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

September 13, 2018

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

RE: Closure Request
Poker Lake Unit 320H
Remediation Permit Number 2RP-2888, 2RP-3563, 2RP-3769, and 2RP-3788
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), is pleased to present the following letter report detailing the soil sampling and excavation activities at the Poker Lake Unit (PLU) 320H well pad (Site) in Unit Letter N, Section 4, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil after four separate events caused the release of crude oil and produced water onto the well pad and surrounding pasture.

On March 11, 2015 a release of crude oil from the flare stack was discovered. At the time of discovery, the cause of the release was unknown. Approximately 20 barrels (bbls) of crude oil were released. The spill impacted approximately 3,660 square feet of pasture and pipeline right-of-way and also misted an area of approximately 15,600 square feet. The former operator reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on March 16, 2015 and was assigned Remediation Permit Number (RP) 2RP-2888 (Attachment 1).

On February 19, 2016 fluid over accumulated in the production vessels causing fluid to release out of the flare stack. Approximately 11 bbls of crude oil and 10 bbls of produced water were released onto the pasture area north and northwest of the flare stack. An environmental response crew was dispatched to the location to scrape up the saturated soil and apply Micro-blaze to the affected vegetation. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on February 23, 2016 and was assigned RP Number 2RP-3563 (Attachment 1).

On July 6, 2016 a gasket failed on the production heater-treater causing approximately 111 bbls of crude oil and 35 bbls of produced water to release onto the well pad. The majority of the fluid remained within the earthen containment berm with the exception of a light spray to the pad. Free-standing liquid was recovered with a vacuum truck; approximately 80 bbls of crude oil and 15 bbls of produced water were recovered. A response crew was dispatched to the location to

conduct an initial scrape of the well pad. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on July 7, 2016 and was assigned RP Number 2RP-3769 (Attachment 1).

On July 14, 2016 the produced water tanks ran over, filling and overflowing the containment. The battery experienced a power failure and the SCADA alarms failed to communicate the upset conditions. Approximately 1,711 bbls of produced water were released within the lined containment and onto the surface of the well pad. Approximately 1,300 bbls of produced water were contained within the lined containment. Free-standing liquid was recovered with a vacuum truck; approximately 1,560 bbls of produced water were recovered from the lined containment and ground surface. An initial response crew was dispatched to the location to scrape up saturated surface soil. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on July 19, 2016 and was assigned RP Number 2RP-3788 (Attachment 1).

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

BACKGROUND

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 and known aquifer properties. The nearest permitted water well is C 02095, located approximately 1.45 miles northeast of the location, with a depth to groundwater of 440 feet bgs and a total depth of 554 feet bgs. The Site is greater than 1,000 feet from a water source and greater than 200 feet from a private domestic water source. The closest surface water to the Site is unnamed dry arroyo, located approximately 1.44 miles northwest of the Site. Based on these criteria, the NMOCD site ranking for remediation action levels, according to the NMOCD's 1993 *Guidelines for Leaks, Spills, and Releases* is 0, and the following remediation action levels applied: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg benzene, toluene, ethylbenzene, and total xylenes (BTEX); and 5,000 mg/kg total petroleum hydrocarbons (TPH). Based on standard practice in this region, LTE applied a site-specific chloride action level of 600 mg/kg or within 10 percent (%) of the background concentrations.

SOIL SAMPLING

On March 6, 2018, an LTE scientist collected ten preliminary soil samples to assess the lateral extent of impacted soil. To eliminate the effects from weathering and natural degradation of

contaminants at the ground surface, the soil samples were collected from each sample location at approximately 0.5 feet bgs. The soil sample locations were selected based on information provided on the initial Form C-141s and field observations. Five soil samples (SS1 through SS5) were collected to assess the lateral extent of soil impact associated with release 2RP-3769 (Figure 2). Five soil samples (SS1 through SS5) were collected to assess the lateral extent of soil impact associated with release 2RP-3788 (Figure 3). The flare stack releases associated with release numbers 2RP-2888 and 2RP-3563 were not addressed during the March 2018 sampling event.

On June 26, 2018, an LTE scientist collected ten preliminary soil samples to assess the lateral and vertical extent of impacted soil associated with the flare stack releases 2RP-2888 and 2RP-3563 (Figure 4). Six preliminary soil samples (SS1 through SS6) were collected from a depth of 0.5 feet bgs. Six additional soil samples (SS1A through SS6A) were collected from the same sample points from a depth of 2 feet bgs (Figure 4). The impacted surface soil in the release area had been previously scraped, as indicated on the initial Form C-141.

The soil samples were screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp in accordance with the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases*, August 13, 1993. The soil samples were placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis, and immediately placed on ice. The samples were shipped to Xenco Laboratories in Midland, Texas, at 4 degrees Celsius (°C) under strict chain-of-custody procedures for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by EPA Method 8015 Modified, and chloride by EPA Method 300.

Laboratory analytical results for the preliminary soil samples associated with release 2RP-3769 indicated three soil samples (SS1, SS3, SS4) exceeded the NMOCD site-specific remediation action level for TPH and one soil sample (SS5) exceeded the NMOCD site-specific remediation action level for TPH and chloride. The laboratory analytical results are depicted on Figure 2 and summarized in Table 1.

Laboratory analytical results for the preliminary soil samples associated with release 2RP-3788 indicated two soil samples (SS1 and SS2) exceeded the NMOCD site-specific remediation action level for TPH and chloride and two soil samples (SS3 and SS4) exceeded the NMOCD site-specific remediation action level for chloride. The laboratory analytical results are depicted on Figure 3 and summarized in Table 2.

Laboratory analytical results for the preliminary soil samples associated with release 2RP-2888 and 2RP-3563 indicated that all soil samples submitted for laboratory analysis (SS1 through SS3, SS5, SS6, SS1A through SS3A, SS5A and SS6A) were compliant with NMOCD site-specific remediation action levels for BTEX, TPH, and chloride. Soil samples SS4 and SS4A, collected at 0.5 feet bgs and 2 feet bgs, respectively, were not submitted for laboratory analysis based on

elevated field screening results. Excavation was required in the location of these samples. The laboratory analytical results are depicted on Figure 4 and summarized in Table 3. The laboratory analytical reports are included in Attachment 2.

Based on field screening, visual observations, and soil sample laboratory analytical results, excavation of impacted soil was required in the release areas associated with all four releases.

EXCAVATION ACTIVITIES

During June 2018, LTE personnel returned to the Site to oversee excavation of impacted soil as indicated by visual staining, field screening, and laboratory analytical results exceeding the NMOCD remediation action levels for TPH and chloride. Excavation activities commenced on June 21, 2018, and concluded on July 2, 2018. In an effort to delineate hydrocarbon and chloride impacts to soil and direct excavation activities, LTE screened soil samples using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips.

Excavation activities associated with release 2RP-3769 were completed in the areas around preliminary soil samples SS1, SS3, SS4, and SS5 and in the areas where LTE observed surficial soil staining within the process equipment berm and on the west side of the process equipment berm. The excavation was completed to a depth ranging from 3 feet bgs to 6 feet bgs. The final excavation measured approximately 3,100 square feet. Approximately 750 cubic yards of soil were removed from the excavation. Upon completion of excavation activities, LTE collected confirmation soil samples FS1 through FS4 from the floor of the excavation and soil samples SW1 through SW17 from the sidewalls of the excavation. The final excavation extent and soil sample locations and are illustrated on Figure 2.

Excavation activities associated with release 2RP-3788 were completed in the areas around preliminary samples SS1 through SS4 and in the areas where LTE observed surficial soil staining west of the storage tank containment berm. The excavation was completed to a depth of 2 feet bgs. The final excavation measured approximately 15,750 square feet. Approximately 1,021 cubic yards of soil were removed from the excavation. Upon completion of excavation activities LTE collected confirmation soil samples SS1A through SS4A and SS6 through SS15 from the final lateral and vertical extents of the excavation. The final excavation extent and soil sample locations and are illustrated on Figure 3.

Excavation activities associated with the flare stack releases 2RP-2888 and 2RP-3563 were completed northwest of the flare stack as indicated by field screening results in the location of soil samples SS4 and SS4A. The excavation was completed to a depth of 3 feet bgs. The final excavation measured approximately 16 square feet. Approximately 2 cubic yards of soil were removed from the excavation. Upon completion of excavation activities, LTE collected confirmation soil sample FS1 from the floor of the excavation and soil samples SW1 through SW4 from the sidewalls of the excavation. While onsite for excavation activities, LTE collected three

additional confirmation surface soil samples (SS16 through SS18) in order to confirm the extent of the release. The preliminary soil samples (SS1 through SS3, SS5, and SS6 from 0.5 feet bgs, and SS1A through SS3A, SS5A, and SS6A from 2 feet bgs) collected within the release footprint successfully defined the lateral and vertical extent of the release and confirmed that no further excavation was required. The final excavation extent and soil sample locations and are illustrated on Figure 4.

The confirmation soil samples from all excavations were collected and handled as previously described and submitted to Xenco Laboratories in Midland, Texas. The impacted soil removed from all excavations was transported and properly disposed of at the Lea Land Landfill and the R360 Landfill located in Eunice, New Mexico, and Hobbs, New Mexico, respectively.

ANALYTICAL RESULTS

Laboratory analytical results associated with release 2RP-3769 indicated preliminary soil samples SS1, SS3, SS4, and SS5 exceeded NMOCD remediation action levels. Impacted soil was excavated from the release area and subsequent excavation floor soil samples FS1 through FS4 and excavation sidewall soil samples SW1 through SW17 were collected from the final excavation extent. Laboratory analytical results indicated that soil samples FS1 through FS4, SW1 through SW6, SW8, SW9, and SW13 through SW17 were compliant with NMOCD remediation action levels. Laboratory analytical results indicated that soil samples SW7, SW10, SW11, and SW12 exceeded the NMOCD remediation action level for chloride. XTO's safety policy restricts soil disturbing activities to a 2-foot radius of any onsite storage tanks or process equipment. This safety policy is established to protect workers and to reduce the likelihood of compromising the foundation of the process equipment and storage tanks. This policy had to be enforced along the eastern sidewall of the excavation where impacted soil was observed within two feet of the process equipment. The excavation was advanced to two feet from the process equipment by mechanical and hand digging methods to remove as much impacted soil as possible. Laboratory analytical results for soil samples SS1, SS5, SW7, SW10, SW11, and SW12 indicate that soil exceeding NMOCD remediation action levels was left in-place. Soil samples SW13 and SW08 collected along the eastern sidewall of the excavation north and south of the impacted samples, delineate the extent of impacted soil that was left in-place. LTE estimates that approximately 30 cubic yards of impacted soil remain in-place between soil samples SW13 and SW08 under the process equipment within the bermed area.

Laboratory analytical results associated with release 2RP-3788 indicated preliminary soil samples SS1 through SS4 exceeded NMOCD remediation action levels. Impacted soil was excavated from the release area and subsequent soil samples SS1A through SS4A and SS6 through SS15 were collected from the final excavation extent. Laboratory analytical results indicated that all final confirmation soil samples were compliant with NMOCD remediation action levels for BTEX, TPH, and chloride.

Laboratory analytical results associated with flare stack releases 2RP-2888 and 2RP-3562 indicated soil samples SS1 through SS3, SS5, SS6, SS1A through SS3A, SS5A, SS6A, and SS16 through SS18 were compliant with NMOCD remediation action levels. Impacted soil was excavated from the release area around soil samples SS4/SS4A based on elevated field screening results. Subsequent soil samples FS1, and SW1 through SW4 were collected from the final excavation extent. Laboratory analytical results indicated that all final confirmation soil samples were compliant with NMOCD remediation action levels for BTEX, TPH, and chloride. Laboratory analytical results are presented on Figures 2 through 4 and summarized in Tables 1 through 3, and the complete laboratory analytical reports are included as Attachment 2.

CONCLUSIONS

Laboratory analytical results for the final confirmation surface soil samples and final excavation soil samples indicate that BTEX, TPH, and chloride concentrations are compliant with NMOCD site-specific remediation action levels, with the exception of sidewall samples SW7, and SW10 through SW12 associated with release 2RP-3769. An estimated 30 cubic yards of impacted soil was left in-place within 3 feet of the process equipment per XTO's safety policy as described above. The remaining impacted soil will be addressed when the site is closed or reconfigured to allow for remediation to be completed.

Initial response efforts, natural degradation, and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for release numbers 2RP-3769, 2RP-3788, 2RP-2888, and 2RP-3563. Upon approval of this request, XTO will backfill and recontour the excavations. An updated NMOCD Form C-141 for each release is included in Attachment 1.

If you have any questions or comments, please do not hesitate to contact Adrian Baker at (432) 887-1255 or abaker@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Adrian Baker
Project Geologist

Ashley L. Ager, P.G.
Senior Geologist

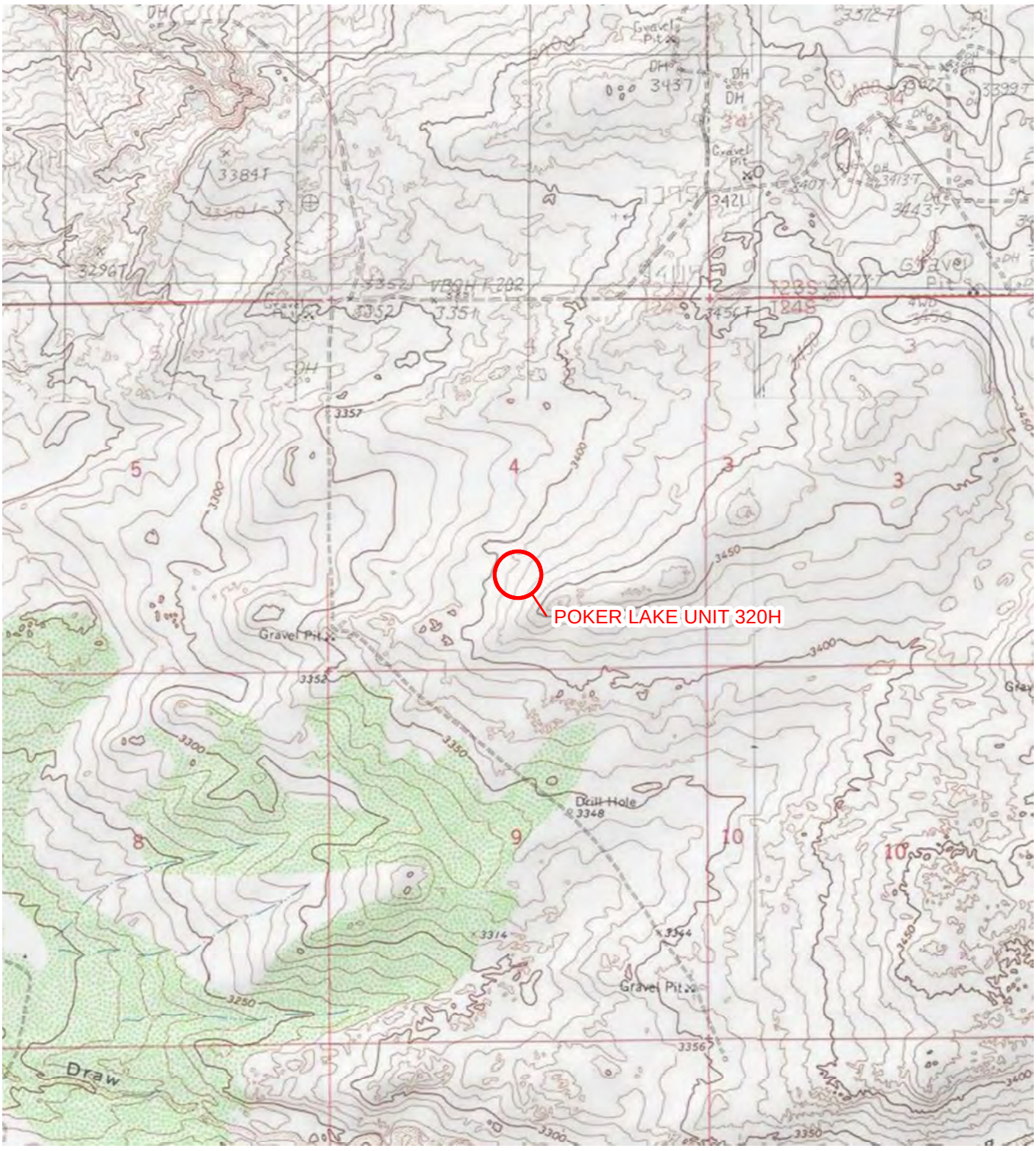
cc: Kyle Littrell, XTO
Maria Pruett, NMOCD
Jim Amos, BLM
Shelly Tucker, BLM

Attachments:

Figure 1	Site Location Map
Figure 2	Soil Sample Locations (2RP-3769)
Figure 3	Soil Sample Locations (2RP-3788)
Figure 4	Soil Sample Locations (2RP-2888 and 2RP-3563)
Table 1	Soil Analytical Results (2RP-3769)
Table 2	Soil Analytical Results (2RP-3788)
Table 3	Soil Analytical Results (2RP-2888 and 2RP-3563)

Attachment 1	Initial/Final NMOCD Form C-141 (2RP-2888, 2RP-3563, 2RP-3769, and 2RP-3788)
Attachment 2	Laboratory Analytical Reports

FIGURES



LEGEND

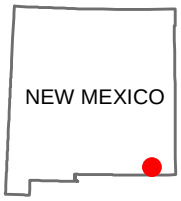
SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N



NOTE: REMEDIATION PERMIT NUMBERS
2RP-2888, 2RP-3563, 2RP-3769, & 2RP-3788

FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT 320H
UNIT N SEC 4 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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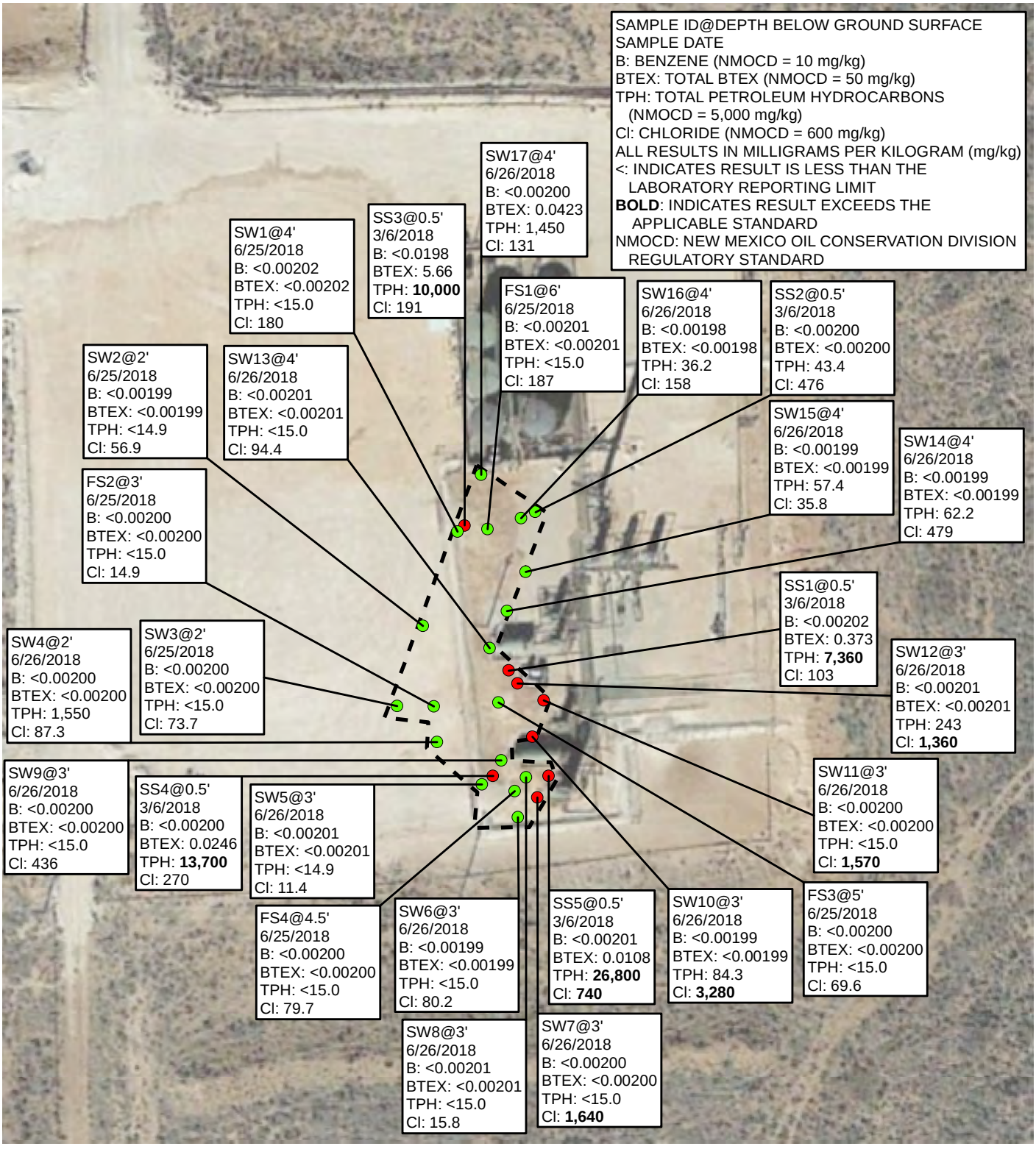

LEGEND

- PRELIMINARY SOIL SAMPLE
- FINAL CONFIRMATION SOIL SAMPLE
- EXCAVATION EXTENT

IMAGE COURTESY OF GOOGLE EARTH 2017

0 60 120
Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-3769

FIGURE 2
SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 320H
UNIT N SEC 4 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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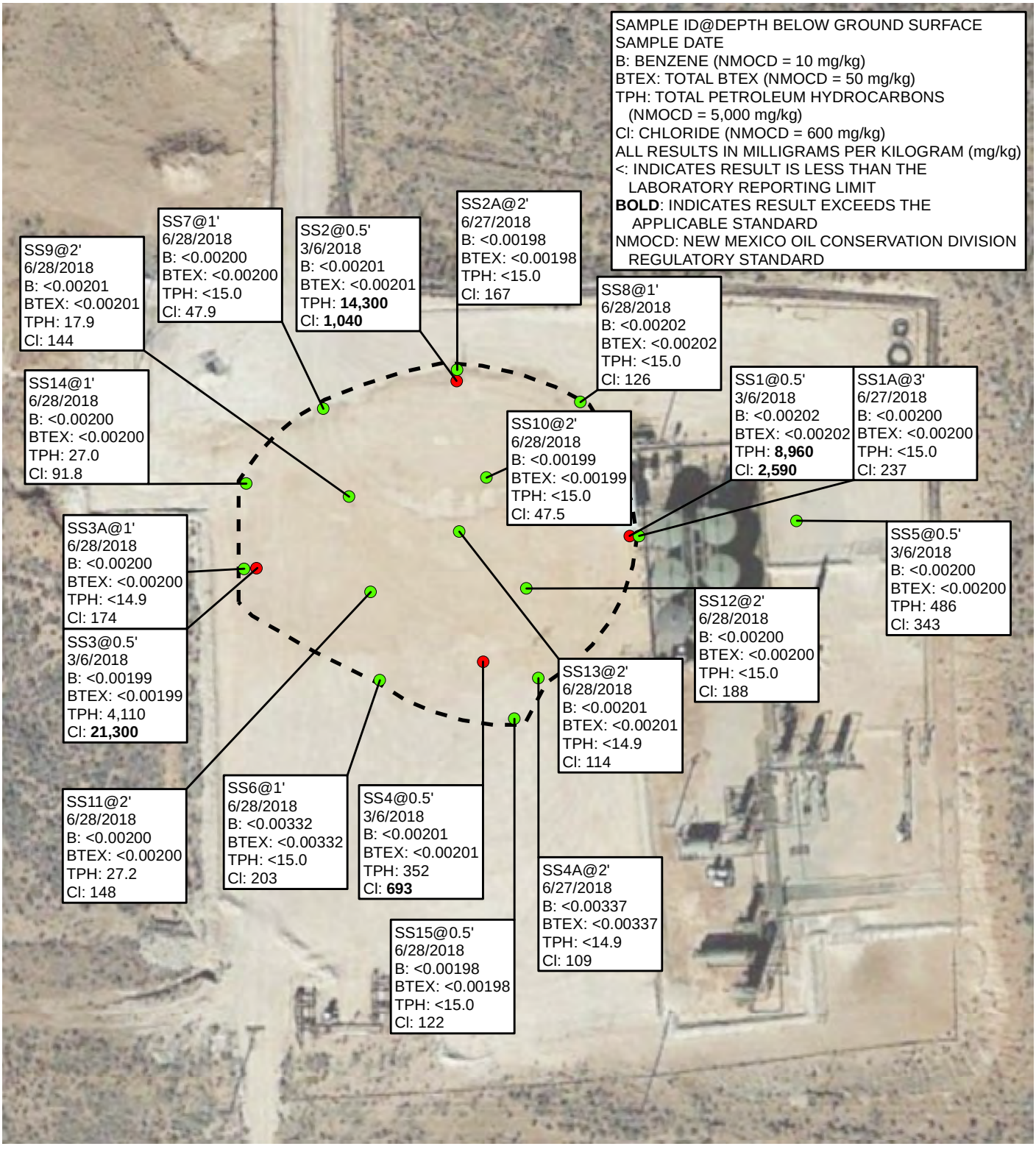

