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LT Environmental, Inc.
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Building 1, Unit 103
Midland, Texas 79705
432.704.5178

March 20, 2020

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

RE: Closure Request
Poker Lake Unit Delaware C Saltwater Disposal Battery/Delaware C Tank Battery
Remediation Permit Numbers 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Poker Lake Unit (PLU) Delaware C Saltwater Disposal (SWD) Battery/Delaware C Tank Battery (Site) in Unit G, Section 6, Township 24 South, Range 30 East, Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacted soil resulting from five historical releases of crude oil and/or produced water at the Site. Based on the assessment activities and results of the soil sampling events, XTO is submitting this Closure Request, requesting no further action for the release events.

The releases are included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The releases are categorized as Tier IV sites in the Compliance Agreement, meaning the releases occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On May 30, 2012, a pipe fitting on the discharge line from SWD pump broke and caused the release of approximately 25 barrels (bbls) of produced water. Approximately 1,960 square feet of pasture west of the tank battery was affected by the release. No released fluids were recovered. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on June 24, 2012 and was assigned Remediation Permit (RP) Number 2RP-1205 (Attachment 1).

On August 18, 2012, the water transfer pumps failed, causing produced water tanks to overflow. Approximately 10 bbls of crude oil and 20 bbls of produced water were released. Approximately 900 square feet of the tank battery containment and 2,000 square feet of pasture west of the tank battery were affected by the release. No released fluids were recovered. Approximately 40 cubic yards of impacted soil were excavated from the containment. The excavation was sampled, backfilled, and a liner was installed. The former operator reported the release to the NMOCD on a Form C-141 on September 5, 2012 and was assigned RP Number 2RP-1305 (Attachment 1).

On September 2, 2012, the truck load line valve was left open, allowing approximately 200 bbls of produced water to spill onto the surface of the caliche pad. Approximately 11,770 square feet of pad and lease road, and 7,060 square feet of pasture were affected by the release. A vacuum truck recovered 5 bbls of free-standing fluid, and a backhoe was used to scrape up the saturated soil. The former operator reported the release to the NMOCD on a Form C-141 on September 5, 2012 and was assigned RP Number 2RP-1304 (Attachment 1).

On September 19, 2012, a connection going from the charge pumps to the H-pump failed. The pumps were shut down upon discovery. Approximately 650 bbls of produced water were released; no released fluids were recovered. The well pad, lease road, and adjacent pasture were affected by the release. Delineation activities were scheduled to determine the extent of impacted soil at the Site. The former operator reported the release to the NMOCD on a Form C-141 on September 28, 2012 and was assigned RP Number 2RP-1383 (Attachment 1).

On April 21, 2014, a high-pressure fiberglass line coupling broke at the threads, causing approximately 200 bbls of produced water to release. A vacuum truck recovered approximately 15 bbls of produced water. Approximately 4,000 square feet of caliche pad, 1,300 square feet of lease road, and 4,200 square feet of pasture were affected by the release. Remediation of all releases was scheduled to take place during the upcoming SWD dismantling and tank battery relocation activities. The former operator reported the release to the NMOCD on a Form C-141 on April 24, 2014 and was assigned RP Number 2RP-2264 (Attachment 1).

Although all five of 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 releases occurred in the same general area of the well pad, lease road, and pasture, site assessment and soil sampling activities were completed to address and close all five releases simultaneously. The initial Form C-141s indicated that soil excavation activities had occurred and that additional remediation activities were scheduled for 2014.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of 19.15.29.12 of the NMAC. Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted

groundwater well with depth to groundwater data is New Mexico Office of State Engineer (NMOSE) well C-02108, located approximately 1.34 miles southeast of the Site. The water well has a depth to groundwater of 186 feet bgs and a total depth of 200 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 1,590 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low-potential karst area.

CLOSURE CRITERIA

- Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:
- Benzene: 10 milligrams per kilogram (mg/kg);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg;
- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg;
- Total petroleum hydrocarbons (TPH): 2,500 mg/kg; and
- Chloride: 20,000 mg/kg.

A closure criteria of 600 mg/kg chloride was applied to the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

During February and August 2018, LTE inspected the Site to evaluate the release areas associated with the five historical releases. Sixteen preliminary soil samples (SS1 through SS16) were collected within and around the release areas to assess the lateral extent of impacted soil. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141 and field observations. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, soil samples SS3 through SS5 and SS7 through SS16 were collected from a depth of 0.5 feet bgs.

