sample Id:	7690829-1-BLK				
Parameter		MB Result		U	nits	Analysis Date	Flag
Motor Oil Range Hydrocarl	oons (MRO)	<50.0		m	g/kg	11.20.19 16:14	

Analytical Method: Seq Number:	3108192		od		Matrix:	Soil 643861-00	01 S			Prep Method Date Prep SD Sample 1	p: 11.2	8015P 0.19 861-001 SD	
Parent Sample Id: Parameter	643861-00	Parent Result	Spike Amount	MS Sal MS Result	MS %Rec	MSD Result	MSD %Rec	Limits		RPD Limit		Analysis Date	Flag
Gasoline Range Hydrocarbo		<50.0	999	1110	111	897	90	70-135	21	35	mg/kg	11.20.19 17:36	
Diesel Range Organics ((DRO)	<50.0	999	1290	129	1050	105	70-135	21	35	mg/kg	11.20.19 17:36	
Surrogate					1S Rec	MS Flag	MSD %Re		-	Limits	Units	Analysis Date	
1-Chlorooctane				1	31		131		7	0-135	%	11.20.19 17:36	
o-Terphenyl				1	28		116		7	0-135	%	11.20.19 17:36	

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

Final 1.000



Los Medanos 36-23-30 State#703H

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 802 3108185 7690825-1-BLK	B	LCS Sar	Matrix: nple Id:	Solid 7690825-	1-BKS			Prep Metho Date Pre SD Sample	p: 11.2	5030B 0.19 0825-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPE	RPD Limit	t Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0980	98	0.0920	92	70-130	6	35	mg/kg	11.20.19 15:30	
Toluene	< 0.00200	0.100	0.0890	89	0.0838	84	70-130	6	35	mg/kg	11.20.19 15:30	
Ethylbenzene	< 0.00200	0.100	0.0967	97	0.0910	91	71-129	6	35	mg/kg	11.20.19 15:30	
m,p-Xylenes	< 0.00200	0.200	0.191	96	0.180	90	70-135	6	35	mg/kg	11.20.19 15:30	
o-Xylene	< 0.00200	0.100	0.0945	95	0.0891	89	71-133	6	35	mg/kg	11.20.19 15:30	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSD %Rec		-	Limits	Units	Analysis Date	
1,4-Difluorobenzene	102		1	02		100		7	70-130	%	11.20.19 15:30	
4-Bromofluorobenzene	107		1	00		98		7	70-130	%	11.20.19 15:30	

Analytical Method: Seq Number: Parent Sample Id:	BTEX by EPA 802 3108185 643861-001	1B		Matrix: nple Id:	Soil 643861-00	01 S			Prep Methoo Date Prej SD Sample	p: 11.2	5030B 20.19 861-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0736	74	0.0943	94	70-130	25	35	mg/kg	11.20.19 17:49	
Toluene	< 0.00200	0.100	0.0694	69	0.0879	88	70-130	24	35	mg/kg	11.20.19 17:49	Х
Ethylbenzene	< 0.00200	0.100	0.0757	76	0.0960	96	71-129	24	35	mg/kg	11.20.19 17:49	
m,p-Xylenes	< 0.00200	0.200	0.151	76	0.191	96	70-135	23	35	mg/kg	11.20.19 17:49	
o-Xylene	< 0.00200	0.100	0.0743	74	0.0936	94	71-133	23	35	mg/kg	11.20.19 17:49	
Surrogate				IS Rec	MS Flag	MSD %Rec			Limits	Units	Analysis Date	
1,4-Difluorobenzene			9	99		99		7	0-130	%	11.20.19 17:49	
4-Bromofluorobenzene			1	03		101		7	/0-130	%	11.20.19 17:49	

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

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O.North A Street Address: 3104 E Greene St State of Project: Iand, TX 79705 Email: Smith@ltenv.com, dmoir@ltenv.com State of Project: 2) 236-3849 Email: Smith@ltenv.com, dmoir@ltenv.com Deliverables: EDD ADaPT 2) 236-3849 Email: Smith@ltenv.com, dmoir@ltenv.com ADaPT Other: 2) 236-3849 Email: Smith@ltenv.com, dmoir@ltenv.com Deliverables: EDD ADaPT 2) 236-3849 Turn Around Vork Orthon: No ADaPT Other: 2) 236-3849 Turn Around Vork Orthon: No Mork Orthon: Mork Orthon: 2) 236-30 Wet Ice: Image: Tege No No Yes No Wet Ice: Image: Tege No 1 Thermometer ID Thermometer ID Image: Tege No	NIA	Yes No NIA	Yes No NIA	Cooler Custody Seals: Y
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Address: 3104 E Greene St State of Project:		Midland, TX 79705	Midland, TX 79705	City, State ZIP: Midland
		3300 North A Street	3300 North A Street	Address: 3300 Nc
IT Environmental Inc. Dermian Office Company Name: XTO Energy Inc. Program: UST/PST PRP Brownfields RRC Superfund		LT Environmental, Inc., Permian Office	LT Environmental, Inc., I	Company Name: LT Envi
	Bi		Dan Moir	Project Manager: Dan Mo

XENCO

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900

Chain of Custody

Work Order No: 1243 Suy

Inter-Office Shipment

.

IOS Number : 52737

Date/Time Lab# From Lab# To:		Created by: Delivery Prior Air Bill No.:	Elizabeth M ity: 777039729		Please send report to: Address: E-Mail:	Jessica Kram 1089 N Cana jessica.krame	l Street	com	
Sample Id	Matrix Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	РМ	Analytes	Sign
643864-001	S PH01	11.20.2019 10:07 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		
643864-002	S PH01A	11.20.2019 10:06 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		
643864-003	S PH02	11.20.2019 10:15 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		
643864-004	S PH02A	11.20.2019 10:14 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		
643864-005	S PH03	11.20.2019 10:21 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		
643864-006	S PH03A	11.20.2019 10:20 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		
643864-007	S PH04	11.20.2019 10:27 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		
643864-008	S PH04A	11.20.2019 10:26 S	W9045D	PH By SW9045D	11.21.2019	12.18.2019	JKR		

Inter Office Shipment or Sample Comments:

Relinquished By:

•

Elizabeth McClellan

Date Relinquished: 11.20.2019

Received By:	Almk
	Ashly Kowalski
Date Received:	_11.21.2019

Cooler Temperature: 2.0

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston IOS #: 52737

Contact:

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Temperature Measuring device used : HOU-068

Sent By:	Elizabeth McClellan	Date Sent:	11.20.2019 02.14 PM
Received By:	Ashly Kowalski	Date Received:	11.21.2019 09.30 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation			
	Contacted by :	Date:	

Checklist reviewed by:

Ashly	Kowalski

Date: 11.21.2019



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc. Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 11/20/2019 12:35:00 PM Temperature Measuring device used : T-NM-007 Work Order #: 643864 Sample Receipt Checklist Comments

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

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

Analyst:

PH Device/Lot#:

 Checklist completed by:
 Checklist completed by:

 Elizabeth McClellan

 Checklist reviewed by:
 Jessica Kramer

Date: 11/20/2019

Date: 11/21/2019