LEGEND

- PRELIMINARY SOIL SAMPLE
- FINAL CONFIRMATION SOIL SAMPLE
- EXCAVATION EXTENT

IMAGE COURTESY OF GOOGLE EARTH 2017

0 60 120
Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-3788

FIGURE 3
SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 320H
UNIT N SEC 4 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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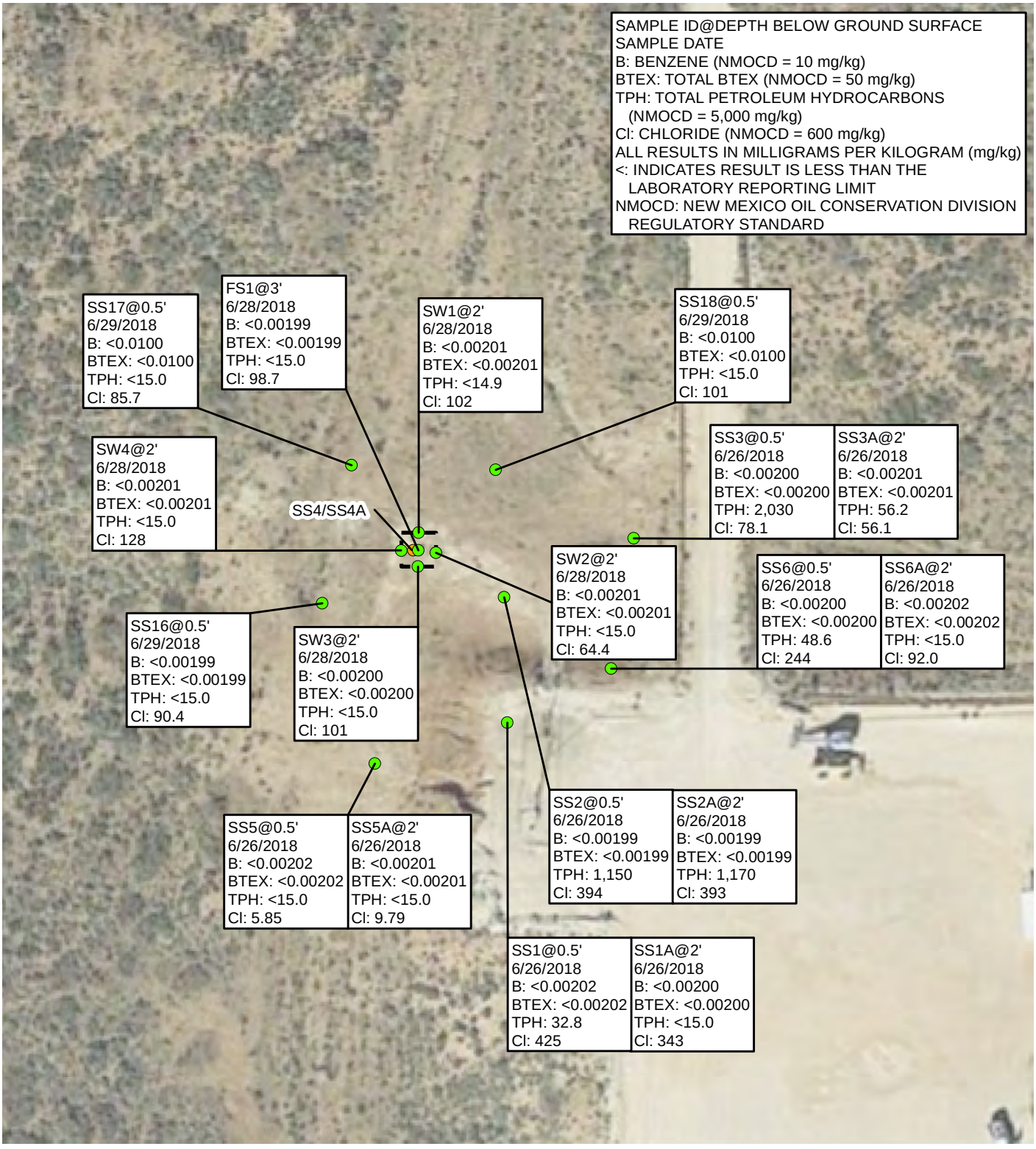

IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- FINAL CONFIRMATION SOIL SAMPLE
- FIELD SCREENED SOIL SAMPLE
- EXCAVATION EXTENT

0 60 120
Feet

N

NOTE: REMEDIATION PERMIT NUMBERS 2RP-2888 & 2RP-3563

FIGURE 4
SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 320H
UNIT N SEC 4 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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TABLES

TABLE 1
SOIL ANALYTICAL RESULTS
POKER LAKE UNIT 320H
REMEDIATION PERMIT NUMBER 2RP-3769
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 Gasoline Range Organics (mg/kg)	C10-C28 Diesel Range Organics (mg/kg)	C28-C40 Oil Range Organics (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS1	0.5	3/6/2018	<0.00202	0.237	0.0291	0.107	0.373	642	5,880	841	**7,360**	103
SS2	0.5	3/6/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	43.4	<15.0	43.4	476
SS3	0.5	3/6/2018	<0.0198	0.436	1.06	4.16	5.66	2,440	6,650	951	**10,000**	191
SS4	0.5	3/6/2018	<0.00200	<0.00200	<0.00200	0.0246	0.0246	<150	10,900	2,780	**13,700**	270
SS5	0.5	3/6/2018	<0.00201	<0.00201	0.00395	0.00681	0.0108	<150	21,200	5,630	**26,800**	**740**
FS1	6	6/25/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	187
FS2	3	6/25/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	14.9
FS3	5	6/25/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	69.6
FS4	4.5	6/25/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	79.7
SW1	4	6/25/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	180
SW2	2	6/25/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	56.9
SW3	2	6/25/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	73.7
SW4	2	6/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	1,520	34.7	1,550	87.3
SW5	3	6/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	11.4
SW6	3	6/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	80.2
SW7	3	6/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	**1,640**
SW8	3	6/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	15.8
SW9	3	6/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	436
SW10	3	6/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	84.3	<15.0	84.3	**3,280**
SW11	3	6/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	**1,570**
SW12	3	6/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	226	16.8	243	**1,360**
SW13	4	6/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	94.4
SW14	4	6/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	62.2	<15.0	62.2	479
SW15	4	6/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	57.4	<14.9	57.4	35.8
SW16	4	6/26/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	36.2	<15.0	36.2	158
SW17	4	6/26/2018	<0.00200	<0.00200	0.00835	0.0339	0.0423	19.0	1,390	45.9	1,450	131
NMOCD Remediation Action Levels			10	NE	NE	NE	50	NE	NE	NE	5,000	600

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold indicates result exceeds the applicable regulatory standard.

TABLE 2
SOIL ANALYTICAL RESULTS
POKER LAKE UNIT 320H
REMEDIATION PERMIT NUMBER 2RP-3788
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 Gasoline Range Organics (mg/kg)	C10-C28 Diesel Range Organics (mg/kg)	C28-C40 Oil Range Organics (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS1	0.5	3/6/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<74.9	7,250	1,710	**8,960**	**2,590**
SS2	0.5	3/6/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<74.9	11,600	2,710	**14,300**	**1,040**
SS3	0.5	3/6/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<74.9	3,570	544	4,110	**21,300**
SS4	0.5	3/6/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	255	96.6	352	**693**
SS5	0.5	3/6/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	381	105	486	343
SS1A	3	6/27/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	237
SS2A	2	6/27/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	167
SS3A	1	6/28/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	174
SS4A	2	6/27/2018	<0.00337	<0.00337	<0.00337	<0.00337	<0.00337	<14.9	<14.9	<14.9	<14.9	109
SS6	1	6/28/2018	<0.00332	<0.00332	<0.00332	<0.00332	<0.00332	<15.0	<15.0	<15.0	<15.0	203
SS7	1	6/28/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	47.9
SS8	1	6/28/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	126
SS9	2	6/28/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	17.9	<15.0	17.9	144
SS10	2	6/28/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	47.5
SS11	2	6/28/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	27.2	<15.0	27.2	148
SS12	2	6/28/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	188
SS13	2	6/28/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	114
SS14	1	6/28/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	27.0	<15.0	27.0	91.8
SS15	0.5	6/28/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	122
NMOCD Remediation Action Levels			10	NE	NE	NE	50	NE	NE	NE	5,000	600

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold indicates result exceeds the applicable regulatory standard.

TABLE 3
SOIL ANALYTICAL RESULTS
POKER LAKE UNIT 320H
REMEDIATION PERMIT NUMBERS 2RP-2888 and 2RP-3563
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 Gasoline Range Organics (mg/kg)	C10-C28 Diesel Range Organics (mg/kg)	C28-C40 Oil Range Organics (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS1	0.5	6/26/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	32.8	<15.0	32.8	425
SS2	0.5	6/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	1,100	45.5	1,150	394
SS3	0.5	6/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	2,000	30.1	2,030	78.1
SS5	0.5	6/26/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	5.85
SS6	0.5	6/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	48.6	<15.0	48.6	244
SS1A	2	6/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	343
SS2A	2	6/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	1,130	37.8	1,170	393
SS3A	2	6/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	56.2	<14.9	56.2	56.1
SS5A	2	6/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	9.79
SS6A	2	6/26/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	92.0
FS1	3	6/28/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	98.7
SW1	2	6/28/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	102
SW2	2	6/28/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	64.4
SW3	2	6/28/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	101
SW4	2	6/28/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	128
SS16	0.5	6/29/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	90.4
SS17	0.5	6/29/2018	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<15.0	<15.0	<15.0	<15.0	85.7
SS18	0.5	6/29/2018	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<15.0	<15.0	<15.0	<15.0	101
NMOCD Remediation Action Levels			10	NE	NE	NE	50	NE	NE	NE	5,000	600

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold indicates result exceeds the applicable regulatory standard.

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-2888, 2RP-3563, 2RP-3769, and 2RP-3788)

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

State of New Mexico
Energy Minerals and Natural Resources

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

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 16 2015
RECEIVED

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1507554274

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU-320 Tank Battery	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-39810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	4.	24S	30E					Eddy

Latitude N 32.243554 **Longitude** W 103.886910

NATURE OF RELEASE

Type of Release: Crude oil	Volume of Release: 20 bbls.	Volume Recovered: None
Source of Release: Flare Stack	Date and Hour of Occurrence: Date and time unknown	Date and Hour of Discovery: 3/11/15 at 2:30 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Tony Savoie	Date and Hour: 3/12/15 at 8:30 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Crude oil was released out the flare stack. Cause not known at the time of discovery.

Describe Area Affected and Cleanup Action Taken.*
The release flow path and ponded areas measured approximately 3,660 sq.ft. of pasture and pipeline right of ways. It also misted an area of approximately 15,600 sq.ft. There are two buried pipelines under the flow path and ponded areas. The stained area was left as is pending the final remediation.

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

Signature: Tony Savoie

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 3/17/15 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 3/16/15 Expiration Date:

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 4/16/15

2RP-2888

* Attach Additional Sheets If Necessary

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 23 2016
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District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1605654091

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Bradley Blevins
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU 320H	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 3001539810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/*South Line*	Feet from the	East/*West Line*	County
N	4	24S	30E	2590		1670		Eddy

Latitude: 32.24361 **Longitude:** 103.88657

NATURE OF RELEASE

Type of Release: Crude oil and Produced water	Volume of Release: 11 barrels oil and 10 barrels PW	Volume Recovered: None
Source of Release: Flare Stack	Date and Hour of Occurrence: 2-19-16 @ 11:30am	Date and Hour of Discovery 2-19-16 @ 11:55am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson and Jim Amos	
By Whom? Bradley Blevins	Date and Hour: 2-19-16 @ 12:32pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Fluid over ranged production vessels causing fluid to be released out the flare stack. An environmental response crew was dispatched to the location and began to scrape up the saturated soils; micro blaze was also applied to the vegetation.

Describe Area Affected and Cleanup Action Taken.*

The fluid released affected the pasture to the north/northwest of the flare area. An environmental response crew was dispatched to the location and began to scrape up the saturated soils near the flare; micro blaze was also applied to the vegetation within the spray area. The area will be sampled and discussed with the NMOCD and BLM.

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

Signature: Bradley Blevins	OIL CONSERVATION DIVISION
Printed Name: Bradley Blevins	Signed By Mike Bratcher Approved by Environmental Specialist:
Title: Assistant Remediation Foreman	Approval Date: 2/25/16 Expiration Date: N/A
E-mail Address: bblevins@basspet.com	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 3/26/16 Attached ☐
Date: 2-23-16 Phone: 432-214-3704	

* Attach Additional Sheets If Necessary

2RP-3563

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 07 2016
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District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1619044684

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Bradley Blevins
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU 320 Battery	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-39810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/*South Line*	Feet from the	East/*West Line*	County
N	4	24S	30E	2590		1670		Eddy

Latitude: 32.242954 **Longitude**: 103.885796

NATURE OF RELEASE

Type of Release: Crude Oil/ Produced Water	Volume of Release: 111 barrels oil and 35 barrels Produced Water	Volume Recovered: 80 Barrels Oil and 15 Barrels Produced Water
Source of Release: Heater Treater Gasket	Date and Hour of Occurrence: 7-6-16 @ 8:00am	Date and Hour of Discovery 7-6-16 @ 8:45am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher OCD, Heather Patterson OCD, Shelly Tucker BLM	
By Whom? Bradley Blevins	Date and Hour: 7-6-16 @ 11:13am email	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
BOPCO EHS was notified of a release that occurred when the gasket failed on the production heater treater. Majority of the fluid was contained within an earth berm with the exception of a light spray to the location. A vacuum truck was called to the location to recover the standing fluid. A response crew was sent to the location to conduct an initial scrape of the well pad.

Describe Area Affected and Cleanup Action Taken.*
Majority of the affected area was within the earth berm that surrounds the production equipment; the standing fluid was recovered by a vacuum truck. A Light spray to the location was observed; an initial response crew conducted a scrape of the well pad.

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

Signature: Bradley Blevins

Printed Name: Bradley Blevins

Title: Assistant Remediation Foreman

E-mail Address: bblevins@basspet.com

Date: 7-7-16 Phone: 432-214-3704

OIL CONSERVATION DIVISION

Signed By Mike Bratcher

Approved by Environmental Specialist:

Approval Date: 7/8/16 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO
LATER THAN: 8/8/16

2RP-3769

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 19 2016
RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1620444442 260737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Bradley Blevins
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU 320H	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-39810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/*South Line*	Feet from the	East/*West Line*	County
N	4	24S	30E	2590		1670		Eddy

Latitude: 32.243083 **Longitude:** 103.886519

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 1,711 barrels (1300 was in lined containment)	Volume Recovered 1,560 barrels
Source of Release: PW tanks overflowed	Date and Hour of Occurrence 7-14-16 @ Unknown time	Date and Hour of Discovery 7-14-16 @ 8:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson, Shelly Tucker BLM	
By Whom? Brad Blevins via email	Date and Hour: 7-14-16 @11:21am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
BOPCO EHS was notified on 7-14-16 of a release that occurred at the PLU 320H Battery. The produced water tanks ran over filling and overflowing the containment. The battery experienced a power failure and the SCADA alarms failed to communicate the upset conditions. An initial response crew was dispatched to the location to scrape up the saturated surface soils.

Describe Area Affected and Cleanup Action Taken.*
A vacuum truck was called to the location and recovered a total of 1560 barrels of produced water from the lined containment and ground surface. An initial response crew was dispatched to location to scrape the saturated surface soils.

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

Signature: Bradley Blevins	OIL CONSERVATION DIVISION Approved by Environmental Specialist:
Printed Name: Bradley Blevins	
Title: Assistant Remediation Foreman	Approval Date: 7/21/16 Expiration Date: N/A
E-mail Address: bblevins@basspet.com	Conditions of Approval: Attached ☐
Date: 7-19-16 Phone: 432-214-3704	**Remediation per O.C.D. Rules & Guidelines** ~~SUBMIT REMEDIATION PROPOSAL NO~~ **LATER THAN:** 8/25/16

* Attach Additional Sheets If Necessary

fRP-3788

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company XTO Energy	Contact Kyle Littrell
Address 3104 E Greene Street Carlsbad, N.M. 88220	Telephone No. 432-221-7331
Facility Name PLU 320 Tank Battery (2RP-2888)	Facility Type Exploration and Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-39810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	4	24S	30E					Eddy

Latitude N 32.243554 **Longitude** -103.886910 NAD83

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: 20 bbls	Volume Recovered: None
Source of Release: Flare Stack	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 3/11/15 at 2:30pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Tony Savoie	Date and Hour : 3/12/15 at 8:30 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*
Crude oil was released out of the flare stack. Cause not known at the time of discovery.

Describe Area Affected and Cleanup Action Taken.*
The release flow path and ponded areas measured approximately 3,660 sq. ft. of pasture and pipeline right-of-way's. It also misted an area of approximately 15,600 sq. ft. There are two buried pipelines under the flow path and ponded areas. The stained area was left as is pending final remediation.

The impacted soil was excavated. Confirmation soil samples were collected from the release area and excavation between June 26, 2018 and June 29, 2018. Laboratory analytical results for the confirmation soil samples indicate BTEX, TPH, and chloride concentrations are compliant with NMOCD remediation action levels. A Closure Request Report is attached describing all field activities. XTO requests no further action for this release.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Kyle Littrell	Approved by Environmental Specialist:
Title: SH&E Coordinator	Approval Date: / Expiration Date:
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval: / Attached ☐
Date: 9/17/2018 Phone: 432-221-7331	

* Attach Additional Sheets If Necessary

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company XTO Energy	Contact Kyle Littrell
Address 3104 E Greene Street Carlsbad, N.M. 88220	Telephone No. 432-221-7331
Facility Name PLU 320H (2RP-3563)	Facility Type Exploration and Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-39810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	4	24S	30E	2590	South	1670	West	Eddy

Latitude N 32.24361 **Longitude** -103.88657 NAD83

NATURE OF RELEASE

Type of Release: Crude Oil and Produced Water	Volume of Release: 11 bbls oil and 10 bbls PW	Volume Recovered: None
Source of Release: Flare Stack	Date and Hour of Occurrence: 2-19-16 @ 11:30 am	Date and Hour of Discovery: 2-19-16 @ 11:55 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson and Jim Amos	
By Whom? Bradley Blevins	Date and Hour: 2-19-16 @ 12:32 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*
Fluid over ranged production vessels causing fluid to be released out of the flare stack. An environmental response crew was dispatched to the location and began to scrape up the saturated soils; micro blaze was also applied to the vegetation.

Describe Area Affected and Cleanup Action Taken.*
The fluid released affected the pasture to the north/northwest of the flare area. An environmental response crew was dispatched to the location and began to scrape up the saturated soils near the flare; micro blaze was applied to the vegetation within the spray area.

The impacted soil was excavated. Confirmation soil samples were collected from the release area and excavation between June 26, 2018 and June 29, 2018. Laboratory analytical results for the confirmation soil samples indicate BTEX, TPH, and chloride concentrations are compliant with NMOCD remediation action levels. A Closure Request Report is attached describing all field activities. XTO requests no further action for this release.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Kyle Littrell	Approved by Environmental Specialist:	
Title: SH&E Coordinator	Approval Date:	Expiration Date:
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval:	Attached ☐
Date: 9/17/2018 Phone: 432-221-7331		

* Attach Additional Sheets If Necessary

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company XTO Energy	Contact Kyle Littrell
Address 3104 E Greene Street Carlsbad, N.M. 88220	Telephone No. 432-221-7331
Facility Name PLU 320H (2RP-3769)	Facility Type: Exploration and Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-39810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	4	24S	30E	2590	South	1670	West	Eddy

Latitude 32.242954 **Longitude** -103.885796 NAD83

NATURE OF RELEASE

Type of Release: Crude Oil and Produced Water	Volume of Release: 111 bbls oil and 35 bbls produced water	Volume Recovered: 80 bbls oil and 15 bbls of produced water
Source of Release: Heater-Treater Gasket	Date and Hour of Occurrence: 7-6-16 @ 11:30 am	Date and Hour of Discovery: 7-6-16 @ 8:45 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson and Jim Amos	
By Whom? Bradley Blevins	Date and Hour: 7-6-16 @ 11:13 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*
BOPCO EHS was notified of a release that occurred when the gasket failed on the production heater treater. The majority of the fluid was contained within an earth berm with the exception of a light spray to the location. A vacuum truck was called to the location to recover the standing fluid. A response crew was sent to the location to conduct an initial scrape of the well pad.

Describe Area Affected and Cleanup Action Taken.*
The majority of the affected area was within the earth berm that surrounds the production equipment; the standing fluid was recovered by a vacuum truck. A light spray to the location was observed; an initial response crew conducted a scrape of the well pad.

The impacted soil was excavated. Confirmation soil samples were collected from the release area and excavation between March 6, 2018 and June 26, 2018. Laboratory analytical results for the confirmation soil samples indicate BTEX, TPH, and chloride concentrations are compliant with NMOCD remediation action levels, except in eastern excavation sidewall where impacted soil within close proximity to the active process equipment was left in-place per XTO's safety policy. The remaining impacted will be excavated when the site is closed or reconfigured to allow for remediation to be completed. A Closure Request Report is attached describing all field activities. XTO requests no further action for this release.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Kyle Littrell	Approved by Environmental Specialist:
Title: SH&E Coordinator	Approval Date: / Expiration Date:
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval: / Attached ☐
Date: 9/17/2018 Phone: 432-221-7331	

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company XTO Energy	Contact Kyle Littrell
Address 3104 E Greene Street Carlsbad, N.M. 88220	Telephone No. 432-221-7331
Facility Name PLU 320H (2RP-3788)	Facility Type: Exploration and Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-39810

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	4	24S	30E	2590	South	1670	West	Eddy

Latitude N 32.243083 **Longitude** -103.886519 NAD83

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 1,711 bbls (1300 was in lined containment)	Volume Recovered: 1,560 bbls
Source of Release: PW tank over flowed	Date and Hour of Occurrence: 7-14-16 @ unknown time	Date and Hour of Discovery: 7-14-16 @ 8:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson and Shelly Tucker	
By Whom? Bradley Blevins via email	Date and Hour: 7-14-16 @ 11:21 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*
BOPCO EHS was notified on 7-14-16 of a release that occurred at the PLU 320H Battery. The produced water tank ran over filling and overflowing the containment. The battery experienced a power failure and the SCADA alarms failed to communicate the upset conditions. An initial response crew was dispatched to location to scrape the saturated surface soils.

Describe Area Affected and Cleanup Action Taken.*
A vacuum truck was called to the location and recovered a total of 1560 bbls of produced water from the lined containment and ground surface. An initial response team was dispatched to location to scrape saturated surface soils.