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

range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0. The soil sample locations are depicted on Figure 2.

Between August 2018 and October 2019, LTE personnel returned to the Site to oversee additional site assessment activities.

Boreholes and potholes and were advanced via track hoe or hand auger at 24 locations on the well pad, lease road, and pasture to assess the lateral and vertical extent impacted soil. Boreholes BH01 through BH16 were advanced to depths ranging from 2 feet to 14 feet bgs at the approximate locations of preliminary soil samples SS01 through SS16. Potholes PH17 through PH24 were advanced to a depth of 2 feet bgs within the well pad release area. Potholes PH18, PH19, and PH20 were advanced in the area around preliminary soil sample SS7 where hydrocarbon impacted soil was initially identified. Delineation soil samples were collected from each borehole and pothole from depths ranging from 2 feet to 14 feet bgs. Soil from the boreholes and potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes and potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation soil sample locations are depicted on Figure 3.

The delineation soil samples were collected, handled, and analyzed as described above and submitted to Xenco. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS1 through SS6 and SS08 through SS16, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results indicated that GRO/DRO and TPH concentrations exceeded the Closure Criteria in preliminary soil sample SS7, collected on the well pad from a depth of 0.5 feet bgs.

Laboratory analytical results for the delineation soil samples collected from boreholes BH01 through BH16 and potholes PH17 through PH24, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results indicated that chloride concentrations were below 600 mg/kg in soil samples SS3 through SS6, SS08 through SS11, and BH08 through BH12, that were collected from the top four feet of the pasture.

CLOSURE REQUEST

Site assessment and soil sampling activities were completed within the release areas on the well pad, lease road, and pasture to assess for soil impacts resulting from five historical releases at the Site. Laboratory analytical results for preliminary soil samples SS1 through SS6 and SS08 through SS16, and delineation soil samples collected from boreholes BH01 through BH16 and potholes PH17 through PH24 indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, laboratory analytical results indicated that chloride concentrations were below 600 mg/kg in soil samples SS3 through SS6, SS08 through SS11, and BH08 through BH12, that were collected from the top four feet of the pasture.

Laboratory analytical results indicated that GRO/DRO and TPH concentrations exceeded the Closure Criteria in preliminary soil sample SS7, collected during February 2018 from a depth of 0.5 feet bgs. Preliminary soil sample SS7 was located on pad approximately 35 feet to the north of the SWD tank battery containment. During October 2019, potholes PH18, PH19, and PH20 were advanced in the area around preliminary soil sample SS7. Delineation soil samples were collected from depths of one foot and two feet bgs from each pothole. Laboratory analytical results for the delineation soil samples collected from potholes PH18, PH19, and PH20, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. In addition, the lithologic boring logs indicated no reportable PID measurements, and no staining or petroleum odor. Based on field screening activities and laboratory analytical results, no impacted soil remained in the area around preliminary soil sample SS7.

Based on the soil sample laboratory analytical results from the site assessment activities, no further remediation was required. The historical releases occurred during 2012 and 2014. The former operator indicated on the initial Form C-141s that excavation activities had occurred, and that additional remediation of impacted soil was being scheduled. The absence of impacted soil identified during LTE's assessment activities implies that unreported remediation/excavation activities have been completed at the Site in the past by the previous operator. Additionally, vegetation in the pasture appeared healthy and consistent with the surrounding vegetation.

Initial response efforts, natural attenuation, and presumed historical excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for RP Numbers 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264. An updated NMOCD Form C-141 for each release is included in Attachment 1.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Kevin M. Axe, P.G.
Senior Geologist