The impacted soil was excavated. Confirmation soil samples were collected from the release area and excavation between March 6, 2018 and June 28, 2018. Laboratory analytical results for the confirmation soil samples indicate BTEX, TPH, and chloride concentrations are compliant with NMOCD remediation action levels. A Closure Request Report is attached describing all field activities. XTO requests no further action for this release.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Kyle Littrell	Approved by Environmental Specialist:
Title: SH&E Coordinator	Approval Date: / Expiration Date:
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval: / Attached ☐
Date: 9/17/2018 Phone: 432-221-7331	

* Attach Additional Sheets If Necessary

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 590702

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU 320H/012918082

06-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

06-JUL-18

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

Reference: XENCO Report No(s): **590702**
PLU 320H/012918082
Project Address: NM

Adrian Baker:

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) 590702. 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. 590702 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 590702

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	06-26-18 10:00	6 ft	590702-001
SS2	S	06-26-18 10:05	6 ft	590702-002
SS3	S	06-26-18 10:10	6 ft	590702-003
SS5	S	06-26-18 10:20	6 ft	590702-005
SS6	S	06-26-18 10:25	6 ft	590702-006
SS1A	S	06-26-18 11:00	2 ft	590702-007
SS2A	S	06-26-18 11:05	2 ft	590702-008
SS3A	S	06-26-18 11:10	2 ft	590702-009
SS5A	S	06-26-18 11:20	2 ft	590702-011
SS6A	S	06-26-18 11:25	2 ft	590702-012
SS4	S	06-26-18 10:15	6 ft	Not Analyzed
SS4A	S	06-26-18 11:15	2 ft	Not Analyzed

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 320H/012918082

Project ID:
Work Order Number(s): *590702*

Report Date: *06-JUL-18*
Date Received: *06/28/2018*

Sample receipt non conformances and comments:

Per sampler (Daniel Thomas) HOLD sample 004 and 010, written on COC in error JKR 06/28/18

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055565 BTEX by EPA 8021B

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

Certificate of Analysis Summary 590702

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H/012918082

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Thu Jun-28-18 10:10 am
Report Date: 06-JUL-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	590702-001		590702-002		590702-003		590702-005		590702-006		590702-007	
	Field Id:	SS1		SS2		SS3		SS5		SS6		SS1A	
	Depth:	6- ft		6- ft		6- ft		6- ft		6- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-26-18 10:00		Jun-26-18 10:05		Jun-26-18 10:10		Jun-26-18 10:20		Jun-26-18 10:25		Jun-26-18 11:00	
BTEX by EPA 8021B	***Extracted:***	Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00	
	Analyzed:	Jul-06-18 03:19		Jul-06-18 03:35		Jul-06-18 03:51		Jul-06-18 04:09		Jul-06-18 04:27		Jul-06-18 04:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00404	0.00404	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403	<0.00401	0.00401	<0.00399	0.00399
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Jul-02-18 14:30		Jul-02-18 14:30		Jul-02-18 14:30		Jul-02-18 14:30		Jul-03-18 09:30		Jul-03-18 09:30	
	Analyzed:	Jul-02-18 22:55		Jul-02-18 23:00		Jul-02-18 23:06		Jul-02-18 23:11		Jul-03-18 10:49		Jul-03-18 11:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		425	5.00	394	4.99	78.1	4.98	5.85	4.95	244	5.00	343	4.99
TPH by SW8015 Mod	***Extracted:***	Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00	
	Analyzed:	Jul-05-18 12:08		Jul-06-18 07:56		Jul-06-18 08:15		Jul-05-18 13:46		Jul-05-18 14:05		Jul-05-18 14:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		32.8	15.0	1100	15.0	2000	15.0	<15.0	15.0	48.6	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	45.5	15.0	30.1	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		32.8	15.0	1150	15.0	2030	15.0	<15.0	15.0	48.6	15.0	<15.0	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 590702

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H/012918082

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Thu Jun-28-18 10:10 am
Report Date: 06-JUL-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	590702-008		590702-009		590702-011		590702-012					
	Field Id:	SS2A		SS3A		SS5A		SS6A					
	Depth:	2- ft		2- ft		2- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jun-26-18 11:05		Jun-26-18 11:10		Jun-26-18 11:20		Jun-26-18 11:25					
BTEX by EPA 8021B	***Extracted:***	Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00					
	Analyzed:	Jul-06-18 05:01		Jul-06-18 05:19		Jul-06-18 05:37		Jul-06-18 05:55					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202				
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202				
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202				
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00402	0.00402	<0.00404	0.00404				
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202				
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202				
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202				
Inorganic Anions by EPA 300	***Extracted:***	Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30					
	Analyzed:	Jul-03-18 11:16		Jul-03-18 11:22		Jul-03-18 11:27		Jul-03-18 11:43					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		393	4.96	56.1	4.99	9.79	4.95	92.0	5.00				
TPH by SW8015 Mod	***Extracted:***	Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00					
	Analyzed:	Jul-05-18 14:44		Jul-05-18 15:04		Jul-05-18 15:24		Jul-05-18 15:43					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		1130	15.0	56.2	14.9	<15.0	15.0	<15.0	15.0				
Oil Range Hydrocarbons (ORO)		37.8	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0				
Total TPH		1170	15.0	56.2	14.9	<15.0	15.0	<15.0	15.0				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 590702

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-001	Date Collected:	06.26.18 10.00	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.02.18 14.30	Basis:	Wet Weight
Seq Number:	3055272				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**425**	5.00	mg/kg	07.02.18 22.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 12.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	**32.8**	15.0	mg/kg	07.05.18 12.08		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 12.08	U	1
Total TPH	PHC635	**32.8**	15.0	mg/kg	07.05.18 12.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	07.05.18 12.08	
o-Terphenyl	84-15-1	108	%	70-135	07.05.18 12.08	

Certificate of Analytical Results 590702

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-001	Date Collected:	06.26.18 10.00	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.06.18 03.19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.06.18 03.19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.06.18 03.19	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.06.18 03.19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.06.18 03.19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.06.18 03.19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.06.18 03.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.06.18 03.19	
4-Bromofluorobenzene	460-00-4	129	%	70-130	07.06.18 03.19	

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LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-002	Date Collected:	06.26.18 10.05	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.02.18 14.30	Basis:	Wet Weight
Seq Number:	3055272				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**394**	4.99	mg/kg	07.02.18 23.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 07.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1100**	15.0	mg/kg	07.06.18 07.56		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**45.5**	15.0	mg/kg	07.06.18 07.56		1
Total TPH	PHC635	**1150**	15.0	mg/kg	07.06.18 07.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.06.18 07.56	
o-Terphenyl	84-15-1	98	%	70-135	07.06.18 07.56	

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LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-002	Date Collected:	06.26.18 10.05	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.18 03.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.06.18 03.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.18 03.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.06.18 03.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.06.18 03.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.06.18 03.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.06.18 03.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.06.18 03.35	
4-Bromofluorobenzene	460-00-4	97	%	70-130	07.06.18 03.35	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS3**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-003	Date Collected:	06.26.18 10.10	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.02.18 14.30	Basis:	Wet Weight
Seq Number:	3055272				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**78.1**	4.98	mg/kg	07.02.18 23.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 08.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**2000**	15.0	mg/kg	07.06.18 08.15		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**30.1**	15.0	mg/kg	07.06.18 08.15		1
Total TPH	PHC635	**2030**	15.0	mg/kg	07.06.18 08.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.06.18 08.15	
o-Terphenyl	84-15-1	126	%	70-135	07.06.18 08.15	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS3**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-003	Date Collected:	06.26.18 10.10	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 03.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 03.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 03.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.06.18 03.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 03.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 03.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 03.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	70-130	07.06.18 03.51	
1,4-Difluorobenzene	540-36-3	70	%	70-130	07.06.18 03.51	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS5**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-005	Date Collected:	06.26.18 10.20	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.02.18 14.30	Basis:	Wet Weight
Seq Number:	3055272				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.85**	4.95	mg/kg	07.02.18 23.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 13.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 13.46	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 13.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 13.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.05.18 13.46	
o-Terphenyl	84-15-1	96	%	70-135	07.05.18 13.46	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS5**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-005	Date Collected:	06.26.18 10.20	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.06.18 04.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.06.18 04.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.06.18 04.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.06.18 04.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.06.18 04.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.06.18 04.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.06.18 04.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	07.06.18 04.09	
1,4-Difluorobenzene	540-36-3	123	%	70-130	07.06.18 04.09	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS6**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-006	Date Collected:	06.26.18 10.25	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**244**	5.00	mg/kg	07.03.18 10.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 14.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**48.6**	15.0	mg/kg	07.05.18 14.05		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 14.05	U	1
Total TPH	PHC635	**48.6**	15.0	mg/kg	07.05.18 14.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.05.18 14.05	
o-Terphenyl	84-15-1	95	%	70-135	07.05.18 14.05	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS6**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-006	Date Collected:	06.26.18 10.25	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 04.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 04.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 04.27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.06.18 04.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 04.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 04.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 04.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	07.06.18 04.27	
1,4-Difluorobenzene	540-36-3	78	%	70-130	07.06.18 04.27	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS1A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-007	Date Collected:	06.26.18 11.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**343**	4.99	mg/kg	07.03.18 11.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 14.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 14.25	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 14.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 14.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.05.18 14.25	
o-Terphenyl	84-15-1	93	%	70-135	07.05.18 14.25	

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LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS1A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-007	Date Collected:	06.26.18 11.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 04.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 04.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 04.43	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.06.18 04.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 04.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 04.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 04.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	79	%	70-130	07.06.18 04.43	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.06.18 04.43	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS2A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-008	Date Collected:	06.26.18 11.05	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**393**	4.96	mg/kg	07.03.18 11.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 14.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1130**	15.0	mg/kg	07.05.18 14.44		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**37.8**	15.0	mg/kg	07.05.18 14.44		1
Total TPH	PHC635	**1170**	15.0	mg/kg	07.05.18 14.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.05.18 14.44	
o-Terphenyl	84-15-1	97	%	70-135	07.05.18 14.44	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS2A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-008	Date Collected:	06.26.18 11.05	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.18 05.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.06.18 05.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.18 05.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.06.18 05.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.06.18 05.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.06.18 05.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.06.18 05.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.06.18 05.01	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.06.18 05.01	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS3A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-009	Date Collected:	06.26.18 11.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.1**	4.99	mg/kg	07.03.18 11.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.18 15.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**56.2**	14.9	mg/kg	07.05.18 15.04		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.05.18 15.04	U	1
Total TPH	PHC635	**56.2**	14.9	mg/kg	07.05.18 15.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.05.18 15.04	
o-Terphenyl	84-15-1	94	%	70-135	07.05.18 15.04	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS3A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-009	Date Collected:	06.26.18 11.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.06.18 05.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.06.18 05.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.06.18 05.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.06.18 05.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.06.18 05.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.06.18 05.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.06.18 05.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	07.06.18 05.19	
1,4-Difluorobenzene	540-36-3	92	%	70-130	07.06.18 05.19	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SS5A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-011	Date Collected:	06.26.18 11.20	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.79**	4.95	mg/kg	07.03.18 11.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 15.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 15.24	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 15.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 15.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	07.05.18 15.24	
o-Terphenyl	84-15-1	90	%	70-135	07.05.18 15.24	

Certificate of Analytical Results 590702

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS5A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-011	Date Collected:	06.26.18 11.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.06.18 05.37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.06.18 05.37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.06.18 05.37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.06.18 05.37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.06.18 05.37	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.06.18 05.37	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.06.18 05.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	79	%	70-130	07.06.18 05.37	
1,4-Difluorobenzene	540-36-3	81	%	70-130	07.06.18 05.37	

Certificate of Analytical Results 590702

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id: **SS6A** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590702-012 Date Collected: 06.26.18 11.25 Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**92.0**	5.00	mg/kg	07.03.18 11.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.05.18 08.00 Basis: Wet Weight

Seq Number: 3055653

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 15.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 15.43	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 15.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 15.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.05.18 15.43	
o-Terphenyl	84-15-1	93	%	70-135	07.05.18 15.43	

Certificate of Analytical Results 590702

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS6A**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590702-012	Date Collected:	06.26.18 11.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.06.18 05.55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.06.18 05.55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.06.18 05.55	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.06.18 05.55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.06.18 05.55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.06.18 05.55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.06.18 05.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.06.18 05.55	
4-Bromofluorobenzene	460-00-4	98	%	70-130	07.06.18 05.55	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 590702

LT Environmental, Inc.

PLU 320H/012918082

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055272 Matrix: Solid Date Prep: 07.02.18
MB Sample Id: 7657698-1-BLK LCS Sample Id: 7657698-1-BKS LCSD Sample Id: 7657698-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	246	98	244	98	90-110	1	20	mg/kg	07.02.18 20:35	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055446 Matrix: Solid Date Prep: 07.03.18
MB Sample Id: 7657778-1-BLK LCS Sample Id: 7657778-1-BKS LCSD Sample Id: 7657778-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	236	94	239	96	90-110	1	20	mg/kg	07.03.18 10:38	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055272 Matrix: Soil Date Prep: 07.02.18
Parent Sample Id: 590700-003 MS Sample Id: 590700-003 S MSD Sample Id: 590700-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.98	249	230	92	234	94	90-110	2	20	mg/kg	07.02.18 20:51	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055272 Matrix: Soil Date Prep: 07.02.18
Parent Sample Id: 590701-004 MS Sample Id: 590701-004 S MSD Sample Id: 590701-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	125	250	368	97	372	99	90-110	1	20	mg/kg	07.02.18 22:07	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055446 Matrix: Soil Date Prep: 07.03.18
Parent Sample Id: 590702-006 MS Sample Id: 590702-006 S MSD Sample Id: 590702-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	244	250	484	96	483	96	90-110	0	20	mg/kg	07.03.18 11:00	

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

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

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

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

QC Summary 590702

LT Environmental, Inc.

PLU 320H/012918082

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055446 Matrix: Soil Date Prep: 07.03.18
Parent Sample Id: 590704-003 MS Sample Id: 590704-003 S MSD Sample Id: 590704-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	436	250	661	90	663	91	90-110	0	20	mg/kg	07.03.18 12:16	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3055653 Matrix: Solid Date Prep: 07.05.18
MB Sample Id: 7657920-1-BLK LCS Sample Id: 7657920-1-BKS LCSD Sample Id: 7657920-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	937	94	992	99	70-135	6	20	mg/kg	07.05.18 11:29	
Diesel Range Organics (DRO)	<15.0	1000	958	96	1020	102	70-135	6	20	mg/kg	07.05.18 11:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		117		123		70-135	%	07.05.18 11:29
o-Terphenyl	107		105		114		70-135	%	07.05.18 11:29

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3055653 Matrix: Soil Date Prep: 07.05.18
Parent Sample Id: 590702-001 MS Sample Id: 590702-001 S MSD Sample Id: 590702-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	932	93	959	96	70-135	3	20	mg/kg	07.05.18 12:27	
Diesel Range Organics (DRO)	32.8	999	1020	99	1060	103	70-135	4	20	mg/kg	07.05.18 12:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		118		70-135	%	07.05.18 12:27
o-Terphenyl	102		104		70-135	%	07.05.18 12:27

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

QC Summary 590702

LT Environmental, Inc.

PLU 320H/012918082

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3055565 Matrix: Solid Date Prep: 07.05.18
MB Sample Id: 7657885-1-BLK LCS Sample Id: 7657885-1-BKS LCSD Sample Id: 7657885-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0852	85	0.0933	92	70-130	9	35	mg/kg	07.06.18 01:35	
Toluene	<0.00201	0.100	0.0820	82	0.0953	94	70-130	15	35	mg/kg	07.06.18 01:35	
Ethylbenzene	<0.00201	0.100	0.0813	81	0.0940	93	70-130	14	35	mg/kg	07.06.18 01:35	
m,p-Xylenes	<0.00402	0.201	0.168	84	0.194	96	70-130	14	35	mg/kg	07.06.18 01:35	
o-Xylene	<0.00201	0.100	0.0820	82	0.0921	91	70-130	12	35	mg/kg	07.06.18 01:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		77		88		70-130	%	07.06.18 01:35
4-Bromofluorobenzene	86		73		95		70-130	%	07.06.18 01:35

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3055565 Matrix: Soil Date Prep: 07.05.18
Parent Sample Id: 590702-001 MS Sample Id: 590702-001 S MSD Sample Id: 590702-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0823	83	0.0904	90	70-130	9	35	mg/kg	07.06.18 02:11	
Toluene	<0.00199	0.0996	0.0836	84	0.0927	93	70-130	10	35	mg/kg	07.06.18 02:11	
Ethylbenzene	<0.00199	0.0996	0.0797	80	0.0890	89	70-130	11	35	mg/kg	07.06.18 02:11	
m,p-Xylenes	<0.00398	0.199	0.163	82	0.179	90	70-130	9	35	mg/kg	07.06.18 02:11	
o-Xylene	<0.00199	0.0996	0.0742	74	0.0852	85	70-130	14	35	mg/kg	07.06.18 02:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		124		70-130	%	07.06.18 02:11
4-Bromofluorobenzene	91		102		70-130	%	07.06.18 02:11

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

CHAIN OF CUSTODY

Revision 2016.1

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Setting the Standard since 1990

Page 1 Of 2

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

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Xenco Quote #: | Xenco Job #: 590702

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian Office
Company Address: 3300 N "A" St, Bldg 2, Unit 103, Midland, TX
Email: Aballer@ltenv.com Phone No: 432-704-5178
Project Contact: Adrian Baller
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: PLU 320 H / 01291808Z
Project Location: NM
Invoice To: XTO Energy - Hyde Lithium
PO Number: 2RP-2888, 3563

Analytical Information

BTEX | TPH | Chloride

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SS1	6"	6/26	1000	Soil	1								X	
2	SS2			1005											
3	SS3			1010											
4	SS4			1015											
5	SS5			1020											
6	SS6	↓		1035											
7	SS1A	2'		1100											
8	SS2A			1105											
9	SS3A			1110											
10	SS4A	↓	↓	1115	↓	↓								↓	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY
- [x] Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking # 772584593635

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/27/18 0930				
2					6/27 15:30	6/28/18
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
5						Y 3.2 NA 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

CHAIN OF CUSTODY

Revision 2016.1

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Setting the Standard since 1990

590702

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Xenco Quote # | Xenco Job # 590702

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc - Permian Office
Company Address: 3300 N "A" St, Bldg 1, Unit 103, Midland, TX
Email: Abaker@ltenviron.com Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: PLU 32OH / 012918082
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2888, 3563

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride	Field Comments
1	SS5A	2'	6-26-18	1120	Soil	1								X	X	X	X	
2	SS6A	2'	2	1125	2	1								X	X	X	X	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking # 777598159363 35

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Daniel Thomas	6-27-18 10:30				
2				Daniel Thomas	6/27 15:30	
3						
4						6/28/18 1010
5						

Custody Seal # | Preserved where applicable | On Ice: X | Cooler Temp. 3.2 | Thermo. Corr. Factor 0.0

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1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.


CUSTODY SEAL
Date
Signature


Thermo
SCIENTIFIC
90009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06/28/2018 10:10:00 AM

Work Order #: 590702

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**N/A**
#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)?	**N/A**
#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: Brianna Teel Date: 06/28/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06/28/2018
Jessica Kramer

Analytical Report 591022

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU 320H/12918082

012918082

10-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

10-JUL-18

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

Reference: XENCO Report No(s): **591022**
PLU 320H/12918082
Project Address: NM

Adrian Baker:

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) 591022. 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. 591022 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS1	S	06-28-18 10:30	3 ft	591022-001
SW1	S	06-28-18 10:35	2 ft	591022-002
SW2	S	06-28-18 10:40	2 ft	591022-003
SW3	S	06-28-18 10:45	2 ft	591022-004
SW4	S	06-28-18 10:50	2 ft	591022-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 320H/12918082

Project ID: *012918082*
Work Order Number(s): *591022*

Report Date: *10-JUL-18*
Date Received: *06/30/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055790 BTEX by EPA 8021B

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

Certificate of Analysis Summary 591022

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H/12918082

Project Id: 012918082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Sat Jun-30-18 09:00 am
Report Date: 10-JUL-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	591022-001		591022-002		591022-003		591022-004		591022-005	
	Field Id:	FS1		SW1		SW2		SW3		SW4	
	Depth:	3- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-28-18 10:30		Jun-28-18 10:35		Jun-28-18 10:40		Jun-28-18 10:45		Jun-28-18 10:50	
BTEX by EPA 8021B	***Extracted:***	Jul-07-18 07:45		Jul-07-18 07:45		Jul-07-18 07:45		Jul-07-18 07:45		Jul-07-18 07:45	
	Analyzed:	Jul-07-18 18:40		Jul-07-18 18:58		Jul-07-18 19:16		Jul-07-18 19:34		Jul-07-18 20:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00402	0.00402	<0.00399	0.00399	<0.00402	0.00402
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Jul-05-18 16:30		Jul-05-18 16:30		Jul-05-18 16:30		Jul-05-18 16:30		Jul-05-18 16:30	
	Analyzed:	Jul-06-18 00:30		Jul-06-18 00:36		Jul-06-18 00:41		Jul-06-18 00:47		Jul-06-18 00:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		98.7	4.96	102	4.99	64.4	5.00	101	4.91	128	4.90
TPH by SW8015 Mod	***Extracted:***	Jul-06-18 14:00		Jul-06-18 14:00		Jul-06-18 14:00		Jul-06-18 14:00		Jul-06-18 14:00	
	Analyzed:	Jul-07-18 00:51		Jul-07-18 01:49		Jul-07-18 02:09		Jul-07-18 02:28		Jul-07-18 02:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id: **FS1** Matrix: Soil Date Received:06.30.18 09.00

Lab Sample Id: 591022-001 Date Collected: 06.28.18 10.30 Sample Depth:3 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.05.18 16.30 Basis: Wet Weight

Seq Number: 3055724

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**98.7**	4.96	mg/kg	07.06.18 00.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 14.00 Basis: Wet Weight

Seq Number: 3055782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 00.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 00.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 00.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 00.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.07.18 00.51	
o-Terphenyl	84-15-1	96	%	70-135	07.07.18 00.51	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id:	**FS1**	Matrix:	Soil	Date Received:	06.30.18 09.00
Lab Sample Id:	591022-001	Date Collected:	06.28.18 10.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.18 18.40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.18 18.40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.18 18.40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.07.18 18.40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.07.18 18.40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.07.18 18.40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.07.18 18.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	72	%	70-130	07.07.18 18.40	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.07.18 18.40	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id:	**SW1**	Matrix:	Soil	Date Received:	06.30.18 09.00
Lab Sample Id:	591022-002	Date Collected:	06.28.18 10.35	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.05.18 16.30	Basis:	Wet Weight
Seq Number:	3055724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**102**	4.99	mg/kg	07.06.18 00.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.06.18 14.00	Basis:	Wet Weight
Seq Number:	3055782				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.07.18 01.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.07.18 01.49	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.07.18 01.49	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.07.18 01.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.07.18 01.49	
o-Terphenyl	84-15-1	96	%	70-135	07.07.18 01.49	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id:	**SW1**	Matrix:	Soil	Date Received:	06.30.18 09.00
Lab Sample Id:	591022-002	Date Collected:	06.28.18 10.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.18 18.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.18 18.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.18 18.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.18 18.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.18 18.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.18 18.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.18 18.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	77	%	70-130	07.07.18 18.58	
1,4-Difluorobenzene	540-36-3	90	%	70-130	07.07.18 18.58	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id: **SW2** Matrix: Soil Date Received:06.30.18 09.00

Lab Sample Id: 591022-003 Date Collected: 06.28.18 10.40 Sample Depth:2 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.05.18 16.30 Basis: Wet Weight

Seq Number: 3055724

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**64.4**	5.00	mg/kg	07.06.18 00.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 14.00 Basis: Wet Weight

Seq Number: 3055782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 02.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 02.09	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 02.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 02.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.07.18 02.09	
o-Terphenyl	84-15-1	95	%	70-135	07.07.18 02.09	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id:	**SW2**	Matrix:	Soil	Date Received:	06.30.18 09.00
Lab Sample Id:	591022-003	Date Collected:	06.28.18 10.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.18 19.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.18 19.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.18 19.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.18 19.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.18 19.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.18 19.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.18 19.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	73	%	70-130	07.07.18 19.16	
1,4-Difluorobenzene	540-36-3	87	%	70-130	07.07.18 19.16	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id: **SW3** Matrix: Soil Date Received:06.30.18 09.00

Lab Sample Id: 591022-004 Date Collected: 06.28.18 10.45 Sample Depth:2 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.05.18 16.30 Basis: Wet Weight

Seq Number: 3055724

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**101**	4.91	mg/kg	07.06.18 00.47		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 14.00 Basis: Wet Weight

Seq Number: 3055782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 02.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 02.28	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 02.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 02.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.07.18 02.28	
o-Terphenyl	84-15-1	94	%	70-135	07.07.18 02.28	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id:	**SW3**	Matrix:	Soil	Date Received:	06.30.18 09.00
Lab Sample Id:	591022-004	Date Collected:	06.28.18 10.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.18 19.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.18 19.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.18 19.34	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.07.18 19.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.18 19.34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.18 19.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.18 19.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	73	%	70-130	07.07.18 19.34	
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.07.18 19.34	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id: **SW4** Matrix: Soil Date Received:06.30.18 09.00

Lab Sample Id: 591022-005 Date Collected: 06.28.18 10.50 Sample Depth:2 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.05.18 16.30 Basis: Wet Weight

Seq Number: 3055724

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**128**	4.90	mg/kg	07.06.18 00.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 14.00 Basis: Wet Weight

Seq Number: 3055782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 02.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 02.48	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 02.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 02.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.07.18 02.48	
o-Terphenyl	84-15-1	97	%	70-135	07.07.18 02.48	

Certificate of Analytical Results 591022

LT Environmental, Inc., Arvada, CO

PLU 320H/12918082

Sample Id:	**SW4**	Matrix:	Soil	Date Received:	06.30.18 09.00
Lab Sample Id:	591022-005	Date Collected:	06.28.18 10.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.18 20.28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.18 20.28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.18 20.28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.18 20.28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.18 20.28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.18 20.28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.18 20.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	125	%	70-130	07.07.18 20.28	
4-Bromofluorobenzene	460-00-4	124	%	70-130	07.07.18 20.28	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 591022

LT Environmental, Inc.

PLU 320H/12918082

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3055724 — Matrix: Solid — Date Prep: 07.05.18
MB Sample Id: 7657873-1-BLK — LCS Sample Id: 7657873-1-BKS — LCSD Sample Id: 7657873-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	236	94	244	98	90-110	3	20	mg/kg	07.05.18 22:21	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3055724 — Matrix: Soil — Date Prep: 07.05.18
Parent Sample Id: 591014-001 — MS Sample Id: 591014-001 S — MSD Sample Id: 591014-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	154	249	392	96	399	98	90-110	2	20	mg/kg	07.05.18 22:37	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3055724 — Matrix: Soil — Date Prep: 07.05.18
Parent Sample Id: 591015-007 — MS Sample Id: 591015-007 S — MSD Sample Id: 591015-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.36	246	237	94	249	99	90-110	5	20	mg/kg	07.05.18 23:53	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3055782 — Matrix: Solid — Date Prep: 07.06.18
MB Sample Id: 7657984-1-BLK — LCS Sample Id: 7657984-1-BKS — LCSD Sample Id: 7657984-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	976	98	992	99	70-135	2	20	mg/kg	07.06.18 20:38	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	1040	104	70-135	3	20	mg/kg	07.06.18 20:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		116		114		70-135	%	07.06.18 20:38
o-Terphenyl	108		104		110		70-135	%	07.06.18 20:38

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

QC Summary 591022

LT Environmental, Inc.

PLU 320H/12918082

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3055782 | Matrix: Soil | Date Prep: 07.06.18
Parent Sample Id: 591010-002 | MS Sample Id: 591010-002 S | MSD Sample Id: 591010-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	977	98	1030	103	70-135	5	20	mg/kg	07.06.18 21:56	
Diesel Range Organics (DRO)	<15.0	997	1010	101	1060	106	70-135	5	20	mg/kg	07.06.18 21:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		118		70-135	%	07.06.18 21:56
o-Terphenyl	103		105		70-135	%	07.06.18 21:56

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3055790 | Matrix: Solid | Date Prep: 07.07.18
MB Sample Id: 7657996-1-BLK | LCS Sample Id: 7657996-1-BKS | LCSD Sample Id: 7657996-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0928	93	0.0923	91	70-130	1	35	mg/kg	07.07.18 15:05	
Toluene	<0.00201	0.100	0.0940	94	0.0945	94	70-130	1	35	mg/kg	07.07.18 15:05	
Ethylbenzene	<0.00201	0.100	0.0936	94	0.0934	92	70-130	0	35	mg/kg	07.07.18 15:05	
m,p-Xylenes	<0.00402	0.201	0.189	94	0.195	97	70-130	3	35	mg/kg	07.07.18 15:05	
o-Xylene	<0.00201	0.100	0.0891	89	0.0988	98	70-130	10	35	mg/kg	07.07.18 15:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	120		101		99		70-130	%	07.07.18 15:05
4-Bromofluorobenzene	88		80		88		70-130	%	07.07.18 15:05

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3055790 | Matrix: Soil | Date Prep: 07.07.18
Parent Sample Id: 591023-003 | MS Sample Id: 591023-003 S | MSD Sample Id: 591023-003 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	0.0834	83	0.0819	81	70-130	2	35	mg/kg	07.07.18 15:41	
Toluene	<0.00200	0.100	0.0840	84	0.0776	77	70-130	8	35	mg/kg	07.07.18 15:41	
Ethylbenzene	<0.00200	0.100	0.0815	82	0.0771	76	70-130	6	35	mg/kg	07.07.18 15:41	
m,p-Xylenes	<0.00401	0.200	0.165	83	0.157	78	70-130	5	35	mg/kg	07.07.18 15:41	
o-Xylene	<0.00200	0.100	0.0793	79	0.0763	76	70-130	4	35	mg/kg	07.07.18 15:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		83		70-130	%	07.07.18 15:41
4-Bromofluorobenzene	83		78		70-130	%	07.07.18 15:41

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

CHAIN OF CUSTODY

Page 1 Of 1

Revision 2016.1

XENCO LABORATORIES

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Stafford, TX (281) 240-4200 | El Paso, TX (915) 585-3443 | Midland, TX (432) 704-5440 | Phoenix, AZ (480) 355-0900 | Service Center- Amarillo, TX (806)678-4514
Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote # | Xenco Job # 591022

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Offic
Company Address: 3300 N "A" St, Bldg 1, Unit 103 Midland, TX
Email: Abaker@ltenv | Phone No: 432 704 5178
Project Contact: Adrian Baker
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: PLU 320 H 10129180B2
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2888, 3563

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride	Field Comments
1	FS1	3'	6-28-18	1030	Soil	1								X	X	X	X	
2	SW1	2'		1035														
3	SW2			1040														
4	SW3			1045														
5	SW4			1050														
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY ✓ Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking # 772609057939

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished By Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/28/18 1730	1	2	6/29/18 15:30	2 6-30-18 0900
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			3.2 NB 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

After printing this label:
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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06/30/2018 09:00:00 AM

Work Order #: 591022

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#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)?	**N/A**
#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: Brianna Teel Date: 07/02/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 07/02/2018
Jessica Kramer

Analytical Report 591176

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU 320H/012918082

012918082

11-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

11-JUL-18

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

Reference: XENCO Report No(s): **591176**
PLU 320H/012918082
Project Address: NM

Adrian Baker:

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) 591176. 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. 591176 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

Sample Cross Reference 591176

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS16	S	06-29-18 10:00	6 In	591176-001
SS17	S	06-29-18 10:05	6 In	591176-002
SS18	S	06-29-18 10:10	6 In	591176-003

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 320H/012918082

Project ID: *012918082*
Work Order Number(s): *591176*

Report Date: *11-JUL-18*
Date Received: *07/03/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055856 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3056046 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 591176

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H/012918082

Project Id: 012918082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Tue Jul-03-18 10:47 am
Report Date: 11-JUL-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	591176-001		591176-002		591176-003			
	Field Id:	SS16		SS17		SS18			
	Depth:	6- In		6- In		6- In			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Jun-29-18 10:00		Jun-29-18 10:05		Jun-29-18 10:10			
BTEX by EPA 8021B	***Extracted:***	Jul-09-18 15:00		Jul-09-18 07:40		Jul-09-18 07:40			
	Analyzed:	Jul-10-18 02:28		Jul-10-18 11:10		Jul-10-18 11:28			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00199	0.00199	<0.0100	0.0100	<0.0100	0.0100		
Toluene		<0.00199	0.00199	<0.0100	0.0100	<0.0100	0.0100		
Ethylbenzene		<0.00199	0.00199	<0.0100	0.0100	<0.0100	0.0100		
m,p-Xylenes		<0.00398	0.00398	<0.0200	0.0200	<0.0200	0.0200		
o-Xylene		<0.00199	0.00199	<0.0100	0.0100	<0.0100	0.0100		
Total Xylenes		<0.00199	0.00199	<0.0100	0.0100	<0.0100	0.0100		
Total BTEX		<0.00199	0.00199	<0.0100	0.0100	<0.0100	0.0100		
Inorganic Anions by EPA 300	***Extracted:***	Jul-09-18 16:45		Jul-09-18 16:45		Jul-09-18 16:45			
	Analyzed:	Jul-09-18 22:39		Jul-09-18 22:55		Jul-09-18 23:00			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		90.4	4.98	85.7	4.96	101	4.92		
TPH by SW8015 Mod	***Extracted:***	Jul-09-18 07:00		Jul-09-18 07:00		Jul-09-18 07:00			
	Analyzed:	Jul-09-18 09:08		Jul-09-18 10:25		Jul-09-18 10:45			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0		
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0		
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0		

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 591176

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS16**	Matrix:	Soil	Date Received:	07.03.18 10.47
Lab Sample Id:	591176-001	Date Collected:	06.29.18 10.00	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.09.18 16.45	Basis:	Wet Weight
Seq Number:	3055867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**90.4**	4.98	mg/kg	07.09.18 22.39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.09.18 07.00	Basis:	Wet Weight
Seq Number:	3055934				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.09.18 09.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.09.18 09.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.09.18 09.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.09.18 09.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.09.18 09.08	
o-Terphenyl	84-15-1	102	%	70-135	07.09.18 09.08	

Certificate of Analytical Results 591176

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS16**	Matrix:	Soil	Date Received:	07.03.18 10.47
Lab Sample Id:	591176-001	Date Collected:	06.29.18 10.00	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.09.18 15.00	Basis:	Wet Weight
Seq Number:	3055856				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.10.18 02.28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.10.18 02.28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.10.18 02.28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.10.18 02.28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.10.18 02.28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.10.18 02.28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.10.18 02.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	76	%	70-130	07.10.18 02.28	
4-Bromofluorobenzene	460-00-4	71	%	70-130	07.10.18 02.28	

Certificate of Analytical Results 591176

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS17**	Matrix:	Soil	Date Received:	07.03.18 10.47
Lab Sample Id:	591176-002	Date Collected:	06.29.18 10.05	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.09.18 16.45	Basis:	Wet Weight
Seq Number:	3055867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**85.7**	4.96	mg/kg	07.09.18 22.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.09.18 07.00	Basis:	Wet Weight
Seq Number:	3055934				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.09.18 10.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.09.18 10.25	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.09.18 10.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.09.18 10.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.09.18 10.25	
o-Terphenyl	84-15-1	102	%	70-135	07.09.18 10.25	

Certificate of Analytical Results 591176

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS17**	Matrix:	Soil	Date Received:	07.03.18 10.47
Lab Sample Id:	591176-002	Date Collected:	06.29.18 10.05	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.09.18 07.40	Basis:	Wet Weight
Seq Number:	3056046				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0100	0.0100	mg/kg	07.10.18 11.10	U	1
Toluene	108-88-3	<0.0100	0.0100	mg/kg	07.10.18 11.10	U	1
Ethylbenzene	100-41-4	<0.0100	0.0100	mg/kg	07.10.18 11.10	U	1
m,p-Xylenes	179601-23-1	<0.0200	0.0200	mg/kg	07.10.18 11.10	U	1
o-Xylene	95-47-6	<0.0100	0.0100	mg/kg	07.10.18 11.10	U	1
Total Xylenes	1330-20-7	<0.0100	0.0100	mg/kg	07.10.18 11.10	U	1
Total BTEX		<0.0100	0.0100	mg/kg	07.10.18 11.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	76	%	70-130	07.10.18 11.10	
1,4-Difluorobenzene	540-36-3	89	%	70-130	07.10.18 11.10	

Certificate of Analytical Results 591176

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS18**	Matrix:	Soil	Date Received:	07.03.18 10.47
Lab Sample Id:	591176-003	Date Collected:	06.29.18 10.10	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.09.18 16.45	Basis:	Wet Weight
Seq Number:	3055867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**101**	4.92	mg/kg	07.09.18 23.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.09.18 07.00	Basis:	Wet Weight
Seq Number:	3055934				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.09.18 10.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.09.18 10.45	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.09.18 10.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.09.18 10.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.09.18 10.45	
o-Terphenyl	84-15-1	102	%	70-135	07.09.18 10.45	

Certificate of Analytical Results 591176

LT Environmental, Inc., Arvada, CO

PLU 320H/012918082

Sample Id:	**SS18**	Matrix:	Soil	Date Received:	07.03.18 10.47
Lab Sample Id:	591176-003	Date Collected:	06.29.18 10.10	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.09.18 07.40	Basis:	Wet Weight
Seq Number:	3056046				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0100	0.0100	mg/kg	07.10.18 11.28	U	1
Toluene	108-88-3	<0.0100	0.0100	mg/kg	07.10.18 11.28	U	1
Ethylbenzene	100-41-4	<0.0100	0.0100	mg/kg	07.10.18 11.28	U	1
m,p-Xylenes	179601-23-1	<0.0200	0.0200	mg/kg	07.10.18 11.28	U	1
o-Xylene	95-47-6	<0.0100	0.0100	mg/kg	07.10.18 11.28	U	1
Total Xylenes	1330-20-7	<0.0100	0.0100	mg/kg	07.10.18 11.28	U	1
Total BTEX		<0.0100	0.0100	mg/kg	07.10.18 11.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	07.10.18 11.28	
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.10.18 11.28	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 591176

LT Environmental, Inc.

PLU 320H/012918082

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055867 Matrix: Solid Date Prep: 07.09.18
MB Sample Id: 7658036-1-BLK LCS Sample Id: 7658036-1-BKS LCSD Sample Id: 7658036-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	269	108	257	103	90-110	5	20	mg/kg	07.09.18 22:28	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055867 Matrix: Soil Date Prep: 07.09.18
Parent Sample Id: 591176-001 MS Sample Id: 591176-001 S MSD Sample Id: 591176-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	90.4	249	355	106	356	107	90-110	0	20	mg/kg	07.09.18 22:44	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055867 Matrix: Soil Date Prep: 07.09.18
Parent Sample Id: 591177-005 MS Sample Id: 591177-005 S MSD Sample Id: 591177-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	558	246	808	102	782	91	90-110	3	20	mg/kg	07.10.18 00:00	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3055934 Matrix: Solid Date Prep: 07.09.18
MB Sample Id: 7658090-1-BLK LCS Sample Id: 7658090-1-BKS LCSD Sample Id: 7658090-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	970	97	961	96	70-135	1	20	mg/kg	07.09.18 08:29	
Diesel Range Organics (DRO)	<15.0	1000	989	99	979	98	70-135	1	20	mg/kg	07.09.18 08:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		127		122		70-135	%	07.09.18 08:29
o-Terphenyl	104		116		112		70-135	%	07.09.18 08:29

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

QC Summary 591176

LT Environmental, Inc.

PLU 320H/012918082

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3055934 Matrix: Soil Date Prep: 07.09.18
Parent Sample Id: 591176-001 MS Sample Id: 591176-001 S MSD Sample Id: 591176-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	966	97	963	96	70-135	0	20	mg/kg	07.09.18 09:27	
Diesel Range Organics (DRO)	<15.0	999	985	99	998	100	70-135	1	20	mg/kg	07.09.18 09:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		120		70-135	%	07.09.18 09:27
o-Terphenyl	107		103		70-135	%	07.09.18 09:27

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3056046 Matrix: Solid Date Prep: 07.09.18
MB Sample Id: 7658167-1-BLK LCS Sample Id: 7658167-1-BKS LCSD Sample Id: 7658167-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0100	0.500	0.459	92	0.484	97	70-130	5	35	mg/kg	07.10.18 05:08	
Toluene	<0.0100	0.500	0.499	100	0.497	99	70-130	0	35	mg/kg	07.10.18 05:08	
Ethylbenzene	<0.0100	0.500	0.462	92	0.502	100	70-130	8	35	mg/kg	07.10.18 05:08	
m,p-Xylenes	<0.0200	1.00	0.950	95	1.05	105	70-130	10	35	mg/kg	07.10.18 05:08	
o-Xylene	<0.0100	0.500	0.451	90	0.486	97	70-130	7	35	mg/kg	07.10.18 05:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		95		98		70-130	%	07.10.18 05:08
4-Bromofluorobenzene	95		92		91		70-130	%	07.10.18 05:08

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3055856 Matrix: Solid Date Prep: 07.09.18
MB Sample Id: 7658027-1-BLK LCS Sample Id: 7658027-1-BKS LCSD Sample Id: 7658027-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0927	93	0.102	102	70-130	10	35	mg/kg	07.09.18 20:10	
Toluene	<0.00200	0.0998	0.101	101	0.106	106	70-130	5	35	mg/kg	07.09.18 20:10	
Ethylbenzene	<0.00200	0.0998	0.0928	93	0.103	103	70-130	10	35	mg/kg	07.09.18 20:10	
m,p-Xylenes	<0.00399	0.200	0.199	100	0.214	106	70-130	7	35	mg/kg	07.09.18 20:10	
o-Xylene	<0.00200	0.0998	0.0941	94	0.104	104	70-130	10	35	mg/kg	07.09.18 20:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		117		116		70-130	%	07.09.18 20:10
4-Bromofluorobenzene	71		84		96		70-130	%	07.09.18 20:10

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

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

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

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

Final 1.000

QC Summary 591176

LT Environmental, Inc.

PLU 320H/012918082

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3056046 Matrix: Soil Date Prep: 07.09.18
Parent Sample Id: 591451-001 MS Sample Id: 591451-001 S MSD Sample Id: 591451-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0100	0.500	0.291	58	0.354	71	70-130	20	35	mg/kg	07.10.18 05:44	X
Toluene	<0.0100	0.500	0.229	46	0.330	66	70-130	36	35	mg/kg	07.10.18 05:44	XF
Ethylbenzene	<0.0100	0.500	0.167	33	0.287	57	70-130	53	35	mg/kg	07.10.18 05:44	XF
m,p-Xylenes	<0.0200	1.00	0.331	33	0.560	56	70-130	51	35	mg/kg	07.10.18 05:44	XF
o-Xylene	<0.0100	0.500	0.157	31	0.287	57	70-130	59	35	mg/kg	07.10.18 05:44	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	124		99		70-130	%	07.10.18 05:44
4-Bromofluorobenzene	88		91		70-130	%	07.10.18 05:44

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3055856 Matrix: Soil Date Prep: 07.09.18
Parent Sample Id: 591178-002 MS Sample Id: 591178-002 S MSD Sample Id: 591178-002 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	0.0805	81	0.0774	77	70-130	4	35	mg/kg	07.09.18 20:46	
Toluene	<0.00200	0.100	0.0771	77	0.0742	73	70-130	4	35	mg/kg	07.09.18 20:46	
Ethylbenzene	<0.00200	0.100	0.0640	64	0.0644	64	70-130	1	35	mg/kg	07.09.18 20:46	X
m,p-Xylenes	<0.00401	0.200	0.126	63	0.131	65	70-130	4	35	mg/kg	07.09.18 20:46	X
o-Xylene	<0.00200	0.100	0.0635	64	0.0617	61	70-130	3	35	mg/kg	07.09.18 20:46	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	124		88		70-130	%	07.09.18 20:46
4-Bromofluorobenzene	101		95		70-130	%	07.09.18 20:46

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

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Xenco Quote # | Xenco Job # 591176

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian Office
Company Address: 3300 N "A" St, Bldg 1, Unit 103 Midland, TX
Email: Abaker@ltenv.com Phone No: 432 704 5178
Project Contact: Adrian Baker
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: PLU 320 H 10129180 82
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2888, 3563

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride	Field Comments
1	SS16	6"	6-29-18	1000	Soil	1								X	X	X	X	
2	SS17	↓	↓	1005	↓	↓								↓	↓	↓	↓	
3	SS18	↓	↓	1010	↓	↓								↓	↓	↓	↓	
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY ✓ Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ Level II Report with TRRP checklist

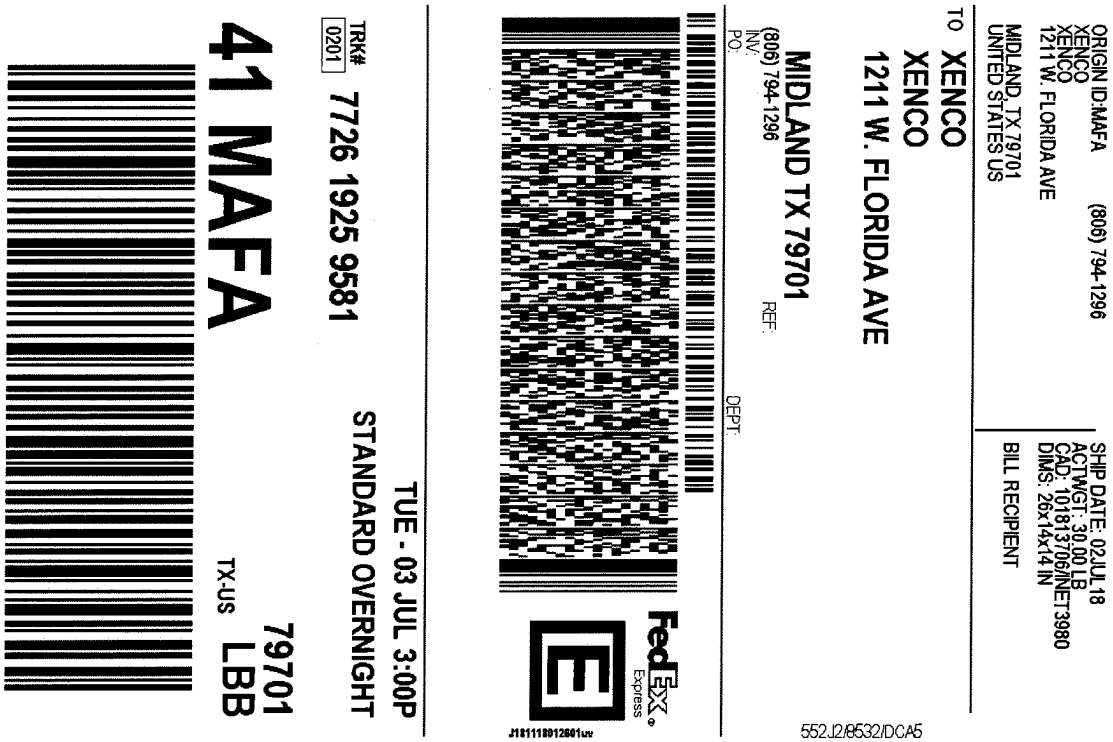
Notes:

FED-EX / UPS: Tracking # 772619259581

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/29/18 1700	1 6/29/18 17:00	2	7/2/18 15:30	2 7/3/18 1047
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: ✓ Cooler Temp.: 3.2 Thermo. Corr. Factor: 0.0
			5		☐	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.