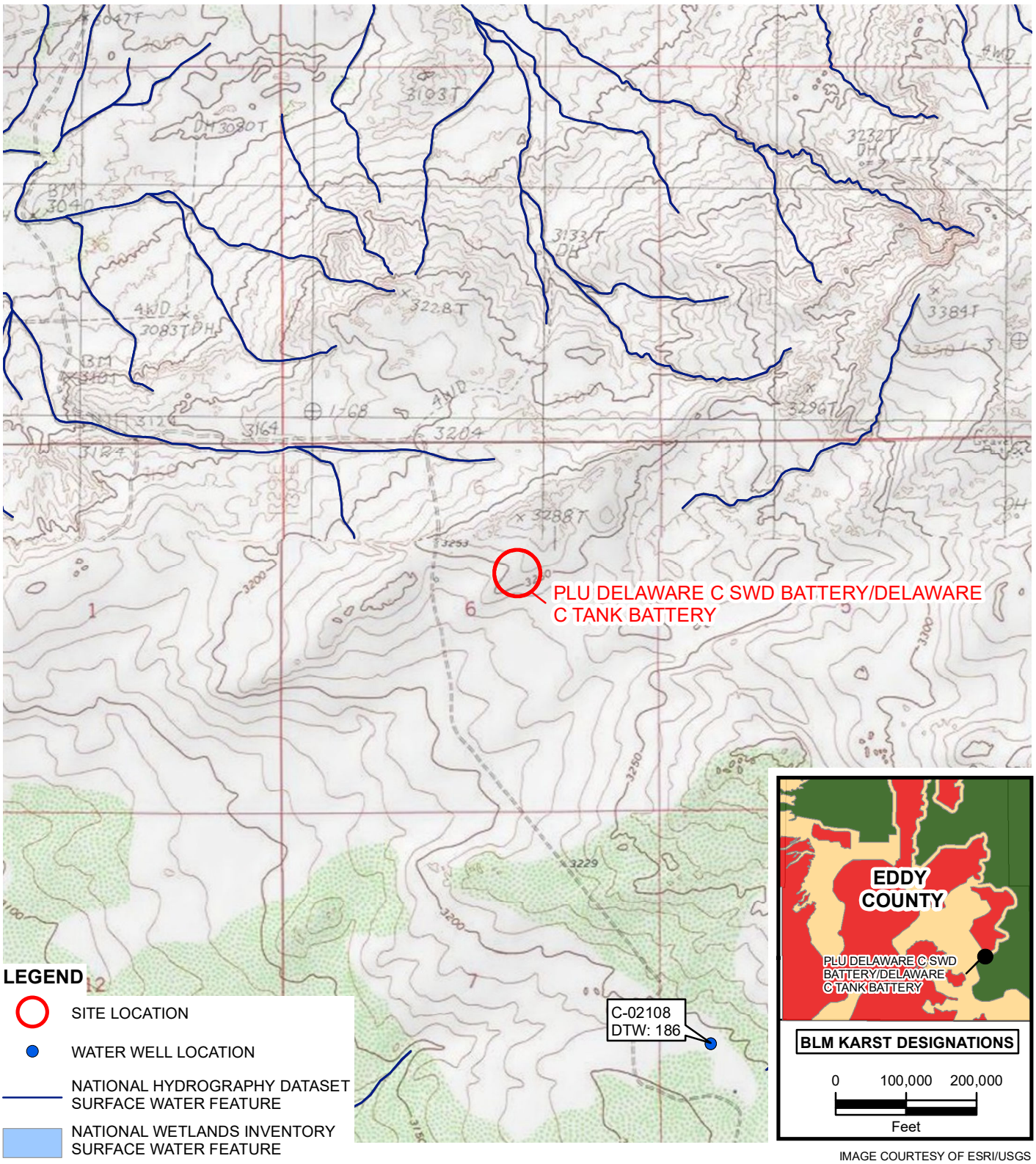
Ashley L. Ager, P.G.
Senior Geologist

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

Attachments:

Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3 Delineation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Initial/Final NMOCD Form C-141 (2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264)
Attachment 2 Lithologic / Soil Sample Logs
Attachment 3 Photographic Log
Attachment 4 Laboratory Analytical Reports

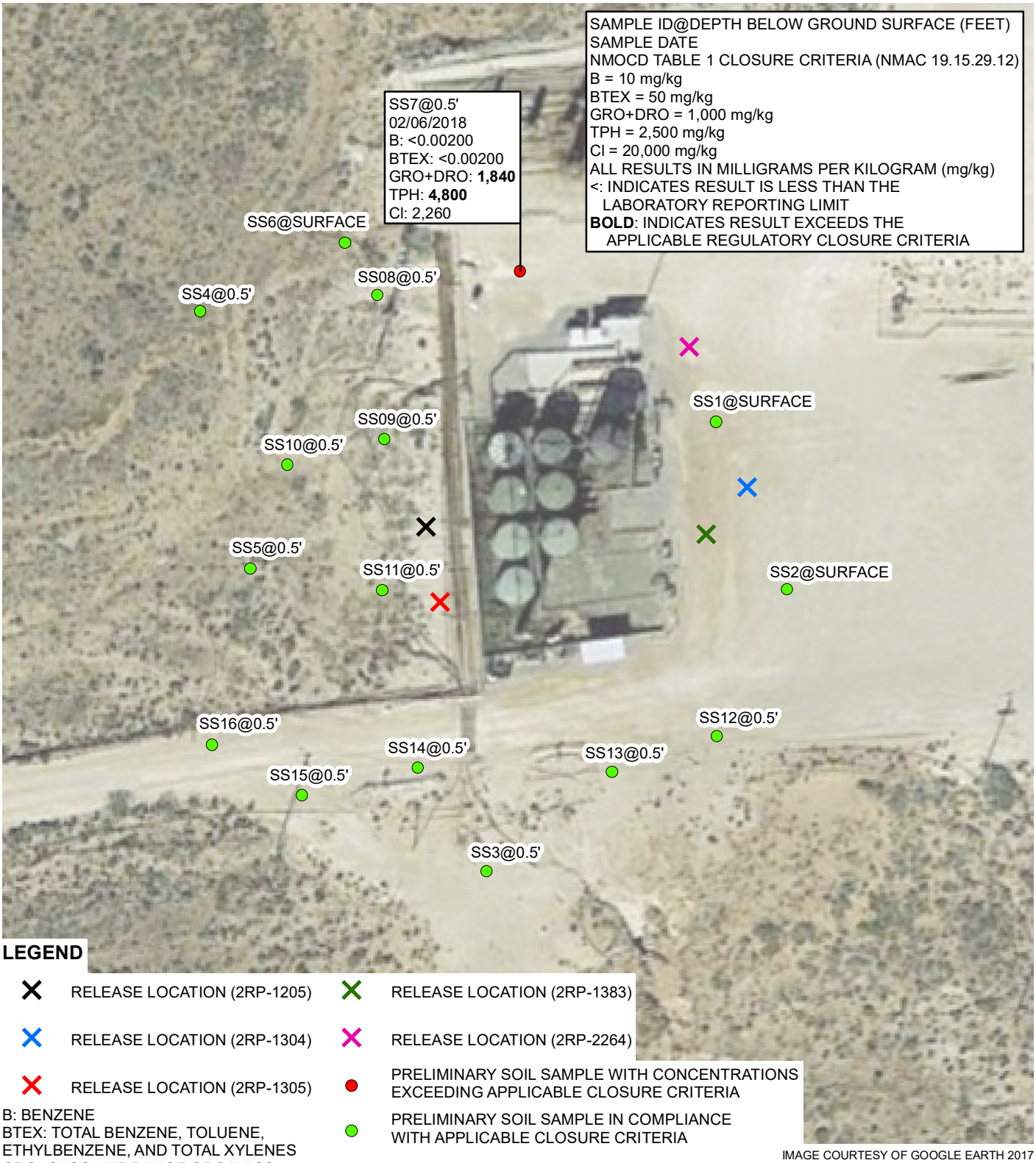
FIGURES



NOTE: REMEDIATION PERMIT NUMBERS 2RP-2264, 2RP-1304, 2RP-1305, 2RP-1383, 2RP-1205
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY
UNIT G SEC 6 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918038_DELAWARE C SWD\012918038_FIG01_RECEPTOR_SL_2020.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: REMEDIATION PERMIT NUMBERS 2RP-2264, 2RP-1304, 2RP-1305, 2RP-1383, 2RP-1205

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY
UNIT G SEC 6 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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LEGEND

- RELEASE LOCATION (2RP-1205)
- RELEASE LOCATION (2RP-1304)
- RELEASE LOCATION (2RP-1305)
- RELEASE LOCATION (2RP-1383)
- RELEASE LOCATION (2RP-2264)
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: REMEDIATION PERMIT NUMBERS 2RP-2264, 2RP-1304, 2RP-1305, 2RP-1383, 2RP-1205

IMAGE COURTESY OF GOOGLE EARTH 2017

0 60 120
Feet

N

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY
UNIT G SEC 6 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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TABLES

TABLE 1

SOIL ANALYTICAL RESULTS

PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY

REMEDIATION PERMIT NUMBER 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264