After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/03/2018 10:47:00 AM

Work Order #: 591176

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#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)?	**N/A**
#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: Brianna Teel Date: 07/03/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 07/03/2018

Jessica Kramer

Analytical Report 578591

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU #320 2RP-3769

14-MAR-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

14-MAR-18

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

Reference: XENCO Report No(s): **578591**
PLU #320 2RP-3769
Project Address: NM

Adrian Baker:

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) 578591. 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. 578591 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	03-06-18 11:40	6 In	578591-001
SS2	S	03-06-18 11:45	6 In	578591-002
SS3	S	03-06-18 11:55	6 In	578591-003
SS4	S	03-06-18 12:00	6 In	578591-004
SS5	S	03-06-18 12:10	6 In	578591-005

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU #320 2RP-3769

Project ID:
Work Order Number(s): *578591*

Report Date: *14-MAR-18*
Date Received: *03/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3043356 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3043503 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 578591

LT Environmental, Inc., Arvada, CO

Project Name: PLU #320 2RP-3769

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Wed Mar-07-18 03:08 pm
Report Date: 14-MAR-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	578591-001		578591-002		578591-003		578591-004		578591-005	
	Field Id:	SS1		SS2		SS3		SS4		SS5	
	Depth:	6- In		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-06-18 11:40		Mar-06-18 11:45		Mar-06-18 11:55		Mar-06-18 12:00		Mar-06-18 12:10	
BTEX by EPA 8021B	***Extracted:***	Mar-10-18 12:00		Mar-10-18 12:00		Mar-12-18 08:00		Mar-10-18 12:00		Mar-10-18 12:00	
	Analyzed:	Mar-10-18 14:23		Mar-10-18 14:42		Mar-12-18 12:00		Mar-10-18 15:21		Mar-10-18 15:40	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.0198	0.0198	<0.00200	0.00200	<0.00201	0.00201
Toluene		0.237	0.00202	<0.00200	0.00200	0.436	0.0198	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		0.0291	0.00202	<0.00200	0.00200	1.06	0.0198	<0.00200	0.00200	0.00395	0.00201
m,p-Xylenes		0.107	0.00404	<0.00401	0.00401	2.33	0.0397	0.0246	0.00399	0.00681	0.00402
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	1.83	0.0198	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		0.107	0.00202	<0.00200	0.00200	4.16	0.0198	0.0246	0.00200	0.00681	0.00201
Total BTEX		0.373	0.00202	<0.00200	0.00200	5.66	0.0198	0.0246	0.00200	0.0108	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Mar-12-18 15:00		Mar-12-18 15:00		Mar-12-18 15:00		Mar-12-18 15:00		Mar-12-18 15:00	
	Analyzed:	Mar-13-18 08:17		Mar-13-18 10:53		Mar-13-18 10:58		Mar-13-18 07:51		Mar-13-18 11:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		103	4.97	476	24.7	191	25.0	270	4.94	740	4.95
TPH by SW8015 Mod	***Extracted:***	Mar-10-18 16:00		Mar-10-18 16:00		Mar-10-18 16:00		Mar-10-18 16:00		Mar-10-18 16:00	
	Analyzed:	Mar-12-18 06:27		Mar-12-18 06:47		Mar-12-18 07:06		Mar-12-18 07:25		Mar-12-18 08:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		642	74.9	<15.0	15.0	2440	74.8	<150	150	<150	150
Diesel Range Organics (DRO)		5880	74.9	43.4	15.0	6650	74.8	10900	150	21200	150
Oil Range Hydrocarbons (ORO)		841	74.9	<15.0	15.0	951	74.8	2780	150	5630	150
Total TPH		7360	74.9	43.4	15.0	10000	74.8	13700	150	26800	150

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-001	Date Collected:	03.06.18 11.40	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**103**	4.97	mg/kg	03.13.18 08.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**642**	74.9	mg/kg	03.12.18 06.27		5
Diesel Range Organics (DRO)	C10C28DRO	**5880**	74.9	mg/kg	03.12.18 06.27		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**841**	74.9	mg/kg	03.12.18 06.27		5
Total TPH	PHC635	**7360**	74.9	mg/kg	03.12.18 06.27		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.12.18 06.27	
o-Terphenyl	84-15-1	103	%	70-135	03.12.18 06.27	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-001	Date Collected:	03.06.18 11.40	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.00	Basis:	Wet Weight
Seq Number:	3043356				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.10.18 14.23	U	1
Toluene	108-88-3	**0.237**	0.00202	mg/kg	03.10.18 14.23		1
Ethylbenzene	100-41-4	**0.0291**	0.00202	mg/kg	03.10.18 14.23		1
m,p-Xylenes	179601-23-1	**0.107**	0.00404	mg/kg	03.10.18 14.23		1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.10.18 14.23	U	1
Total Xylenes	1330-20-7	**0.107**	0.00202	mg/kg	03.10.18 14.23		1
Total BTEX		**0.373**	0.00202	mg/kg	03.10.18 14.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.10.18 14.23	
1,4-Difluorobenzene	540-36-3	76	%	70-130	03.10.18 14.23	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-002	Date Collected:	03.06.18 11.45	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**476**	24.7	mg/kg	03.13.18 10.53		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.12.18 06.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**43.4**	15.0	mg/kg	03.12.18 06.47		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	03.12.18 06.47	U	1
Total TPH	PHC635	**43.4**	15.0	mg/kg	03.12.18 06.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.12.18 06.47	
o-Terphenyl	84-15-1	104	%	70-135	03.12.18 06.47	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-002	Date Collected:	03.06.18 11.45	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.00	Basis:	Wet Weight
Seq Number:	3043356				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.10.18 14.42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.10.18 14.42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.10.18 14.42	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.10.18 14.42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.10.18 14.42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.10.18 14.42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.10.18 14.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	03.10.18 14.42	
1,4-Difluorobenzene	540-36-3	83	%	70-130	03.10.18 14.42	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-003	Date Collected:	03.06.18 11.55	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**191**	25.0	mg/kg	03.13.18 10.58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2440**	74.8	mg/kg	03.12.18 07.06		5
Diesel Range Organics (DRO)	C10C28DRO	**6650**	74.8	mg/kg	03.12.18 07.06		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**951**	74.8	mg/kg	03.12.18 07.06		5
Total TPH	PHC635	**10000**	74.8	mg/kg	03.12.18 07.06		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.12.18 07.06	
o-Terphenyl	84-15-1	88	%	70-135	03.12.18 07.06	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-003	Date Collected:	03.06.18 11.55	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.12.18 08.00	Basis:	Wet Weight
Seq Number:	3043503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0198	0.0198	mg/kg	03.12.18 12.00	U	10
Toluene	108-88-3	**0.436**	0.0198	mg/kg	03.12.18 12.00		10
Ethylbenzene	100-41-4	**1.06**	0.0198	mg/kg	03.12.18 12.00		10
m,p-Xylenes	179601-23-1	**2.33**	0.0397	mg/kg	03.12.18 12.00		10
o-Xylene	95-47-6	**1.83**	0.0198	mg/kg	03.12.18 12.00		10
Total Xylenes	1330-20-7	**4.16**	0.0198	mg/kg	03.12.18 12.00		10
Total BTEX		**5.66**	0.0198	mg/kg	03.12.18 12.00		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.12.18 12.00	
1,4-Difluorobenzene	540-36-3	71	%	70-130	03.12.18 12.00	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-004	Date Collected:	03.06.18 12.00	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**270**	4.94	mg/kg	03.13.18 07.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<150	150	mg/kg	03.12.18 07.25	U	10
Diesel Range Organics (DRO)	C10C28DRO	**10900**	150	mg/kg	03.12.18 07.25		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**2780**	150	mg/kg	03.12.18 07.25		10
Total TPH	PHC635	**13700**	150	mg/kg	03.12.18 07.25		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.12.18 07.25	
o-Terphenyl	84-15-1	96	%	70-135	03.12.18 07.25	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-004	Date Collected:	03.06.18 12.00	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.00	Basis:	Wet Weight
Seq Number:	3043356				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.10.18 15.21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.10.18 15.21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.10.18 15.21	U	1
m,p-Xylenes	179601-23-1	**0.0246**	0.00399	mg/kg	03.10.18 15.21		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.10.18 15.21	U	1
Total Xylenes	1330-20-7	**0.0246**	0.00200	mg/kg	03.10.18 15.21		1
Total BTEX		**0.0246**	0.00200	mg/kg	03.10.18 15.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	03.10.18 15.21	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.10.18 15.21	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-005	Date Collected:	03.06.18 12.10	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**740**	4.95	mg/kg	03.13.18 11.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<150	150	mg/kg	03.12.18 08.43	U	10
Diesel Range Organics (DRO)	C10C28DRO	**21200**	150	mg/kg	03.12.18 08.43		10
Oil Range Hydrocarbons (ORO)	PHCG2835	**5630**	150	mg/kg	03.12.18 08.43		10
Total TPH	PHC635	**26800**	150	mg/kg	03.12.18 08.43		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	03.12.18 08.43	
o-Terphenyl	84-15-1	87	%	70-135	03.12.18 08.43	

Certificate of Analytical Results 578591

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3769

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578591-005	Date Collected:	03.06.18 12.10	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.00	Basis:	Wet Weight
Seq Number:	3043356				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.10.18 15.40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.10.18 15.40	U	1
Ethylbenzene	100-41-4	**0.00395**	0.00201	mg/kg	03.10.18 15.40		1
m,p-Xylenes	179601-23-1	**0.00681**	0.00402	mg/kg	03.10.18 15.40		1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.10.18 15.40	U	1
Total Xylenes	1330-20-7	**0.00681**	0.00201	mg/kg	03.10.18 15.40		1
Total BTEX		**0.0108**	0.00201	mg/kg	03.10.18 15.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	79	%	70-130	03.10.18 15.40	
1,4-Difluorobenzene	540-36-3	80	%	70-130	03.10.18 15.40	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 578591

LT Environmental, Inc.

PLU #320 2RP-3769

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3043628 Matrix: Solid Date Prep: 03.12.18
MB Sample Id: 7640640-1-BLK LCS Sample Id: 7640640-1-BKS LCSD Sample Id: 7640640-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	240	96	254	102	90-110	6	20	mg/kg	03.13.18 07:33	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3043628 Matrix: Soil Date Prep: 03.12.18
Parent Sample Id: 578591-004 MS Sample Id: 578591-004 S MSD Sample Id: 578591-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	270	247	533	106	529	105	90-110	1	20	mg/kg	03.13.18 08:00	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3043628 Matrix: Soil Date Prep: 03.12.18
Parent Sample Id: 578593-001 MS Sample Id: 578593-001 S MSD Sample Id: 578593-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	263	105	261	104	90-110	1	20	mg/kg	03.13.18 19:00	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3043517 Matrix: Solid Date Prep: 03.10.18
MB Sample Id: 7640555-1-BLK LCS Sample Id: 7640555-1-BKS LCSD Sample Id: 7640555-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	939	94	1050	105	70-135	11	35	mg/kg	03.11.18 11:45	
Diesel Range Organics (DRO)	<15.0	1000	830	83	930	93	70-135	11	35	mg/kg	03.11.18 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		85		107		70-135	%	03.11.18 11:45
o-Terphenyl	91		85		99		70-135	%	03.11.18 11:45

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
E = MSD/LCSD Result

QC Summary 578591

LT Environmental, Inc.

PLU #320 2RP-3769

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3043517 | Matrix: Soil | Date Prep: 03.10.18
Parent Sample Id: 578121-001 | MS Sample Id: 578121-001 S | MSD Sample Id: 578121-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	893	89	877	88	70-135	2	35	mg/kg	03.11.18 12:49	
Diesel Range Organics (DRO)	31.1	999	802	77	801	77	70-135	0	35	mg/kg	03.11.18 12:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		96		70-135	%	03.11.18 12:49
o-Terphenyl	84		81		70-135	%	03.11.18 12:49

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3043356 | Matrix: Solid | Date Prep: 03.10.18
MB Sample Id: 7640532-1-BLK | LCS Sample Id: 7640532-1-BKS | LCSD Sample Id: 7640532-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0902	90	0.0860	86	70-130	5	35	mg/kg	03.10.18 12:07	
Toluene	<0.00200	0.0998	0.0963	96	0.0922	92	70-130	4	35	mg/kg	03.10.18 12:07	
Ethylbenzene	<0.00200	0.0998	0.110	110	0.105	105	70-130	5	35	mg/kg	03.10.18 12:07	
m,p-Xylenes	<0.00399	0.200	0.217	109	0.207	104	70-130	5	35	mg/kg	03.10.18 12:07	
o-Xylene	<0.00200	0.0998	0.106	106	0.101	101	70-130	5	35	mg/kg	03.10.18 12:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		92		86		70-130	%	03.10.18 12:07
4-Bromofluorobenzene	106		110		113		70-130	%	03.10.18 12:07

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3043503 | Matrix: Solid | Date Prep: 03.12.18
MB Sample Id: 7640672-1-BLK | LCS Sample Id: 7640672-1-BKS | LCSD Sample Id: 7640672-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0909	90	0.0883	88	70-130	3	35	mg/kg	03.12.18 06:55	
Toluene	<0.00202	0.101	0.0972	96	0.0942	94	70-130	3	35	mg/kg	03.12.18 06:55	
Ethylbenzene	<0.00202	0.101	0.111	110	0.109	109	70-130	2	35	mg/kg	03.12.18 06:55	
m,p-Xylenes	<0.00403	0.202	0.219	108	0.214	107	70-130	2	35	mg/kg	03.12.18 06:55	
o-Xylene	<0.00202	0.101	0.106	105	0.105	105	70-130	1	35	mg/kg	03.12.18 06:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		86		84		70-130	%	03.12.18 06:55
4-Bromofluorobenzene	110		119		118		70-130	%	03.12.18 06:55

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

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

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

QC Summary 578591

LT Environmental, Inc.

PLU #320 2RP-3769

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043356 Matrix: Soil Date Prep: 03.10.18
Parent Sample Id: 578592-001 MS Sample Id: 578592-001 S MSD Sample Id: 578592-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0443	44	0.0412	41	70-130	7	35	mg/kg	03.10.18 12:46	X
Toluene	<0.00202	0.101	0.0382	38	0.0279	28	70-130	31	35	mg/kg	03.10.18 12:46	X
Ethylbenzene	<0.00202	0.101	0.0304	30	0.0219	22	70-130	33	35	mg/kg	03.10.18 12:46	X
m,p-Xylenes	<0.00404	0.202	0.0650	32	0.0364	18	70-130	56	35	mg/kg	03.10.18 12:46	XF
o-Xylene	<0.00202	0.101	0.0301	30	0.0221	22	70-130	31	35	mg/kg	03.10.18 12:46	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	77		110		70-130	%	03.10.18 12:46
4-Bromofluorobenzene	72		116		70-130	%	03.10.18 12:46

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043503 Matrix: Soil Date Prep: 03.12.18
Parent Sample Id: 578649-001 MS Sample Id: 578649-001 S MSD Sample Id: 578649-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0584	59	0.0656	66	70-130	12	35	mg/kg	03.12.18 07:34	X
Toluene	<0.00199	0.0996	0.0607	61	0.0664	66	70-130	9	35	mg/kg	03.12.18 07:34	X
Ethylbenzene	<0.00199	0.0996	0.0666	67	0.0704	70	70-130	6	35	mg/kg	03.12.18 07:34	X
m,p-Xylenes	<0.00398	0.199	0.131	66	0.138	69	70-130	5	35	mg/kg	03.12.18 07:34	X
o-Xylene	<0.00199	0.0996	0.0651	65	0.0709	71	70-130	9	35	mg/kg	03.12.18 07:34	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		87		70-130	%	03.12.18 07:34
4-Bromofluorobenzene	120		129		70-130	%	03.12.18 07:34

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

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

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

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Phoenix, Arizona (480-355-0900)

www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

Sample jars are labeled 6-10

Xenco Quote #

Xenco Job # 578591

Client / Reporting Information

Company Name / Branch: LTE/Permian

Company Address: 3300 N. A Street Bldg 1 Suite 103 Midland TX 79705

Email: abaker@ltenv.com

Phone No: 432-704-5178

Project Contact: Adrian Baker

Samplers's Name

Project Information

Project Name/Number: PLU #320 2RP-3769

Project Location: NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: 30-015-39810

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA Method 8021	TPH EPA Method 8015 (DRO GRO MRO)	Chloride EPA Method 300.1	Field Comments
1	SS1	6"	3/6/18	1140	S	1									X	X	X	
2	SS2	↓	↓	1145	↓	↓									X	X	X	
3	SS3			1155											X	X	X	
4	SS4			1200											X	X	X	
5	SS5			1210											X	X	X	
6																		
7																		
8																		
9																		
10																		

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY
- Std turn around

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Temp: 2.6 IR ID:R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 2.4

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Ethan Conrad	3/6/1830				
2					3/6/18 1930	
3		3/7 14:50			3-7-18 15:08	
4						
5				Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03/07/2018 03:08:00 PM

Work Order #: 578591

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

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Connie Hernandez Date: 03/08/2018

Checklist reviewed by: Jessica Kramer Date: 03/08/2018

Jessica Kramer

Analytical Report 590704

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU 320 H

012318082

09-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

09-JUL-18

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

Reference: XENCO Report No(s): **590704**
PLU 320 H
Project Address: NM

Adrian Baker:

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) 590704. 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. 590704 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW7	S	06-26-18 14:15	3 ft	590704-001
SW8	S	06-26-18 14:20	3 ft	590704-002
SW9	S	06-26-18 14:25	3 ft	590704-003
SW10	S	06-26-18 14:30	3 ft	590704-004
SW11	S	06-26-18 14:35	3 ft	590704-005
SW12	S	06-26-18 14:40	3 ft	590704-006
SW13	S	06-26-18 14:45	4 ft	590704-007
SW14	S	06-26-18 14:50	4 ft	590704-008
SW15	S	06-26-18 14:55	4 ft	590704-009
SW16	S	06-26-18 15:00	4 ft	590704-010
SW17	S	06-26-18 15:05	4 ft	590704-011

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 320 H

Project ID: *012318082*
Work Order Number(s): *590704*

Report Date: *09-JUL-18*
Date Received: *06/28/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055548 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3055640 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 590704

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320 H

Project Id: 012318082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Thu Jun-28-18 10:10 am
Report Date: 09-JUL-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	590704-001		590704-002		590704-003		590704-004		590704-005		590704-006	
	Field Id:	SW7		SW8		SW9		SW10		SW11		SW12	
	Depth:	3- ft		3- ft		3- ft		3- ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-26-18 14:15		Jun-26-18 14:20		Jun-26-18 14:25		Jun-26-18 14:30		Jun-26-18 14:35		Jun-26-18 14:40	
BTEX by EPA 8021B	*Extracted:*	Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00	
	Analyzed:	Jul-05-18 13:12		Jul-05-18 14:07		Jul-05-18 14:23		Jul-05-18 14:41		Jul-05-18 15:00		Jul-05-18 15:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Inorganic Anions by EPA 300	*Extracted:*	Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30	
	Analyzed:	Jul-03-18 11:49		Jul-03-18 11:54		Jul-03-18 12:10		Jul-03-18 12:00		Jul-03-18 12:05		Jul-03-18 12:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1640	25.0	15.8	4.95	436	5.00	3280	25.0	1570	25.0	1360	25.0
TPH by SW8015 Mod	*Extracted:*	Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00	
	Analyzed:	Jul-06-18 11:58		Jul-06-18 12:58		Jul-06-18 13:18		Jul-06-18 13:38		Jul-06-18 13:58		Jul-06-18 14:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	84.3	15.0	<15.0	15.0	226	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	16.8	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	84.3	15.0	<15.0	15.0	243	15.0

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 590704

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320 H

Project Id: 012318082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Thu Jun-28-18 10:10 am
Report Date: 09-JUL-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	590704-007		590704-008		590704-009		590704-010		590704-011	
	Field Id:	SW13		SW14		SW15		SW16		SW17	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-26-18 14:45		Jun-26-18 14:50		Jun-26-18 14:55		Jun-26-18 15:00		Jun-26-18 15:05	
BTEX by EPA 8021B	***Extracted:***	Jul-05-18 08:00		Jul-05-18 08:00		Jul-06-18 11:30		Jul-06-18 11:30		Jul-06-18 11:30	
	Analyzed:	Jul-05-18 15:38		Jul-05-18 15:57		Jul-06-18 13:03		Jul-06-18 13:21		Jul-06-18 14:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	0.00835	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398	<0.00397	0.00397	0.0228	0.00401
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	0.0111	0.00200
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	0.0339	0.00200
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	0.0423	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30	
	Analyzed:	Jul-03-18 12:32		Jul-03-18 12:48		Jul-03-18 12:59		Jul-03-18 13:05		Jul-03-18 13:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		94.4	4.95	479	4.95	35.8	5.00	158	5.00	131	4.98
TPH by SW8015 Mod	***Extracted:***	Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00	
	Analyzed:	Jul-06-18 14:38		Jul-06-18 14:58		Jul-06-18 15:18		Jul-06-18 15:39		Jul-06-18 16:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	19.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	62.2	15.0	57.4	14.9	36.2	15.0	1390	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	45.9	15.0
Total TPH		<15.0	15.0	62.2	15.0	57.4	14.9	36.2	15.0	1450	15.0

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW7** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-001 Date Collected: 06.26.18 14.15 Sample Depth:3 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1640**	25.0	mg/kg	07.03.18 11.49		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 11.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.06.18 11.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 11.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.06.18 11.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.06.18 11.58	
o-Terphenyl	84-15-1	90	%	70-135	07.06.18 11.58	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW7**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-001	Date Collected:	06.26.18 14.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.05.18 13.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.05.18 13.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.05.18 13.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.05.18 13.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.05.18 13.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.05.18 13.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.05.18 13.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.05.18 13.12	
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.05.18 13.12	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW8** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-002 Date Collected: 06.26.18 14.20 Sample Depth:3 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.8**	4.95	mg/kg	07.03.18 11.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 12.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.06.18 12.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 12.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.06.18 12.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.06.18 12.58	
o-Terphenyl	84-15-1	95	%	70-135	07.06.18 12.58	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW8**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-002	Date Collected:	06.26.18 14.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.05.18 14.07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.05.18 14.07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.05.18 14.07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.05.18 14.07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.05.18 14.07	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.05.18 14.07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.05.18 14.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	129	%	70-130	07.05.18 14.07	
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.05.18 14.07	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW9** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-003 Date Collected: 06.26.18 14.25 Sample Depth:3 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**436**	5.00	mg/kg	07.03.18 12.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 13.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.06.18 13.18	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 13.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.06.18 13.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.06.18 13.18	
o-Terphenyl	84-15-1	94	%	70-135	07.06.18 13.18	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW9**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-003	Date Collected:	06.26.18 14.25	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.05.18 14.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.05.18 14.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.05.18 14.23	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.05.18 14.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.05.18 14.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.05.18 14.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.05.18 14.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	84	%	70-130	07.05.18 14.23	
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.05.18 14.23	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW10** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-004 Date Collected: 06.26.18 14.30 Sample Depth:3 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3280**	25.0	mg/kg	07.03.18 12.00		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 13.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	**84.3**	15.0	mg/kg	07.06.18 13.38		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 13.38	U	1
Total TPH	PHC635	**84.3**	15.0	mg/kg	07.06.18 13.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.06.18 13.38	
o-Terphenyl	84-15-1	95	%	70-135	07.06.18 13.38	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-004	Date Collected:	06.26.18 14.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.05.18 14.41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.05.18 14.41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.05.18 14.41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.05.18 14.41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.05.18 14.41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.05.18 14.41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.05.18 14.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	77	%	70-130	07.05.18 14.41	
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.05.18 14.41	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-005	Date Collected:	06.26.18 14.35	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1570**	25.0	mg/kg	07.03.18 12.05		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.06.18 10.00	Basis:	Wet Weight
Seq Number:	3055781				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 13.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.06.18 13.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 13.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.06.18 13.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	07.06.18 13.58	
o-Terphenyl	84-15-1	92	%	70-135	07.06.18 13.58	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-005	Date Collected:	06.26.18 14.35	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.05.18 15.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.05.18 15.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.05.18 15.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.05.18 15.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.05.18 15.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.05.18 15.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.05.18 15.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	118	%	70-130	07.05.18 15.00	
4-Bromofluorobenzene	460-00-4	92	%	70-130	07.05.18 15.00	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-006	Date Collected:	06.26.18 14.40	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1360**	25.0	mg/kg	07.03.18 12.27		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.06.18 10.00	Basis:	Wet Weight
Seq Number:	3055781				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 14.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**226**	15.0	mg/kg	07.06.18 14.18		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**16.8**	15.0	mg/kg	07.06.18 14.18		1
Total TPH	PHC635	**243**	15.0	mg/kg	07.06.18 14.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.06.18 14.18	
o-Terphenyl	84-15-1	100	%	70-135	07.06.18 14.18	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-006	Date Collected:	06.26.18 14.40	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.05.18 15.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.05.18 15.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.05.18 15.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.05.18 15.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.05.18 15.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.05.18 15.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.05.18 15.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.05.18 15.18	
4-Bromofluorobenzene	460-00-4	100	%	70-130	07.05.18 15.18	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW13** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-007 Date Collected: 06.26.18 14.45 Sample Depth:4 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**94.4**	4.95	mg/kg	07.03.18 12.32		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 14.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.06.18 14.38	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 14.38	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.06.18 14.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.06.18 14.38	
o-Terphenyl	84-15-1	88	%	70-135	07.06.18 14.38	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-007	Date Collected:	06.26.18 14.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.05.18 15.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.05.18 15.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.05.18 15.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.05.18 15.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.05.18 15.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.05.18 15.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.05.18 15.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	07.05.18 15.38	
4-Bromofluorobenzene	460-00-4	72	%	70-130	07.05.18 15.38	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW14** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-008 Date Collected: 06.26.18 14.50 Sample Depth:4 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**479**	4.95	mg/kg	07.03.18 12.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 14.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**62.2**	15.0	mg/kg	07.06.18 14.58		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 14.58	U	1
Total TPH	PHC635	**62.2**	15.0	mg/kg	07.06.18 14.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.06.18 14.58	
o-Terphenyl	84-15-1	85	%	70-135	07.06.18 14.58	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-008	Date Collected:	06.26.18 14.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.05.18 15.57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.05.18 15.57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.05.18 15.57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.05.18 15.57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.05.18 15.57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.05.18 15.57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.05.18 15.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	07.05.18 15.57	
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.05.18 15.57	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW15** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-009 Date Collected: 06.26.18 14.55 Sample Depth:4 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.8**	5.00	mg/kg	07.03.18 12.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.06.18 15.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**57.4**	14.9	mg/kg	07.06.18 15.18		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.06.18 15.18	U	1
Total TPH	PHC635	**57.4**	14.9	mg/kg	07.06.18 15.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.06.18 15.18	
o-Terphenyl	84-15-1	93	%	70-135	07.06.18 15.18	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-009	Date Collected:	06.26.18 14.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.06.18 11.30	Basis:	Wet Weight
Seq Number:	3055640				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.18 13.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.06.18 13.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.18 13.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.06.18 13.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.06.18 13.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.06.18 13.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.06.18 13.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	07.06.18 13.03	
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.06.18 13.03	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW16** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-010 Date Collected: 06.26.18 15.00 Sample Depth:4 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**158**	5.00	mg/kg	07.03.18 13.05		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.06.18 15.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	**36.2**	15.0	mg/kg	07.06.18 15.39		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.06.18 15.39	U	1
Total TPH	PHC635	**36.2**	15.0	mg/kg	07.06.18 15.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.06.18 15.39	
o-Terphenyl	84-15-1	93	%	70-135	07.06.18 15.39	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-010	Date Collected:	06.26.18 15.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.06.18 11.30	Basis:	Wet Weight
Seq Number:	3055640				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.06.18 13.21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.06.18 13.21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.06.18 13.21	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.06.18 13.21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.06.18 13.21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.06.18 13.21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.06.18 13.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	76	%	70-130	07.06.18 13.21	
4-Bromofluorobenzene	460-00-4	86	%	70-130	07.06.18 13.21	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id: **SW17** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590704-011 Date Collected: 06.26.18 15.05 Sample Depth:4 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**131**	4.98	mg/kg	07.03.18 13.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.06.18 10.00 Basis: Wet Weight

Seq Number: 3055781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**19.0**	15.0	mg/kg	07.06.18 16.39		1
Diesel Range Organics (DRO)	C10C28DRO	**1390**	15.0	mg/kg	07.06.18 16.39		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**45.9**	15.0	mg/kg	07.06.18 16.39		1
Total TPH	PHC635	**1450**	15.0	mg/kg	07.06.18 16.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.06.18 16.39	
o-Terphenyl	84-15-1	116	%	70-135	07.06.18 16.39	

Certificate of Analytical Results 590704

LT Environmental, Inc., Arvada, CO

PLU 320 H

Sample Id:	**SW17**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590704-011	Date Collected:	06.26.18 15.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.06.18 11.30	Basis:	Wet Weight
Seq Number:	3055640				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 14.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 14.15	U	1
Ethylbenzene	100-41-4	**0.00835**	0.00200	mg/kg	07.06.18 14.15		1
m,p-Xylenes	179601-23-1	**0.0228**	0.00401	mg/kg	07.06.18 14.15		1
o-Xylene	95-47-6	**0.0111**	0.00200	mg/kg	07.06.18 14.15		1
Total Xylenes	1330-20-7	**0.0339**	0.00200	mg/kg	07.06.18 14.15		1
Total BTEX		**0.0423**	0.00200	mg/kg	07.06.18 14.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	07.06.18 14.15	
1,4-Difluorobenzene	540-36-3	113	%	70-130	07.06.18 14.15	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 590704

LT Environmental, Inc.

PLU 320 H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3055446 — Matrix: Solid — Date Prep: 07.03.18
MB Sample Id: 7657778-1-BLK — LCS Sample Id: 7657778-1-BKS — LCSD Sample Id: 7657778-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	236	94	239	96	90-110	1	20	mg/kg	07.03.18 10:38	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3055446 — Matrix: Soil — Date Prep: 07.03.18
Parent Sample Id: 590702-006 — MS Sample Id: 590702-006 S — MSD Sample Id: 590702-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	244	250	484	96	483	96	90-110	0	20	mg/kg	07.03.18 11:00	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3055446 — Matrix: Soil — Date Prep: 07.03.18
Parent Sample Id: 590704-003 — MS Sample Id: 590704-003 S — MSD Sample Id: 590704-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	436	250	661	90	663	91	90-110	0	20	mg/kg	07.03.18 12:16	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3055781 — Matrix: Solid — Date Prep: 07.06.18
MB Sample Id: 7657983-1-BLK — LCS Sample Id: 7657983-1-BKS — LCSD Sample Id: 7657983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	940	94	943	94	70-135	0	20	mg/kg	07.06.18 11:18	
Diesel Range Organics (DRO)	<15.0	1000	963	96	961	96	70-135	0	20	mg/kg	07.06.18 11:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		115		115		70-135	%	07.06.18 11:18
o-Terphenyl	108		107		103		70-135	%	07.06.18 11:18

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

QC Summary 590704

LT Environmental, Inc.

PLU 320 H

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3055781 — Matrix: Soil — Date Prep: 07.06.18
Parent Sample Id: 590704-001 — MS Sample Id: 590704-001 S — MSD Sample Id: 590704-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	905	91	929	93	70-135	3	20	mg/kg	07.06.18 12:18	
Diesel Range Organics (DRO)	<15.0	1000	951	95	979	98	70-135	3	20	mg/kg	07.06.18 12:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		114		70-135	%	07.06.18 12:18
o-Terphenyl	96		99		70-135	%	07.06.18 12:18

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055548 — Matrix: Solid — Date Prep: 07.05.18
MB Sample Id: 7657860-1-BLK — LCS Sample Id: 7657860-1-BKS — LCSD Sample Id: 7657860-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0921	91	0.0988	98	70-130	7	35	mg/kg	07.05.18 08:01	
Toluene	<0.00201	0.101	0.0979	97	0.102	101	70-130	4	35	mg/kg	07.05.18 08:01	
Ethylbenzene	<0.00201	0.101	0.0946	94	0.101	100	70-130	7	35	mg/kg	07.05.18 08:01	
m,p-Xylenes	<0.00402	0.201	0.203	101	0.211	104	70-130	4	35	mg/kg	07.05.18 08:01	
o-Xylene	<0.00201	0.101	0.0951	94	0.0960	95	70-130	1	35	mg/kg	07.05.18 08:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		82		108		70-130	%	07.05.18 08:01
4-Bromofluorobenzene	74		77		95		70-130	%	07.05.18 08:01

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055640 — Matrix: Solid — Date Prep: 07.06.18
MB Sample Id: 7657902-1-BLK — LCS Sample Id: 7657902-1-BKS — LCSD Sample Id: 7657902-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0927	93	0.0849	84	70-130	9	35	mg/kg	07.06.18 10:53	
Toluene	<0.00200	0.100	0.0996	100	0.0891	88	70-130	11	35	mg/kg	07.06.18 10:53	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0868	86	70-130	9	35	mg/kg	07.06.18 10:53	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.182	90	70-130	7	35	mg/kg	07.06.18 10:53	
o-Xylene	<0.00200	0.100	0.0930	93	0.0845	84	70-130	10	35	mg/kg	07.06.18 10:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		94		86		70-130	%	07.06.18 10:53
4-Bromofluorobenzene	88		83		77		70-130	%	07.06.18 10:53

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

QC Summary 590704

LT Environmental, Inc.

PLU 320 H

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3055548
Matrix: Soil
Date Prep: 07.05.18
Parent Sample Id: 590701-001
MS Sample Id: 590701-001 S
MSD Sample Id: 590701-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0782	78	0.109	109	70-130	33	35	mg/kg	07.05.18 08:38	
Toluene	<0.00201	0.100	0.0812	81	0.116	116	70-130	35	35	mg/kg	07.05.18 08:38	
Ethylbenzene	<0.00201	0.100	0.0763	76	0.112	112	70-130	38	35	mg/kg	07.05.18 08:38	F
m,p-Xylenes	<0.00402	0.201	0.161	80	0.230	115	70-130	35	35	mg/kg	07.05.18 08:38	
o-Xylene	<0.00201	0.100	0.0793	79	0.102	102	70-130	25	35	mg/kg	07.05.18 08:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	127		93		70-130	%	07.05.18 08:38
4-Bromofluorobenzene	114		79		70-130	%	07.05.18 08:38

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3055640
Matrix: Soil
Date Prep: 07.06.18
Parent Sample Id: 590757-001
MS Sample Id: 590757-001 S
MSD Sample Id: 590757-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0869	87	0.0796	79	70-130	9	35	mg/kg	07.06.18 11:27	
Toluene	<0.00201	0.100	0.0862	86	0.0787	78	70-130	9	35	mg/kg	07.06.18 11:27	
Ethylbenzene	<0.00201	0.100	0.0824	82	0.0765	76	70-130	7	35	mg/kg	07.06.18 11:27	
m,p-Xylenes	<0.00402	0.201	0.174	87	0.157	78	70-130	10	35	mg/kg	07.06.18 11:27	
o-Xylene	<0.00201	0.100	0.0745	75	0.0760	75	70-130	2	35	mg/kg	07.06.18 11:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		94		70-130	%	07.06.18 11:27
4-Bromofluorobenzene	84		80		70-130	%	07.06.18 11:27

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 2

Xenco Quote #

Xenco Job # 590104

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian office
Company Address: 3300 N "A" St, Bldg 1, Unit 103 Midland, TX
Email: Abaker@ltenv.com
Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: PLU 320 H / 012918082
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-3769

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chlorids	Field Comments
1	SW7	3'	6-26-18	1415	Soil	1								X	X	X	X	
2	SW8	3'		1420														
3	SW9	3'		1425														
4	SW10	3'		1430														
5	SW11	3'		1435														
6	SW12	3'		1440														
7	SW13	4'		1445														
8	SW14	4'		1450														
9	SW15	4'		1455														
10	SW16	4'		1500														

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY ✓ Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking # 772584593635

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6-27-18 0930				
2					6/27 15:30	6/28/18
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. 3.2 Thermo. Corr. Factor 0.0

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

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Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

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CHAIN OF CUSTODY

Page 2 of 2

Xenco Quote #

Xenco Job # 590705 BA

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian office

Company Address: 3300 N "A" St, Bldg 1, Unit 103, Midland, TX

Email: Adrian Baker Phone No: 432-704-5178

Project Contact: Adrian Baker

Samplers's Name

Project Information

Project Name/Number: PLU 320 H / 012918082

Project Location: NM

Invoice To: XTO - Energy - Kyle Littrell

PO Number: 2RP-3769

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride
1	SW17	4'	6-26-18	1505	Soil	1								X	X	X	X
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

Field Comments

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY
- ✓ Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level III Std QC+ Forms
- ☐ Level 3 (CLP Forms)
- ☐ TRRP Checklist
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ TRRP Level IV
- ☐ UST / RG -411

Notes:

FED-EX / UPS: Tracking # 777584593635

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/27/18 1080				
2					6/27 15:30	
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						6/28/18 1010
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. 3.2 IR Thermo. Corr. Factor 0.0

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.


CUSTODY SEAL
Date
Signature


Thermo
SCIENTIFIC
90006

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06/28/2018 10:10:00 AM

Work Order #: 590704

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**N/A**
#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)?	**N/A**
#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: Brianna Teel Date: 06/28/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06/28/2018
Jessica Kramer

Analytical Report 590706

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU 320H

012918082

06-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

06-JUL-18

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

Reference: XENCO Report No(s): **590706**
PLU 320H
Project Address: NM

Adrian Baker:

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) 590706. 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. 590706 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS1	S	06-25-18 11:00	6 ft	590706-001
FS2	S	06-25-18 13:30	3 ft	590706-002
FS3	S	06-25-18 13:00	5 ft	590706-003
FS4	S	06-25-18 15:20	4.5 ft	590706-004
SW1	S	06-25-18 11:30	4 ft	590706-005
SW2	S	06-25-18 14:30	2 ft	590706-006
SW3	S	06-25-18 14:45	2 ft	590706-007
SW4	S	06-26-18 14:00	2 ft	590706-008
SW5	S	06-26-18 14:05	3 ft	590706-009
SW6	S	06-26-18 14:10	3 ft	590706-010

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 320H

Project ID: *012918082*
Work Order Number(s): *590706*

Report Date: *06-JUL-18*
Date Received: *06/28/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055565 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3055640 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 590706

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H

Project Id: 012918082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Thu Jun-28-18 10:10 am
Report Date: 06-JUL-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	590706-001		590706-002		590706-003		590706-004		590706-005		590706-006	
	Field Id:	FS1		FS2		FS3		FS4		SW1		SW2	
	Depth:	6- ft		3- ft		5- ft		4.5- ft		4- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-25-18 11:00		Jun-25-18 13:30		Jun-25-18 13:00		Jun-25-18 15:20		Jun-25-18 11:30		Jun-25-18 14:30	
BTEX by EPA 8021B	***Extracted:***	Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00	
	Analyzed:	Jul-06-18 06:49		Jul-06-18 07:07		Jul-06-18 07:25		Jul-06-18 08:12		Jul-06-18 08:30		Jul-06-18 08:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
m,p-Xylenes		<0.00402	0.00402	<0.00400	0.00400	<0.00399	0.00399	<0.00401	0.00401	<0.00403	0.00403	<0.00398	0.00398
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 09:30		Jul-03-18 10:45		Jul-03-18 10:45		Jul-03-18 10:45	
	Analyzed:	Jul-03-18 13:15		Jul-03-18 13:21		Jul-03-18 13:26		Jul-03-18 13:59		Jul-03-18 14:15		Jul-03-18 14:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		187	5.00	14.9	5.00	69.6	4.95	79.7	4.96	180	4.97	56.9	5.00
TPH by SW8015 Mod	***Extracted:***	Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00	
	Analyzed:	Jul-05-18 16:43		Jul-05-18 17:03		Jul-05-18 17:22		Jul-05-18 17:42		Jul-05-18 18:02		Jul-05-18 18:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 590706

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H

Project Id: 012918082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Thu Jun-28-18 10:10 am
Report Date: 06-JUL-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	590706-007		590706-008		590706-009		590706-010					
	Field Id:	SW3		SW4		SW5		SW6					
	Depth:	2- ft		2- ft		3- ft		3- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jun-25-18 14:45		Jun-26-18 14:00		Jun-26-18 14:05		Jun-26-18 14:10					
BTEX by EPA 8021B	***Extracted:***	Jul-05-18 16:00		Jul-05-18 16:00		Jul-05-18 16:00		Jul-06-18 11:30					
	Analyzed:	Jul-06-18 09:06		Jul-06-18 09:24		Jul-06-18 07:56		Jul-06-18 13:39					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Inorganic Anions by EPA 300	***Extracted:***	Jul-03-18 10:45		Jul-03-18 10:45		Jul-03-18 10:45		Jul-03-18 10:45					
	Analyzed:	Jul-03-18 14:26		Jul-03-18 14:31		Jul-03-18 14:47		Jul-03-18 15:14					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		73.7	5.00	87.3	4.96	11.4	4.99	80.2	4.97				
TPH by SW8015 Mod	***Extracted:***	Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00		Jul-05-18 08:00					
	Analyzed:	Jul-05-18 18:42		Jul-05-18 19:02		Jul-05-18 19:22		Jul-05-18 19:41					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0	1520	15.0	<14.9	14.9	<15.0	15.0				
Oil Range Hydrocarbons (ORO)		<15.0	15.0	34.7	15.0	<14.9	14.9	<15.0	15.0				
Total TPH		<15.0	15.0	1550	15.0	<14.9	14.9	<15.0	15.0				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**FS1**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-001	Date Collected:	06.25.18 11.00	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**187**	5.00	mg/kg	07.03.18 13.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 16.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 16.43	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 16.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 16.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.05.18 16.43	
o-Terphenyl	84-15-1	96	%	70-135	07.05.18 16.43	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**FS1**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-001	Date Collected:	06.25.18 11.00	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.06.18 06.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.06.18 06.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.06.18 06.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.06.18 06.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.06.18 06.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.06.18 06.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.06.18 06.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.06.18 06.49	
4-Bromofluorobenzene	460-00-4	97	%	70-130	07.06.18 06.49	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**FS2**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-002	Date Collected:	06.25.18 13.30	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 09.30	Basis:	Wet Weight
Seq Number:	3055446				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.9**	5.00	mg/kg	07.03.18 13.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 17.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 17.03	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 17.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 17.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.05.18 17.03	
o-Terphenyl	84-15-1	95	%	70-135	07.05.18 17.03	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**FS2**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-002	Date Collected:	06.25.18 13.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 07.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 07.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 07.07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.06.18 07.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 07.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 07.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 07.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	07.06.18 07.07	
1,4-Difluorobenzene	540-36-3	86	%	70-130	07.06.18 07.07	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id: **FS3** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590706-003 Date Collected: 06.25.18 13.00 Sample Depth: 5 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 09.30 Basis: Wet Weight

Seq Number: 3055446

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.6**	4.95	mg/kg	07.03.18 13.26		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.05.18 08.00 Basis: Wet Weight

Seq Number: 3055653

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 17.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 17.22	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 17.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 17.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.05.18 17.22	
o-Terphenyl	84-15-1	93	%	70-135	07.05.18 17.22	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**FS3**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-003	Date Collected:	06.25.18 13.00	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 07.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 07.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 07.25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.06.18 07.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 07.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 07.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 07.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.06.18 07.25	
4-Bromofluorobenzene	460-00-4	116	%	70-130	07.06.18 07.25	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**FS4**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-004	Date Collected:	06.25.18 15.20	Sample Depth:	4.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 10.45	Basis:	Wet Weight
Seq Number:	3055450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**79.7**	4.96	mg/kg	07.03.18 13.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 17.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 17.42	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 17.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 17.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.05.18 17.42	
o-Terphenyl	84-15-1	98	%	70-135	07.05.18 17.42	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**FS4**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-004	Date Collected:	06.25.18 15.20	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 08.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 08.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 08.12	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.06.18 08.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 08.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 08.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 08.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	129	%	70-130	07.06.18 08.12	
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.06.18 08.12	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id: **SW1** Matrix: Soil Date Received:06.28.18 10.10

Lab Sample Id: 590706-005 Date Collected: 06.25.18 11.30 Sample Depth: 4 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 07.03.18 10.45 Basis: Wet Weight

Seq Number: 3055450

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**180**	4.97	mg/kg	07.03.18 14.15		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 07.05.18 08.00 Basis: Wet Weight

Seq Number: 3055653

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 18.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 18.02	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 18.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 18.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.05.18 18.02	
o-Terphenyl	84-15-1	98	%	70-135	07.05.18 18.02	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW1**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-005	Date Collected:	06.25.18 11.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.06.18 08.30	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.06.18 08.30	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.06.18 08.30	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.06.18 08.30	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.06.18 08.30	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.06.18 08.30	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.06.18 08.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.06.18 08.30	
1,4-Difluorobenzene	540-36-3	120	%	70-130	07.06.18 08.30	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW2**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-006	Date Collected:	06.25.18 14.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 10.45	Basis:	Wet Weight
Seq Number:	3055450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.9**	5.00	mg/kg	07.03.18 14.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.18 18.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.05.18 18.22	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.05.18 18.22	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.05.18 18.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.05.18 18.22	
o-Terphenyl	84-15-1	92	%	70-135	07.05.18 18.22	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW2**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-006	Date Collected:	06.25.18 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.18 08.48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.06.18 08.48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.18 08.48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.06.18 08.48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.06.18 08.48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.06.18 08.48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.06.18 08.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	82	%	70-130	07.06.18 08.48	
1,4-Difluorobenzene	540-36-3	77	%	70-130	07.06.18 08.48	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW3**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-007	Date Collected:	06.25.18 14.45	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 10.45	Basis:	Wet Weight
Seq Number:	3055450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**73.7**	5.00	mg/kg	07.03.18 14.26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 18.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 18.42	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 18.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 18.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.05.18 18.42	
o-Terphenyl	84-15-1	93	%	70-135	07.05.18 18.42	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW3**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-007	Date Collected:	06.25.18 14.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 09.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 09.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 09.06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.06.18 09.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 09.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 09.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 09.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	07.06.18 09.06	
1,4-Difluorobenzene	540-36-3	84	%	70-130	07.06.18 09.06	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW4**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-008	Date Collected:	06.26.18 14.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 10.45	Basis:	Wet Weight
Seq Number:	3055450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**87.3**	4.96	mg/kg	07.03.18 14.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 19.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1520**	15.0	mg/kg	07.05.18 19.02		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**34.7**	15.0	mg/kg	07.05.18 19.02		1
Total TPH	PHC635	**1550**	15.0	mg/kg	07.05.18 19.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.05.18 19.02	
o-Terphenyl	84-15-1	122	%	70-135	07.05.18 19.02	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW4**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-008	Date Collected:	06.26.18 14.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.18 09.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.18 09.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.18 09.24	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.06.18 09.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.18 09.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.18 09.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.18 09.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.06.18 09.24	
4-Bromofluorobenzene	460-00-4	83	%	70-130	07.06.18 09.24	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW5**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-009	Date Collected:	06.26.18 14.05	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 10.45	Basis:	Wet Weight
Seq Number:	3055450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.4**	4.99	mg/kg	07.03.18 14.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.18 19.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.05.18 19.22	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.05.18 19.22	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.05.18 19.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.05.18 19.22	
o-Terphenyl	84-15-1	94	%	70-135	07.05.18 19.22	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW5**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-009	Date Collected:	06.26.18 14.05	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.05.18 16.00	Basis:	Wet Weight
Seq Number:	3055565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.06.18 07.56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.06.18 07.56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.06.18 07.56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.06.18 07.56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.06.18 07.56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.06.18 07.56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.06.18 07.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	07.06.18 07.56	
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.06.18 07.56	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW6**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-010	Date Collected:	06.26.18 14.10	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.03.18 10.45	Basis:	Wet Weight
Seq Number:	3055450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**80.2**	4.97	mg/kg	07.03.18 15.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.18 08.00	Basis:	Wet Weight
Seq Number:	3055653				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.18 19.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.18 19.41	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.18 19.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.18 19.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.05.18 19.41	
o-Terphenyl	84-15-1	92	%	70-135	07.05.18 19.41	

Certificate of Analytical Results 590706

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SW6**	Matrix:	Soil	Date Received:	06.28.18 10.10
Lab Sample Id:	590706-010	Date Collected:	06.26.18 14.10	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.06.18 11.30	Basis:	Wet Weight
Seq Number:	3055640				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.18 13.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.06.18 13.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.18 13.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.06.18 13.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.06.18 13.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.06.18 13.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.06.18 13.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	72	%	70-130	07.06.18 13.39	
1,4-Difluorobenzene	540-36-3	88	%	70-130	07.06.18 13.39	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 590706

LT Environmental, Inc.

PLU 320H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055446 Matrix: Solid Date Prep: 07.03.18
MB Sample Id: 7657778-1-BLK LCS Sample Id: 7657778-1-BKS LCSD Sample Id: 7657778-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	236	94	239	96	90-110	1	20	mg/kg	07.03.18 10:38	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055450 Matrix: Solid Date Prep: 07.03.18
MB Sample Id: 7657779-1-BLK LCS Sample Id: 7657779-1-BKS LCSD Sample Id: 7657779-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	235	94	236	94	90-110	0	20	mg/kg	07.03.18 13:48	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055446 Matrix: Soil Date Prep: 07.03.18
Parent Sample Id: 590702-006 MS Sample Id: 590702-006 S MSD Sample Id: 590702-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	244	250	484	96	483	96	90-110	0	20	mg/kg	07.03.18 11:00	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055446 Matrix: Soil Date Prep: 07.03.18
Parent Sample Id: 590704-003 MS Sample Id: 590704-003 S MSD Sample Id: 590704-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	436	250	661	90	663	91	90-110	0	20	mg/kg	07.03.18 12:16	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055450 Matrix: Soil Date Prep: 07.03.18
Parent Sample Id: 590706-004 MS Sample Id: 590706-004 S MSD Sample Id: 590706-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	79.7	248	328	100	329	101	90-110	0	20	mg/kg	07.03.18 14:04	

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

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

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

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

Final 1.000

QC Summary 590706

LT Environmental, Inc.

PLU 320H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055450 Matrix: Soil Date Prep: 07.03.18
Parent Sample Id: 590706-010 MS Sample Id: 590706-010 S MSD Sample Id: 590706-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	80.2	249	327	99	328	100	90-110	0	20	mg/kg	07.03.18 15:20	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3055653 Matrix: Solid Date Prep: 07.05.18
MB Sample Id: 7657920-1-BLK LCS Sample Id: 7657920-1-BKS LCSD Sample Id: 7657920-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	937	94	992	99	70-135	6	20	mg/kg	07.05.18 11:29	
Diesel Range Organics (DRO)	<15.0	1000	958	96	1020	102	70-135	6	20	mg/kg	07.05.18 11:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		117		123		70-135	%	07.05.18 11:29
o-Terphenyl	107		105		114		70-135	%	07.05.18 11:29

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3055653 Matrix: Soil Date Prep: 07.05.18
Parent Sample Id: 590702-001 MS Sample Id: 590702-001 S MSD Sample Id: 590702-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	932	93	959	96	70-135	3	20	mg/kg	07.05.18 12:27	
Diesel Range Organics (DRO)	32.8	999	1020	99	1060	103	70-135	4	20	mg/kg	07.05.18 12:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		118		70-135	%	07.05.18 12:27
o-Terphenyl	102		104		70-135	%	07.05.18 12:27

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

QC Summary 590706

LT Environmental, Inc.