EDDY COUNTY, NEW MEXICO

XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS1	Surface	02/06/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	58.1	37.3	58.1	95.4	2,140
SS2	Surface	02/06/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	25.2	<15.0	25.2	25.2	6,270
SS3	0.5	02/06/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	23.2*
SS4	0.5	02/06/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99*
SS5	0.5	02/06/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99*
SS6	Surface	02/06/2018	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98*
SS7	0.5	02/06/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	1,840	410	**1,840**	**4,800**	2,260
SS08	0.5	08/20/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	61.9	<15.0	61.9	61.9	<1.00*
SS09	0.5	08/20/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	6.32*
SS10	0.5	08/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99*
SS11	0.5	08/20/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	64.4*
SS12	0.5	08/21/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	81.5	<15.0	81.5	81.5	1,800
SS13	0.5	08/21/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	15.5	<14.9	15.5	15.5	258
SS14	0.5	08/21/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	183
SS15	0.5	08/21/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	82.0
SS16	0.5	08/21/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	491
BH01	14	08/17/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	77.2
BH02	5.5	08/17/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	74.4
BH03	4	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	51.7
BH04	9.5	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	188
BH05	6	08/17/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	172
BH06	9	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	71.6
BH07	12	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	2,550
BH08	2	08/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	24.1*
BH09	2	08/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	<14.9	<14.9	<14.9	<14.9	<1.00*
BH10	2	08/20/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	3.07*
BH11	2	08/20/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	147*
BH12	2	08/20/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	500*
BH13	12	08/20/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	90.0

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TABLE 1
SOIL ANALYTICAL RESULTS

PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY
REMEDIATION PERMIT NUMBER 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH14	3	08/21/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	60.7	<15.0	60.7	60.7	317
BH15	2	08/21/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,080
BH16	2	08/21/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	20.6	<14.9	20.6	20.6	453
PH17	1	10/24/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	912
PH17A	2	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	577
PH18	1	10/24/2019	<0.00208	<0.00208	<0.00208	<0.00208	<0.00208	<50.0	<50.0	<50.0	<50.0	<50.0	519
PH18A	2	10/24/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	13.8
PH19	1	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	614
PH19A	2	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	16.3
PH20	1	10/24/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	579
PH20A	2	10/24/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,200
PH21	1	10/24/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	833
PH21A	2	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,480
PH22	1	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,060
PH22A	2	10/24/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	931
PH23	1	10/24/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,260
PH23A	2	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,260
PH24	1	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	384
PH24A	2	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	319

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
ORO - oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard
< indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-1205, 2RP-1305, 2RP-1304. 2RP-1383, and 2RP-2264)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

nJMW 1219345739

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. 432-556-8730
Facility Name: Poker Lake Unit Delaware C SWD Battery	Facility Type E&P

Surface Owner Federal	Mineral Owner Federal	~~Lease No 891000303F~~ API #

Poker Lake Ut # 153

LOCATION OF RELEASE

30-015-31412

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	6	24S	30E					Eddy

Latitude N 32.248850 **Longitude** W 103.919067

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 25 bbls of produced water	Volume Recovered: None
Source of Release: Produced water storage tank	Date and Hour of Occurrence 5/30/12, Hour unknown	Date and Hour of Discovery 5/30/12 8:30 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Emergency #104 and Jim Amos with the BLM	
By Whom? Tony Savoie	Date and Hour 6/1/12, NMOCD at 11:41 a.m. BLM at 11:45 a.m. The report was delayed due to a medical situation with T.S.	
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.* A pipe fitting on the discharge line from the SWD pump broke, the pipe connection was replaced the same day.

Describe Area Affected and Cleanup Action Taken.. Approximately 1960 sq.ft. of pasture land was impacted west of the tank battery, this area has had several flow line spills in the same area that the release covered. All of the fluid soaked into the ground before it could be recovered. A remediation plan will be developed in accordance with the NMOCD and BLM remediation guidelines.