PLU 320H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055565 — Matrix: Solid — Date Prep: 07.05.18
MB Sample Id: 7657885-1-BLK — LCS Sample Id: 7657885-1-BKS — LCSD Sample Id: 7657885-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0852	85	0.0933	92	70-130	9	35	mg/kg	07.06.18 01:35	
Toluene	<0.00201	0.100	0.0820	82	0.0953	94	70-130	15	35	mg/kg	07.06.18 01:35	
Ethylbenzene	<0.00201	0.100	0.0813	81	0.0940	93	70-130	14	35	mg/kg	07.06.18 01:35	
m,p-Xylenes	<0.00402	0.201	0.168	84	0.194	96	70-130	14	35	mg/kg	07.06.18 01:35	
o-Xylene	<0.00201	0.100	0.0820	82	0.0921	91	70-130	12	35	mg/kg	07.06.18 01:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		77		88		70-130	%	07.06.18 01:35
4-Bromofluorobenzene	86		73		95		70-130	%	07.06.18 01:35

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055640 — Matrix: Solid — Date Prep: 07.06.18
MB Sample Id: 7657902-1-BLK — LCS Sample Id: 7657902-1-BKS — LCSD Sample Id: 7657902-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0927	93	0.0849	84	70-130	9	35	mg/kg	07.06.18 10:53	
Toluene	<0.00200	0.100	0.0996	100	0.0891	88	70-130	11	35	mg/kg	07.06.18 10:53	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0868	86	70-130	9	35	mg/kg	07.06.18 10:53	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.182	90	70-130	7	35	mg/kg	07.06.18 10:53	
o-Xylene	<0.00200	0.100	0.0930	93	0.0845	84	70-130	10	35	mg/kg	07.06.18 10:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		94		86		70-130	%	07.06.18 10:53
4-Bromofluorobenzene	88		83		77		70-130	%	07.06.18 10:53

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055565 — Matrix: Soil — Date Prep: 07.05.18
Parent Sample Id: 590702-001 — MS Sample Id: 590702-001 S — MSD Sample Id: 590702-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0823	83	0.0904	90	70-130	9	35	mg/kg	07.06.18 02:11	
Toluene	<0.00199	0.0996	0.0836	84	0.0927	93	70-130	10	35	mg/kg	07.06.18 02:11	
Ethylbenzene	<0.00199	0.0996	0.0797	80	0.0890	89	70-130	11	35	mg/kg	07.06.18 02:11	
m,p-Xylenes	<0.00398	0.199	0.163	82	0.179	90	70-130	9	35	mg/kg	07.06.18 02:11	
o-Xylene	<0.00199	0.0996	0.0742	74	0.0852	85	70-130	14	35	mg/kg	07.06.18 02:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		124		70-130	%	07.06.18 02:11
4-Bromofluorobenzene	91		102		70-130	%	07.06.18 02:11

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

QC Summary 590706

LT Environmental, Inc.

PLU 320H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3055640 Matrix: Soil Date Prep: 07.06.18

Parent Sample Id: 590757-001 MS Sample Id: 590757-001 S MSD Sample Id: 590757-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0869	87	0.0796	79	70-130	9	35	mg/kg	07.06.18 11:27	
Toluene	<0.00201	0.100	0.0862	86	0.0787	78	70-130	9	35	mg/kg	07.06.18 11:27	
Ethylbenzene	<0.00201	0.100	0.0824	82	0.0765	76	70-130	7	35	mg/kg	07.06.18 11:27	
m,p-Xylenes	<0.00402	0.201	0.174	87	0.157	78	70-130	10	35	mg/kg	07.06.18 11:27	
o-Xylene	<0.00201	0.100	0.0745	75	0.0760	75	70-130	2	35	mg/kg	07.06.18 11:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		94		70-130	%	07.06.18 11:27
4-Bromofluorobenzene	84		80		70-130	%	07.06.18 11:27

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES
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Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote #: | Xenco Job #: 590704

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian Office
Company Address: 3300 N "A" St, Bld 1, Unit 103 Midland, TX
Email: Abaker@ltenvicom | Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: [signature] = Daniel Thomas

Project Information

Project Name/Number: PLU 320 H / 01291808Z
Project Location: NM
Invoice To: XTO - Energy - Kyle Littrell
PO Number: 2RP-3769

Analytical Information

BTEX
TPH
Chlorides

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	FS1	6'	6-25-18	1100	Soil	1								✓	
2	FS2	3'		1330											
3	FS3	5'		1300											
4	FS4	4.5'		1520											
5	BW1	4'		1130											
6	SW2	2'		1430											
7	SW3	2'		1445											
8	SW4	2'	6-26-18	1400											
9	SW5	3'		1405											
10	SW6	3'		1410											

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY ✓ Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking # 777584593635

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	[signature]	6-27-18 0980	[signature]	[signature]	6/27 15:30	[signature]
2						
3						
4						
5						

Custody Seal # | Preserved where applicable | On Ice: X | Cooler Temp. 3.2 R2 | Thermo. Corr. Factor 0.0

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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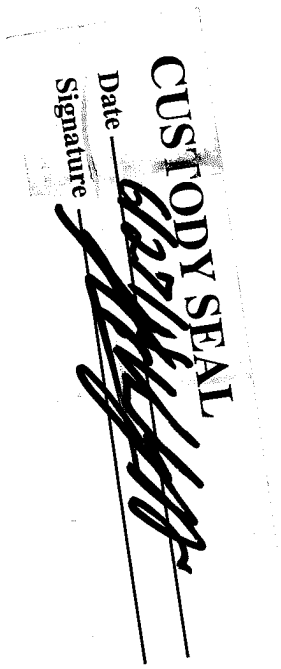
CUSTODY SEAL
Date
Signature


Thermo
SCIENTIFIC
9000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06/28/2018 10:10:00 AM

Work Order #: 590706

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**N/A**
#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)?	**N/A**
#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: Brianna Teel Date: 06/28/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06/28/2018
Jessica Kramer

Analytical Report 578592

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU #320 2RP-3788

14-MAR-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

14-MAR-18

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

Reference: XENCO Report No(s): **578592**
PLU #320 2RP-3788
Project Address: NM

Adrian Baker:

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) 578592. 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. 578592 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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Sample Cross Reference 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	03-06-18 10:45	6 In	578592-001
SS2	S	03-06-18 10:55	6 In	578592-002
SS3	S	03-06-18 11:05	6 In	578592-003
SS4	S	03-06-18 11:15	6 In	578592-004
SS5	S	03-06-18 11:25	6 In	578592-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU #320 2RP-3788

Project ID:
Work Order Number(s): *578592*

Report Date: *14-MAR-18*
Date Received: *03/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3043356 BTEX by EPA 8021B
m,p-Xylenes Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 578592-001, -002, -003
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 578592-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 578592-001, -002, -003.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3043357 BTEX by EPA 8021B
Lab Sample ID 578592-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 578592-004, -005.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 578592

LT Environmental, Inc., Arvada, CO

Project Name: PLU #320 2RP-3788

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Wed Mar-07-18 03:08 pm
Report Date: 14-MAR-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	578592-001		578592-002		578592-003		578592-004		578592-005	
	Field Id:	SS1		SS2		SS3		SS4		SS5	
	Depth:	6- In		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-06-18 10:45		Mar-06-18 10:55		Mar-06-18 11:05		Mar-06-18 11:15		Mar-06-18 11:25	
BTEX by EPA 8021B	***Extracted:***	Mar-10-18 12:00		Mar-10-18 12:00		Mar-10-18 12:00		Mar-10-18 12:15		Mar-10-18 12:15	
	Analyzed:	Mar-10-18 16:00		Mar-10-18 16:19		Mar-10-18 16:38		Mar-11-18 09:05		Mar-11-18 10:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00403	0.00403	<0.00402	0.00402	<0.00398	0.00398	<0.00402	0.00402	<0.00399	0.00399
o-Xylene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Mar-12-18 15:00		Mar-12-18 15:00		Mar-12-18 15:00		Mar-12-18 15:00		Mar-12-18 15:00	
	Analyzed:	Mar-13-18 18:28		Mar-13-18 18:33		Mar-13-18 18:39		Mar-13-18 18:44		Mar-13-18 18:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2590	25.0	1040	24.8	21300	248	693	4.99	343	4.97
TPH by SW8015 Mod	***Extracted:***	Mar-10-18 16:00		Mar-10-18 16:00		Mar-10-18 16:00		Mar-10-18 16:00		Mar-10-18 16:00	
	Analyzed:	Mar-12-18 08:23		Mar-12-18 09:03		Mar-12-18 09:23		Mar-12-18 09:43		Mar-12-18 10:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<74.9	74.9	<74.9	74.9	<74.9	74.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		7250	74.9	11600	74.9	3570	74.9	255	15.0	381	15.0
Oil Range Hydrocarbons (ORO)		1710	74.9	2710	74.9	544	74.9	96.6	15.0	105	15.0
Total TPH		8960	74.9	14300	74.9	4110	74.9	352	15.0	486	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-001	Date Collected:	03.06.18 10.45	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2590**	25.0	mg/kg	03.13.18 18.28		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<74.9	74.9	mg/kg	03.12.18 08.23	U	5
Diesel Range Organics (DRO)	C10C28DRO	**7250**	74.9	mg/kg	03.12.18 08.23		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**1710**	74.9	mg/kg	03.12.18 08.23		5
Total TPH	PHC635	**8960**	74.9	mg/kg	03.12.18 08.23		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	03.12.18 08.23	
o-Terphenyl	84-15-1	88	%	70-135	03.12.18 08.23	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-001	Date Collected:	03.06.18 10.45	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.00	Basis:	Wet Weight
Seq Number:	3043356				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.10.18 16.00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.10.18 16.00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.10.18 16.00	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.10.18 16.00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.10.18 16.00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.10.18 16.00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.10.18 16.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	03.10.18 16.00	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.10.18 16.00	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-002	Date Collected:	03.06.18 10.55	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1040**	24.8	mg/kg	03.13.18 18.33		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<74.9	74.9	mg/kg	03.12.18 09.03	U	5
Diesel Range Organics (DRO)	C10C28DRO	**11600**	74.9	mg/kg	03.12.18 09.03		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**2710**	74.9	mg/kg	03.12.18 09.03		5
Total TPH	PHC635	**14300**	74.9	mg/kg	03.12.18 09.03		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	03.12.18 09.03	
o-Terphenyl	84-15-1	86	%	70-135	03.12.18 09.03	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-002	Date Collected:	03.06.18 10.55	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.00	Basis:	Wet Weight
Seq Number:	3043356				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.10.18 16.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.10.18 16.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.10.18 16.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.10.18 16.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.10.18 16.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.10.18 16.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.10.18 16.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	71	%	70-130	03.10.18 16.19	
4-Bromofluorobenzene	460-00-4	73	%	70-130	03.10.18 16.19	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-003	Date Collected:	03.06.18 11.05	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21300**	248	mg/kg	03.13.18 18.39		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<74.9	74.9	mg/kg	03.12.18 09.23	U	5
Diesel Range Organics (DRO)	C10C28DRO	**3570**	74.9	mg/kg	03.12.18 09.23		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**544**	74.9	mg/kg	03.12.18 09.23		5
Total TPH	PHC635	**4110**	74.9	mg/kg	03.12.18 09.23		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	03.12.18 09.23	
o-Terphenyl	84-15-1	81	%	70-135	03.12.18 09.23	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-003	Date Collected:	03.06.18 11.05	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.00	Basis:	Wet Weight
Seq Number:	3043356				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.10.18 16.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.10.18 16.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.10.18 16.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.10.18 16.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.10.18 16.38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.10.18 16.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.10.18 16.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	70-130	03.10.18 16.38	
1,4-Difluorobenzene	540-36-3	74	%	70-130	03.10.18 16.38	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-004	Date Collected:	03.06.18 11.15	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**693**	4.99	mg/kg	03.13.18 18.44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.12.18 09.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	**255**	15.0	mg/kg	03.12.18 09.43		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**96.6**	15.0	mg/kg	03.12.18 09.43		1
Total TPH	PHC635	**352**	15.0	mg/kg	03.12.18 09.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.12.18 09.43	
o-Terphenyl	84-15-1	96	%	70-135	03.12.18 09.43	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-004	Date Collected:	03.06.18 11.15	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.15	Basis:	Wet Weight
Seq Number:	3043357				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.11.18 09.05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.11.18 09.05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.11.18 09.05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.11.18 09.05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.11.18 09.05	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.11.18 09.05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.11.18 09.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	83	%	70-130	03.11.18 09.05	
4-Bromofluorobenzene	460-00-4	104	%	70-130	03.11.18 09.05	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-005	Date Collected:	03.06.18 11.25	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 15.00	Basis:	Wet Weight
Seq Number:	3043628				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**343**	4.97	mg/kg	03.13.18 18.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 16.00	Basis:	Wet Weight
Seq Number:	3043517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.12.18 10.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**381**	15.0	mg/kg	03.12.18 10.03		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**105**	15.0	mg/kg	03.12.18 10.03		1
Total TPH	PHC635	**486**	15.0	mg/kg	03.12.18 10.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	03.12.18 10.03	
o-Terphenyl	84-15-1	78	%	70-135	03.12.18 10.03	

Certificate of Analytical Results 578592

LT Environmental, Inc., Arvada, CO

PLU #320 2RP-3788

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578592-005	Date Collected:	03.06.18 11.25	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.10.18 12.15	Basis:	Wet Weight
Seq Number:	3043357				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.18 10.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.18 10.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.18 10.03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.11.18 10.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.18 10.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.18 10.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.18 10.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	03.11.18 10.03	
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.11.18 10.03	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 578592

LT Environmental, Inc.

PLU #320 2RP-3788

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3043628 — Matrix: Solid — Date Prep: 03.12.18
MB Sample Id: 7640640-1-BLK — LCS Sample Id: 7640640-1-BKS — LCSD Sample Id: 7640640-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	240	96	254	102	90-110	6	20	mg/kg	03.13.18 07:33	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3043628 — Matrix: Soil — Date Prep: 03.12.18
Parent Sample Id: 578591-004 — MS Sample Id: 578591-004 S — MSD Sample Id: 578591-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	270	247	533	106	529	105	90-110	1	20	mg/kg	03.13.18 08:00	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3043628 — Matrix: Soil — Date Prep: 03.12.18
Parent Sample Id: 578593-001 — MS Sample Id: 578593-001 S — MSD Sample Id: 578593-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	263	105	261	104	90-110	1	20	mg/kg	03.13.18 19:00	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3043517 — Matrix: Solid — Date Prep: 03.10.18
MB Sample Id: 7640555-1-BLK — LCS Sample Id: 7640555-1-BKS — LCSD Sample Id: 7640555-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	939	94	1050	105	70-135	11	35	mg/kg	03.11.18 11:45	
Diesel Range Organics (DRO)	<15.0	1000	830	83	930	93	70-135	11	35	mg/kg	03.11.18 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		85		107		70-135	%	03.11.18 11:45
o-Terphenyl	91		85		99		70-135	%	03.11.18 11:45

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
E = MSD/LCSD Result

QC Summary 578592

LT Environmental, Inc.

PLU #320 2RP-3788

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3043517 | Matrix: Soil | Date Prep: 03.10.18
Parent Sample Id: 578121-001 | MS Sample Id: 578121-001 S | MSD Sample Id: 578121-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	893	89	877	88	70-135	2	35	mg/kg	03.11.18 12:49	
Diesel Range Organics (DRO)	31.1	999	802	77	801	77	70-135	0	35	mg/kg	03.11.18 12:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		96		70-135	%	03.11.18 12:49
o-Terphenyl	84		81		70-135	%	03.11.18 12:49

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3043356 | Matrix: Solid | Date Prep: 03.10.18
MB Sample Id: 7640532-1-BLK | LCS Sample Id: 7640532-1-BKS | LCSD Sample Id: 7640532-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0902	90	0.0860	86	70-130	5	35	mg/kg	03.10.18 12:07	
Toluene	<0.00200	0.0998	0.0963	96	0.0922	92	70-130	4	35	mg/kg	03.10.18 12:07	
Ethylbenzene	<0.00200	0.0998	0.110	110	0.105	105	70-130	5	35	mg/kg	03.10.18 12:07	
m,p-Xylenes	<0.00399	0.200	0.217	109	0.207	104	70-130	5	35	mg/kg	03.10.18 12:07	
o-Xylene	<0.00200	0.0998	0.106	106	0.101	101	70-130	5	35	mg/kg	03.10.18 12:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		92		86		70-130	%	03.10.18 12:07
4-Bromofluorobenzene	106		110		113		70-130	%	03.10.18 12:07

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3043357 | Matrix: Solid | Date Prep: 03.10.18
MB Sample Id: 7640559-1-BLK | LCS Sample Id: 7640559-1-BKS | LCSD Sample Id: 7640559-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0790	78	0.0735	74	70-130	7	35	mg/kg	03.10.18 22:25	
Toluene	<0.00202	0.101	0.0845	84	0.0783	78	70-130	8	35	mg/kg	03.10.18 22:25	
Ethylbenzene	<0.00202	0.101	0.0942	93	0.0897	90	70-130	5	35	mg/kg	03.10.18 22:25	
m,p-Xylenes	<0.00403	0.202	0.185	92	0.178	89	70-130	4	35	mg/kg	03.10.18 22:25	
o-Xylene	<0.00202	0.101	0.0937	93	0.0910	91	70-130	3	35	mg/kg	03.10.18 22:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		88		90		70-130	%	03.10.18 22:25
4-Bromofluorobenzene	98		114		111		70-130	%	03.10.18 22:25

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

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

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

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

QC Summary 578592

LT Environmental, Inc.

PLU #320 2RP-3788

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043356 Matrix: Soil Date Prep: 03.10.18
Parent Sample Id: 578592-001 MS Sample Id: 578592-001 S MSD Sample Id: 578592-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0443	44	0.0412	41	70-130	7	35	mg/kg	03.10.18 12:46	X
Toluene	<0.00202	0.101	0.0382	38	0.0279	28	70-130	31	35	mg/kg	03.10.18 12:46	X
Ethylbenzene	<0.00202	0.101	0.0304	30	0.0219	22	70-130	33	35	mg/kg	03.10.18 12:46	X
m,p-Xylenes	<0.00404	0.202	0.0650	32	0.0364	18	70-130	56	35	mg/kg	03.10.18 12:46	XF
o-Xylene	<0.00202	0.101	0.0301	30	0.0221	22	70-130	31	35	mg/kg	03.10.18 12:46	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	77		110		70-130	%	03.10.18 12:46
4-Bromofluorobenzene	72		116		70-130	%	03.10.18 12:46

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043357 Matrix: Soil Date Prep: 03.10.18
Parent Sample Id: 578592-004 MS Sample Id: 578592-004 S MSD Sample Id: 578592-004 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	0.0663	66	0.0629	63	70-130	5	35	mg/kg	03.10.18 23:03	X
Toluene	<0.00200	0.100	0.0526	53	0.0525	53	70-130	0	35	mg/kg	03.10.18 23:03	X
Ethylbenzene	<0.00200	0.100	0.0272	27	0.0384	38	70-130	34	35	mg/kg	03.10.18 23:03	X
m,p-Xylenes	<0.00401	0.200	0.0530	27	0.0707	35	70-130	29	35	mg/kg	03.10.18 23:03	X
o-Xylene	<0.00200	0.100	0.0283	28	0.0372	37	70-130	27	35	mg/kg	03.10.18 23:03	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		92		70-130	%	03.10.18 23:03
4-Bromofluorobenzene	103		106		70-130	%	03.10.18 23:03

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

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

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES
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Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote #

Xenco Job # 578592

Client / Reporting Information

Company Name / Branch: LTE/Permian
Company Address: 3300 N. A Street Bldg 1 Suite 103 Midland TX 79705
Email: abaker@ltenv.com
Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name

Project Information

Project Name/Number: PLU #320 2RP-3788
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 30-015-39810

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA Method 8021	TPH EPA Method 8015 (DRO GRO MRO)	Chloride EPA Method 300.1	Field Comments
1	SS1	6"	3/6/18	1045	S	1									X	X	X	
2	SS2	↓	↓	1055	↓	↓									X	X	X	
3	SS3			1105											X	X	X	
4	SS4			1115											X	X	X	
5	SS5	↓	↓	1125	↓	↓								↓	X	X	X	
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- Same Day TAT
- 5 Day TAT
- Next Day EMERGENCY
- 7 Day TAT
- 2 Day EMERGENCY
- Contract TAT
- 3 Day EMERGENCY
- Std turn around

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- Level II Std QC
- Level IV (Full Data Pkg /raw data)
- Level III Std QC+ Forms
- TRRP Level IV
- Level 3 (CLP Forms)
- UST / RG -411
- TRRP Checklist

Temp: 2.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 2.4

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler / by	Date Time	Received By	Relinquished By	Date Time	Received By
1	EW Cobb	3/6/18 1530			3/6/18 1930	
2						
3		3/7 14:30			3-7-18 15:50	
4				Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
5						

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03/07/2018 03:08:00 PM

Work Order #: 578592

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

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Connie Hernandez Date: 03/08/2018

Checklist reviewed by: Jessica Kramer Date: 03/08/2018

Jessica Kramer

18-JUL-18

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

Reference: XENCO Report No(s): **591024**
PLU 320H
Project Address: NM

Adrian Baker:

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) 591024. 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. 591024 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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Sample Cross Reference 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1A	S	06-27-18 14:00	3 ft	591024-001
SS2A	S	06-27-18 14:15	2 ft	591024-002
SS3A	S	06-28-18 13:30	1 ft	591024-003
SS4A	S	06-27-18 14:30	2 ft	591024-004
SS6	S	06-28-18 13:35	1 ft	591024-005
SS7	S	06-28-18 13:40	1 ft	591024-006
SS8	S	06-28-18 13:45	1 ft	591024-007
SS9	S	06-28-18 13:50	2 ft	591024-008
SS10	S	06-28-18 13:55	2 ft	591024-009
SS11	S	06-28-18 14:00	2 ft	591024-010
SS12	S	06-28-18 14:05	2 ft	591024-011
SS13	S	06-28-18 14:10	2 ft	591024-012
SS14	S	06-28-18 14:15	1 ft	591024-013
SS15	S	06-28-18 14:20	6 ft	591024-014

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 320H

Project ID: *012918082*
Work Order Number(s): *591024*

Report Date: *18-JUL-18*
Date Received: *07/02/2018*

Sample receipt non conformances and comments:

Per clients email, corrected sample date/time for sample 004 from 06/28/18 1430 to 06/27/18 1430 JKR 07/18/18. NEW VERSION GENERATED

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055790 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3055793 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3055798 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 591024

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H

Project Id: 012918082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Mon Jul-02-18 09:00 am
Report Date: 18-JUL-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	591024-001		591024-002		591024-003		591024-004		591024-005		591024-006	
	Field Id:	SS1A		SS2A		SS3A		SS4A		SS6		SS7	
	Depth:	3- ft		2- ft		1- ft		2- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-27-18 14:00		Jun-27-18 14:15		Jun-28-18 13:30		Jun-27-18 14:30		Jun-28-18 13:35		Jun-28-18 13:40	
BTEX by EPA 8021B	***Extracted:***	Jul-07-18 07:45		Jul-07-18 07:45		Jul-07-18 07:45		Jul-08-18 08:00		Jul-08-18 08:00		Jul-07-18 07:45	
	Analyzed:	Jul-07-18 21:40		Jul-07-18 21:58		Jul-07-18 22:16		Jul-08-18 11:20		Jul-08-18 11:38		Jul-07-18 23:10	
	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	<0.00200	0.00200	<0.00337	0.00337	<0.00332	0.00332	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00337	0.00337	<0.00332	0.00332	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00337	0.00337	<0.00332	0.00332	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00397	0.00397	<0.00399	0.00399	<0.00673	0.00673	<0.00664	0.00664	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00337	0.00337	<0.00332	0.00332	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00337	0.00337	<0.00332	0.00332	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00337	0.00337	<0.00332	0.00332	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45	
	Analyzed:	Jul-06-18 18:40		Jul-06-18 18:46		Jul-06-18 18:51		Jul-06-18 19:07		Jul-06-18 19:13		Jul-06-18 19:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		237	4.98	167	4.90	174	5.00	109	4.95	203	4.97	47.9	4.94
TPH by SW8015 Mod	***Extracted:***	Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00	
	Analyzed:	Jul-07-18 20:01		Jul-07-18 20:59		Jul-07-18 21:19		Jul-07-18 21:38		Jul-07-18 21:58		Jul-07-18 22:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.001