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	OIL CONSERVATION DIVISION
Printed Name: Tony Savoie	Approved by District Supervisor: Signed By Mike Bratcher
Title: Waste Mgmt.& Remediation Specialist	Approval Date: JUL 11 2012 Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval: Attached ☐
Date: 6/24/12 Phone:432-556-8730	

* Attach Additional Sheets If Necessary

Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:** 8/11/12

2RP-1205

RECEIVED
JUN 26 2012
NMOCD ARTESIA

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-1205
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-1205
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.248850 Longitude -103.919067
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit Delaware C SWD Battery	Site Type Exploration and Production
Date Release Discovered 5/30/2012	API# *(if applicable)* 30-015-31412

Unit Letter	Section	Township	Range	County
G	6	24S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 25 bbls	Volume Recovered (bbls) 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A pipe fitting on the discharge line from the SWD pump broke. The fitting was replaced the same day. An area covering approximately 1,960 sq. ft of pasture land was affected west of the tank battery.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1205
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release volume was greater than 25 bbls.
If YES, was immediate notice given to the OCD? Yes, by Tony Savoie to NMOCD Emergency Response #104 and Jim Amos (BLM) on 6/1/2012 at 11:41 a.m.	

Initial Response

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

☒ The source of the release has been stopped.

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

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

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1205
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1205
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nJMW1219345739
District RP	2RP-1205
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

02/02/2021 closure DENIED Site needs additional subsurface data collection
Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings

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

nJMW1228428008

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: Delaware "C" Tank Battery, same well pad as the PLU-153	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-31412

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	6	24S	30 E					Eddy

Latitude N 32.248735 Longitude W 103.918797

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 200 bbls produced water	Volume Recovered: 5 bbls
Source of Release: Truck load line	Date and Hour of Occurrence: 9/2/12 time unknown	Date and Hour of Discovery: 9/2/12 8:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Artesia NMOCD emergency #104	
By Whom? Tony Savoie	Date and Hour: 9/2/12 at 12:19 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
SEP 06 2012
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The truck load line valve was left open allowing the produced water to spill out onto the tank battery pad. The valve was closed upon discovery.

Describe Area Affected and Cleanup Action Taken.*
Approximately 11,770 sq.ft. of caliche pad and lease road and approximately 7060 sq.ft. of pasture was affected by the release, all of the fluid that was released into the pasture soaked in, the free standing fluid was removed with a backhoe and the saturated soil on the caliche pad was scraped up and stockpiled on-site. The spill will be remediated in accordance to the NMOCD recommended guidelines for spills.

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:9/5/12 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: OCT 10 2012 Expiration Date:

Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:** November 10, 2012

2RP-1304

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-1304
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-1304
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.248735 Longitude -103.918797
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Delaware "C" Tank Battery	Site Type Exploration and Production
Date Release Discovered 9/2/2012	API# *(if applicable)* 30-015-31412

Unit Letter	Section	Township	Range	County
G	6	24S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 200 bbls	Volume Recovered (bbls) 5 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The truck load line valve was left open allowing the produced water to spill out onto the tank battery pad. The valve was closed upon discovery. Approximately 11,770 square feet of caliche pad and lease road, and approximately 7,060 square feet of pasture land was affected by the release. Free standing fluid was removed with a backhoe and the saturated soil on the caliche pad was scraped up and stockpiled on-site.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1304
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release volume was greater than 25 bbls.
If YES, was immediate notice given to the OCD? Yes, by Tony Savoie to Emergency Response #104 on 9/2/2012 at 12:19 p.m.	

Initial Response

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

☒ The source of the release has been stopped.

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

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

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	2RP-1304
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1304
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nJMW1228428008
District RP	2RP-1304
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

02/02/2021 closure DENIED Site needs additional subsurface data collection
Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings

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

nJMW1228429248

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: Delaware "C" Tank Battery, same well pad as the PLU-153	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-31412

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	6	24S	30 E					Eddy

Latitude N 32.248735 Longitude W 103.918797

NATURE OF RELEASE

Type of Release: Crude oil and produced water	Volume of Release: 10 bbls crude oil and 20 bbls produced water	Volume Recovered: None
Source of Release: Produced water tank	Date and Hour of Occurrence: 8/18/12 at 4:00 p.m.	Date and Hour of Discovery: 8/18/12 4:00 p.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Late notification in person to Randy Dade	
By Whom?	Date and Hour: 8/20/12 8:30 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
SEP 06 2012
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The water transfer pumps failed causing the water tanks to over-flow, an equalizer line was opened within 20 minutes after the tanks started to spill over. This action stopped the spill until the pumps could be repaired.