Certificate of Analysis Summary 591024

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H

Project Id: 012918082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Mon Jul-02-18 09:00 am
Report Date: 18-JUL-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	591024-007		591024-008		591024-009		591024-010		591024-011		591024-012	
	Field Id:	SS8		SS9		SS10		SS11		SS12		SS13	
	Depth:	1- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-28-18 13:45		Jun-28-18 13:50		Jun-28-18 13:55		Jun-28-18 14:00		Jun-28-18 14:05		Jun-28-18 14:10	
BTEX by EPA 8021B	***Extracted:***	Jul-07-18 08:15		Jul-07-18 08:15		Jul-07-18 08:15		Jul-07-18 08:15		Jul-07-18 08:15		Jul-07-18 08:15	
	Analyzed:	Jul-08-18 01:51		Jul-08-18 02:09		Jul-08-18 02:27		Jul-08-18 02:45		Jul-08-18 03:02		Jul-08-18 03:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00403	0.00403	<0.00402	0.00402	<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402
o-Xylene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45		Jul-06-18 08:45	
	Analyzed:	Jul-06-18 19:24		Jul-06-18 19:29		Jul-06-18 19:51		Jul-06-18 19:56		Jul-06-18 20:12		Jul-06-18 20:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		126	4.97	144	4.97	47.5	4.93	148	4.94	188	4.98	114	4.91
TPH by SW8015 Mod	***Extracted:***	Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00		Jul-07-18 11:00	
	Analyzed:	Jul-07-18 22:36		Jul-07-18 22:56		Jul-07-18 23:15		Jul-07-18 23:35		Jul-08-18 00:33		Jul-08-18 00:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	17.9	15.0	<15.0	15.0	27.2	15.0	<15.0	15.0	<14.9	14.9
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		<15.0	15.0	17.9	15.0	<15.0	15.0	27.2	15.0	<15.0	15.0	<14.9	14.9

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Jessica Kramer
Project Assistant

Final 1.001

Certificate of Analysis Summary 591024

LT Environmental, Inc., Arvada, CO

Project Name: PLU 320H

Project Id: 012918082
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Mon Jul-02-18 09:00 am
Report Date: 18-JUL-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	591024-013		591024-014					
	Field Id:	SS14		SS15					
	Depth:	1- ft		6- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Jun-28-18 14:15		Jun-28-18 14:20					
BTEX by EPA 8021B	***Extracted:***	Jul-07-18 08:15		Jul-07-18 08:15					
	Analyzed:	Jul-08-18 03:38		Jul-08-18 03:56					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00198	0.00198				
Toluene		<0.00200	0.00200	<0.00198	0.00198				
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198				
m,p-Xylenes		<0.00400	0.00400	<0.00397	0.00397				
o-Xylene		<0.00200	0.00200	<0.00198	0.00198				
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198				
Total BTEX		<0.00200	0.00200	<0.00198	0.00198				
Inorganic Anions by EPA 300	***Extracted:***	Jul-06-18 08:45		Jul-06-18 08:45					
	Analyzed:	Jul-06-18 20:23		Jul-06-18 20:28					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		91.8	4.94	122	4.98				
TPH by SW8015 Mod	***Extracted:***	Jul-07-18 11:00		Jul-07-18 11:00					
	Analyzed:	Jul-08-18 01:12		Jul-08-18 01:32					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		27.0	15.0	<15.0	15.0				
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0				
Total TPH		27.0	15.0	<15.0	15.0				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS1A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-001	Date Collected:	06.27.18 14.00	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**237**	4.98	mg/kg	07.06.18 18.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 20.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 20.01	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 20.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 20.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.07.18 20.01	
o-Terphenyl	84-15-1	90	%	70-135	07.07.18 20.01	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS1A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-001	Date Collected:	06.27.18 14.00	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.18 21.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.18 21.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.18 21.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.07.18 21.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.18 21.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.18 21.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.18 21.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.07.18 21.40	
4-Bromofluorobenzene	460-00-4	77	%	70-130	07.07.18 21.40	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS2A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-002	Date Collected:	06.27.18 14.15	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**167**	4.90	mg/kg	07.06.18 18.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 20.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 20.59	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 20.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 20.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.07.18 20.59	
o-Terphenyl	84-15-1	96	%	70-135	07.07.18 20.59	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS2A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-002	Date Collected:	06.27.18 14.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.07.18 21.58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.07.18 21.58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.07.18 21.58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.07.18 21.58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.07.18 21.58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.07.18 21.58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.07.18 21.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	70-130	07.07.18 21.58	
1,4-Difluorobenzene	540-36-3	91	%	70-130	07.07.18 21.58	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS3A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-003	Date Collected:	06.28.18 13.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**174**	5.00	mg/kg	07.06.18 18.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.07.18 21.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.07.18 21.19	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.07.18 21.19	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.07.18 21.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.07.18 21.19	
o-Terphenyl	84-15-1	93	%	70-135	07.07.18 21.19	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS3A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-003	Date Collected:	06.28.18 13.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.18 22.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.18 22.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.18 22.16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.07.18 22.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.18 22.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.18 22.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.18 22.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	07.07.18 22.16	
4-Bromofluorobenzene	460-00-4	82	%	70-130	07.07.18 22.16	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS4A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-004	Date Collected:	06.27.18 14.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**109**	4.95	mg/kg	07.06.18 19.07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.07.18 21.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.07.18 21.38	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.07.18 21.38	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.07.18 21.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.07.18 21.38	
o-Terphenyl	84-15-1	94	%	70-135	07.07.18 21.38	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS4A**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-004	Date Collected:	06.27.18 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.08.18 08.00	Basis:	Wet Weight
Seq Number:	3055798				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00337	0.00337	mg/kg	07.08.18 11.20	U	1
Toluene	108-88-3	<0.00337	0.00337	mg/kg	07.08.18 11.20	U	1
Ethylbenzene	100-41-4	<0.00337	0.00337	mg/kg	07.08.18 11.20	U	1
m,p-Xylenes	179601-23-1	<0.00673	0.00673	mg/kg	07.08.18 11.20	U	1
o-Xylene	95-47-6	<0.00337	0.00337	mg/kg	07.08.18 11.20	U	1
Total Xylenes	1330-20-7	<0.00337	0.00337	mg/kg	07.08.18 11.20	U	1
Total BTEX		<0.00337	0.00337	mg/kg	07.08.18 11.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	124	%	70-130	07.08.18 11.20	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.08.18 11.20	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-005	Date Collected:	06.28.18 13.35	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**203**	4.97	mg/kg	07.06.18 19.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 21.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 21.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 21.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 21.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.07.18 21.58	
o-Terphenyl	84-15-1	95	%	70-135	07.07.18 21.58	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-005	Date Collected:	06.28.18 13.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.08.18 08.00	Basis:	Wet Weight
Seq Number:	3055798				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00332	0.00332	mg/kg	07.08.18 11.38	U	1
Toluene	108-88-3	<0.00332	0.00332	mg/kg	07.08.18 11.38	U	1
Ethylbenzene	100-41-4	<0.00332	0.00332	mg/kg	07.08.18 11.38	U	1
m,p-Xylenes	179601-23-1	<0.00664	0.00664	mg/kg	07.08.18 11.38	U	1
o-Xylene	95-47-6	<0.00332	0.00332	mg/kg	07.08.18 11.38	U	1
Total Xylenes	1330-20-7	<0.00332	0.00332	mg/kg	07.08.18 11.38	U	1
Total BTEX		<0.00332	0.00332	mg/kg	07.08.18 11.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	75	%	70-130	07.08.18 11.38	
4-Bromofluorobenzene	460-00-4	74	%	70-130	07.08.18 11.38	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-006	Date Collected:	06.28.18 13.40	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.9**	4.94	mg/kg	07.06.18 19.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 22.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 22.17	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 22.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 22.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	07.07.18 22.17	
o-Terphenyl	84-15-1	96	%	70-135	07.07.18 22.17	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-006	Date Collected:	06.28.18 13.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 07.45	Basis:	Wet Weight
Seq Number:	3055790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.18 23.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.18 23.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.18 23.10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.07.18 23.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.18 23.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.18 23.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.18 23.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	07.07.18 23.10	
4-Bromofluorobenzene	460-00-4	84	%	70-130	07.07.18 23.10	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS8**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-007	Date Collected:	06.28.18 13.45	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**126**	4.97	mg/kg	07.06.18 19.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 22.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 22.36	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 22.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 22.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	07.07.18 22.36	
o-Terphenyl	84-15-1	98	%	70-135	07.07.18 22.36	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS8**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-007	Date Collected:	06.28.18 13.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.08.18 01.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.08.18 01.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.08.18 01.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.08.18 01.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.08.18 01.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.08.18 01.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.08.18 01.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	70-130	07.08.18 01.51	
1,4-Difluorobenzene	540-36-3	83	%	70-130	07.08.18 01.51	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS9**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-008	Date Collected:	06.28.18 13.50	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**144**	4.97	mg/kg	07.06.18 19.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 22.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.9**	15.0	mg/kg	07.07.18 22.56		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 22.56	U	1
Total TPH	PHC635	**17.9**	15.0	mg/kg	07.07.18 22.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	07.07.18 22.56	
o-Terphenyl	84-15-1	98	%	70-135	07.07.18 22.56	

Certificate of Analytical Results 591024

LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS9**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-008	Date Collected:	06.28.18 13.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.08.18 02.09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.08.18 02.09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.08.18 02.09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.08.18 02.09	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.08.18 02.09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.08.18 02.09	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.08.18 02.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.08.18 02.09	
4-Bromofluorobenzene	460-00-4	79	%	70-130	07.08.18 02.09	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-009	Date Collected:	06.28.18 13.55	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.5**	4.93	mg/kg	07.06.18 19.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 23.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.07.18 23.15	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 23.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.07.18 23.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.07.18 23.15	
o-Terphenyl	84-15-1	89	%	70-135	07.07.18 23.15	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-009	Date Collected:	06.28.18 13.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.08.18 02.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.08.18 02.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.08.18 02.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.08.18 02.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.08.18 02.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.08.18 02.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.08.18 02.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	70-130	07.08.18 02.27	
1,4-Difluorobenzene	540-36-3	86	%	70-130	07.08.18 02.27	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-010	Date Collected:	06.28.18 14.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**148**	4.94	mg/kg	07.06.18 19.56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.07.18 23.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**27.2**	15.0	mg/kg	07.07.18 23.35		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.07.18 23.35	U	1
Total TPH	PHC635	**27.2**	15.0	mg/kg	07.07.18 23.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.07.18 23.35	
o-Terphenyl	84-15-1	102	%	70-135	07.07.18 23.35	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-010	Date Collected:	06.28.18 14.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.08.18 02.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.08.18 02.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.18 02.45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.08.18 02.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.18 02.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.18 02.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.08.18 02.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	07.08.18 02.45	
4-Bromofluorobenzene	460-00-4	77	%	70-130	07.08.18 02.45	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-011	Date Collected:	06.28.18 14.05	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**188**	4.98	mg/kg	07.06.18 20.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.08.18 00.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.08.18 00.33	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.08.18 00.33	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.08.18 00.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.08.18 00.33	
o-Terphenyl	84-15-1	95	%	70-135	07.08.18 00.33	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-011	Date Collected:	06.28.18 14.05	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.08.18 03.02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.08.18 03.02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.18 03.02	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.08.18 03.02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.18 03.02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.18 03.02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.08.18 03.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	71	%	70-130	07.08.18 03.02	
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.08.18 03.02	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS13**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-012	Date Collected:	06.28.18 14.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**114**	4.91	mg/kg	07.06.18 20.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.08.18 00.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.08.18 00.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.08.18 00.53	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.08.18 00.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.08.18 00.53	
o-Terphenyl	84-15-1	101	%	70-135	07.08.18 00.53	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS13**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-012	Date Collected:	06.28.18 14.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.08.18 03.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.08.18 03.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.08.18 03.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.08.18 03.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.08.18 03.20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.08.18 03.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.08.18 03.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.08.18 03.20	
4-Bromofluorobenzene	460-00-4	75	%	70-130	07.08.18 03.20	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-013	Date Collected:	06.28.18 14.15	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**91.8**	4.94	mg/kg	07.06.18 20.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.08.18 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	**27.0**	15.0	mg/kg	07.08.18 01.12		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.08.18 01.12	U	1
Total TPH	PHC635	**27.0**	15.0	mg/kg	07.08.18 01.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.08.18 01.12	
o-Terphenyl	84-15-1	97	%	70-135	07.08.18 01.12	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-013	Date Collected:	06.28.18 14.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.08.18 03.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.08.18 03.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.18 03.38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.08.18 03.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.18 03.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.18 03.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.08.18 03.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	07.08.18 03.38	
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.08.18 03.38	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS15**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-014	Date Collected:	06.28.18 14.20	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	07.06.18 08.45	Basis:	Wet Weight
Seq Number:	3055726				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**122**	4.98	mg/kg	07.06.18 20.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	07.07.18 11.00	Basis:	Wet Weight
Seq Number:	3055923				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.08.18 01.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.08.18 01.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.08.18 01.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.08.18 01.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.08.18 01.32	
o-Terphenyl	84-15-1	95	%	70-135	07.08.18 01.32	

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LT Environmental, Inc., Arvada, CO

PLU 320H

Sample Id:	**SS15**	Matrix:	Soil	Date Received:	07.02.18 09.00
Lab Sample Id:	591024-014	Date Collected:	06.28.18 14.20	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	07.07.18 08.15	Basis:	Wet Weight
Seq Number:	3055793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.08.18 03.56	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.08.18 03.56	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.08.18 03.56	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.08.18 03.56	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.08.18 03.56	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.08.18 03.56	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.08.18 03.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	79	%	70-130	07.08.18 03.56	
1,4-Difluorobenzene	540-36-3	118	%	70-130	07.08.18 03.56	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

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

+ NELAC certification not offered for this compound.

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

QC Summary 591024

LT Environmental, Inc.

PLU 320H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055726 Matrix: Solid Date Prep: 07.06.18
MB Sample Id: 7657951-1-BLK LCS Sample Id: 7657951-1-BKS LCSD Sample Id: 7657951-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	267	107	271	108	90-110	1	20	mg/kg	07.06.18 18:08	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055726 Matrix: Soil Date Prep: 07.06.18
Parent Sample Id: 591023-002 MS Sample Id: 591023-002 S MSD Sample Id: 591023-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.95	248	273	110	275	111	90-110	1	20	mg/kg	07.06.18 18:24	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3055726 Matrix: Soil Date Prep: 07.06.18
Parent Sample Id: 591023-003 MS Sample Id: 591023-003 S MSD Sample Id: 591023-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	256	102	256	102	90-110	0	20	mg/kg	07.06.18 19:40	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3055923 Matrix: Solid Date Prep: 07.07.18
MB Sample Id: 7658082-1-BLK LCS Sample Id: 7658082-1-BKS LCSD Sample Id: 7658082-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1000	100	991	99	70-135	1	20	mg/kg	07.07.18 19:22	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1030	103	70-135	2	20	mg/kg	07.07.18 19:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		119		122		70-135	%	07.07.18 19:22
o-Terphenyl	108		115		112		70-135	%	07.07.18 19:22

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

QC Summary 591024

LT Environmental, Inc.

PLU 320H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3055923 | Matrix: Soil | Date Prep: 07.07.18
Parent Sample Id: 591024-001 | MS Sample Id: 591024-001 S | MSD Sample Id: 591024-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	952	95	948	95	70-135	0	20	mg/kg	07.07.18 20:20	
Diesel Range Organics (DRO)	<15.0	997	1070	107	1060	106	70-135	1	20	mg/kg	07.07.18 20:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		116		70-135	%	07.07.18 20:20
o-Terphenyl	98		98		70-135	%	07.07.18 20:20

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3055790 | Matrix: Solid | Date Prep: 07.07.18
MB Sample Id: 7657996-1-BLK | LCS Sample Id: 7657996-1-BKS | LCSD Sample Id: 7657996-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0928	93	0.0923	91	70-130	1	35	mg/kg	07.07.18 15:05	
Toluene	<0.00201	0.100	0.0940	94	0.0945	94	70-130	1	35	mg/kg	07.07.18 15:05	
Ethylbenzene	<0.00201	0.100	0.0936	94	0.0934	92	70-130	0	35	mg/kg	07.07.18 15:05	
m,p-Xylenes	<0.00402	0.201	0.189	94	0.195	97	70-130	3	35	mg/kg	07.07.18 15:05	
o-Xylene	<0.00201	0.100	0.0891	89	0.0988	98	70-130	10	35	mg/kg	07.07.18 15:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	120		101		99		70-130	%	07.07.18 15:05
4-Bromofluorobenzene	88		80		88		70-130	%	07.07.18 15:05

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3055793 | Matrix: Solid | Date Prep: 07.07.18
MB Sample Id: 7657998-1-BLK | LCS Sample Id: 7657998-1-BKS | LCSD Sample Id: 7657998-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0980	98	0.0755	75	70-130	26	35	mg/kg	07.07.18 23:46	
Toluene	<0.00200	0.100	0.0971	97	0.0739	73	70-130	27	35	mg/kg	07.07.18 23:46	
Ethylbenzene	<0.00200	0.100	0.0900	90	0.0759	75	70-130	17	35	mg/kg	07.07.18 23:46	
m,p-Xylenes	<0.00401	0.200	0.185	93	0.153	76	70-130	19	35	mg/kg	07.07.18 23:46	
o-Xylene	<0.00200	0.100	0.0912	91	0.0721	71	70-130	23	35	mg/kg	07.07.18 23:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		88		74		70-130	%	07.07.18 23:46
4-Bromofluorobenzene	81		77		70		70-130	%	07.07.18 23:46

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

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

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

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

QC Summary 591024

LT Environmental, Inc.

PLU 320H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055798 — Matrix: Solid — Date Prep: 07.08.18
MB Sample Id: 7658000-1-BLK — LCS Sample Id: 7658000-1-BKS — LCSD Sample Id: 7658000-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.104	104	0.0859	85	70-130	19	35	mg/kg	07.08.18 08:22	
Toluene	<0.00200	0.100	0.107	107	0.0893	88	70-130	18	35	mg/kg	07.08.18 08:22	
Ethylbenzene	<0.00200	0.100	0.108	108	0.0885	88	70-130	20	35	mg/kg	07.08.18 08:22	
m,p-Xylenes	<0.00401	0.200	0.221	111	0.181	90	70-130	20	35	mg/kg	07.08.18 08:22	
o-Xylene	<0.00200	0.100	0.104	104	0.0863	85	70-130	19	35	mg/kg	07.08.18 08:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		91		93		70-130	%	07.08.18 08:22
4-Bromofluorobenzene	73		85		82		70-130	%	07.08.18 08:22

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055790 — Matrix: Soil — Date Prep: 07.07.18
Parent Sample Id: 591023-003 — MS Sample Id: 591023-003 S — MSD Sample Id: 591023-003 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	0.0834	83	0.0819	81	70-130	2	35	mg/kg	07.07.18 15:41	
Toluene	<0.00200	0.100	0.0840	84	0.0776	77	70-130	8	35	mg/kg	07.07.18 15:41	
Ethylbenzene	<0.00200	0.100	0.0815	82	0.0771	76	70-130	6	35	mg/kg	07.07.18 15:41	
m,p-Xylenes	<0.00401	0.200	0.165	83	0.157	78	70-130	5	35	mg/kg	07.07.18 15:41	
o-Xylene	<0.00200	0.100	0.0793	79	0.0763	76	70-130	4	35	mg/kg	07.07.18 15:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		83		70-130	%	07.07.18 15:41
4-Bromofluorobenzene	83		78		70-130	%	07.07.18 15:41

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3055793 — Matrix: Soil — Date Prep: 07.07.18
Parent Sample Id: 591118-002 — MS Sample Id: 591118-002 S — MSD Sample Id: 591118-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0888	89	0.0720	72	70-130	21	35	mg/kg	07.08.18 00:21	
Toluene	<0.00201	0.100	0.0758	76	0.0642	64	70-130	17	35	mg/kg	07.08.18 00:21	X
Ethylbenzene	<0.00201	0.100	0.0475	48	0.0346	35	70-130	31	35	mg/kg	07.08.18 00:21	X
m,p-Xylenes	<0.00402	0.201	0.117	58	0.0843	42	70-130	32	35	mg/kg	07.08.18 00:21	X
o-Xylene	<0.00201	0.100	0.0658	66	0.0563	57	70-130	16	35	mg/kg	07.08.18 00:21	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	124		78		70-130	%	07.08.18 00:21
4-Bromofluorobenzene	101		78		70-130	%	07.08.18 00:21

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

QC Summary 591024

LT Environmental, Inc.

PLU 320H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3055798 Matrix: Soil Date Prep: 07.08.18

Parent Sample Id: 591031-011 MS Sample Id: 591031-011 S MSD Sample Id: 591031-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0980	97	0.0845	85	70-130	15	35	mg/kg	07.08.18 08:58	
Toluene	<0.00202	0.101	0.0955	95	0.0816	82	70-130	16	35	mg/kg	07.08.18 08:58	
Ethylbenzene	<0.00202	0.101	0.0927	92	0.0836	84	70-130	10	35	mg/kg	07.08.18 08:58	
m,p-Xylenes	<0.00403	0.202	0.192	95	0.171	85	70-130	12	35	mg/kg	07.08.18 08:58	
o-Xylene	<0.00202	0.101	0.0887	88	0.0788	79	70-130	12	35	mg/kg	07.08.18 08:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		126		70-130	%	07.08.18 08:58
4-Bromofluorobenzene	90		104		70-130	%	07.08.18 08:58

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

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Xenco Quote #:
Xenco Job #: 591024

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian Office
Company Address: 3300 N "A" St, Bldg 2, Unit 103 Midland TX
Email: Abaker@ltenv
Phone No: 4327045178
Project Contact: Adrian Baker
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: PLU 320 H / 01298082
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-3788

Analytical Information: BTEX, TPH, Chloride

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride	Field Comments
1	SS1A	3'	6-27	1400	Soil	1								✓	✓	✓	✓	
2	SS2A	2'	6-27	1415														
3	SS3A	1'	6-28	1330														
4	SS4A	2'	6-27	1430														
5	SS6	1'	6-28	1335														
6	SS7	1'		1340														
7	SS8	1'		1345														
8	SS9	2'		1350														
9	SS10	2'		1355														
10	SS11	2'	↓	1400	↓	↓								↓	↓	↓	↓	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] Next Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 3 Day EMERGENCY
- [ ] 5 Day TAT
- [ ] 7 Day TAT
- [ ] Contract TAT

Standard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] Level II Report with TRRP checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

Notes:

FED-EX / UPS: Tracking # 772600052739

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	6-28-18 / 1730	[signature] 6/28/18 17:37	2 [signature]	6/29/18 15:30	[signature] 6-30-18 0900
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable / On Ice	Cooler Temp. 3.2 Thermo. Corr. Factor NC 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

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www.xenco.com

Xenco Quote # | Xenco Job # 591024

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian Office
Company Address: 3300 N "A" St, Bldg 1, Unit 103 Midland, TX
Email: Abaker@ltenv.com | Phone No: 4327095178
Project Contact: Adrian Baker
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: PLU 320 H | 012918082
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP - 3788

Analytical Information

BTEX | TPH | Chloride

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride	Field Comments
1	SS12	2'	6-28	1405	S	1								X	X	X	X	
2	SS13	2'		1410														
3	SS14	1'		1415														
4	SS15	6"		1420														
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days) | Data Deliverable Information | Notes:

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY ✓ Standard

TAT Starts Day received by Lab, if received by 5:00 pm

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

FED-EX / UPS: Tracking # 772607058739

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/28/1730	1	2	6/29/18 15:30	2 06-30-18 0900
3			3	4		4
5			5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 3.2 / Thermo. Corr. Factor 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/02/2018 09:00:00 AM

Work Order #: 591024

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#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)?	**N/A**
#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: Brianna Teel Date: 07/02/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 07/02/2018

Jessica Kramer

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 199281

COMMENTS

Operator: BOPCO, L.P. 6401 Holiday Hill Rd Midland, TX 79707	OGRID: 260737
	Action Number: 199281
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

COMMENTS

Created By	Comment	Comment Date
amaxwell	Historical document upload.	3/21/2023

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CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	3/21/2023