Describe Area Affected and Cleanup Action Taken.*
The 0 perm containment was being repaired at the time of the spill, the spill affected an area of approximately 900 sq. ft inside the containment area, and approximately 2000 sq. ft pasture area west of the tank battery. All of the impacted soil that could be removed around the tanks was hand excavated and placed on the pad area near the tank battery, approximately 40 cubic yards of soil was removed, the area was sampled and backfilled to allow for the containment to be re-built, and the liner installed. The area outside the containment will be remediated at a later date following the NMOCD guidelines for 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:9/5/12 Phone: 432-556-8730

* Attach Additional Sheets If Necessary

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: OCT 10 2012 Expiration Date:

Conditions of Approval:

Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:** November 10, 2012

Attached ☐

2RP-1305

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-1305
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-1305
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.248735 Longitude -103.918797
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Delaware "C" Tank Battery	Site Type Exploration and Production
Date Release Discovered 8/18/2012	API# *(if applicable)* 30-015-31412

Unit Letter	Section	Township	Range	County
G	6	24S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 10 bbls	Volume Recovered (bbls) 0 bbls
☒ Produced Water	Volume Released (bbls) 20 bbls	Volume Recovered (bbls) 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The water transfer pumps failed causing the water tanks to overflow, an equalizer line was opened within 20 minutes after the tanks started to spill over. The release affected approximately 900 square feet inside the containment area and approximately 2,000 square feet of pasture area west of the tank battery. All of the impacted soil that could be removed around the tanks was excavated. The area was sampled and backfilled to allow for the containment to be re-built, and the liner installed.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1305
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release volume was greater than 25 bbls.
If YES, was immediate notice given to the OCD? No, late notification was givin in person to Randy Dade on 8/20/2012 at 8:30 a.m.	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1305
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1305
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nJMW1228429248
District RP	2RP-1305
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

02/02/2021 closure DENIED Site needs additional subsurface data collection
Also needs bore hole to verify depth to water is more than 51 feet from surface Bradford Billings

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

RECEIVED
OCT 01 2012
NMOCD ARTESIA

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

nJM1231129593

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: Delaware "C" Tank Battery, same well pad as the PLU-153	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-31412

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	6	24S	30 E					Eddy

Latitude N 32.248735 Longitude W 103.918797

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 650 bbls produced water	Volume Recovered: 0 bbls
Source of Release: 8" suction line to SWD H-pump	Date and Hour of Occurrence: ~~8/19~~/12 time approximately 12:00 a.m. 9/19/12	Date and Hour of Discovery: ~~8/19/12~~ 2:00 a.m. 9/19/12
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Artesia NMOCD emergency #104 and Jim Amos with the BLM	
By Whom? Tony Savoie	Date and Hour: 8/19/12 at 8:52 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.*
A connection going from the charge pumps to the H-pump failed, the pumps were shut down upon discovery and the line was repaired the next morning.

Describe Area Affected and Cleanup Action Taken.*
The area around the SWD battery, the road and pasture were impacted by the new release, the same areas involved had been impacted by recent releases at the same location. A rig is being scheduled to determine the vertical extent under the containment and all of the impacted areas. The spill will be remediated in accordance to the NMOCD recommended guidelines for spills.

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:9/28/12 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: NOV 06 2012

Expiration Date:

Conditions of Approval:

Attached ☐

Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:** December 6th 2012

2RP-1382

* 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 Department

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

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

Incident ID	
District RP	2RP-1383
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-1383
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.248735 Longitude -103.918797
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Delaware "C" Tank Battery	Site Type Exploration and Production
Date Release Discovered 9/19/2012	API# *(if applicable)* 30-015-31412

Unit Letter	Section	Township	Range	County
G	6	24S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 650 bbls	Volume Recovered (bbls) 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A connection going from the charge pumps to the H-pump failed. The pumps were shut down upon discovery and the line was repaired. The area around the SWD battery, the road, and the pasture were impacted by the release.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1383
Facility ID	
Application ID	

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

If YES, was immediate notice given to the OCD?
Yes, by Tony Savoie to NMOCE Emergency Response #104 and Jim Amos (BLM) on 9/19/2012 at 8:52 a.m..

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1383
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-1383
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NJMW1231129593
District RP	2RP-1383
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

02/02/2021 closure DENIED Site needs additional subsurface data collection
Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings

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

nHMP1411828179

OPERATOR	☒ Initial Report	☐ Final Repor
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: Delaware "C" Tank Battery, same well pad as the PLU-153	Facility Type: Exploration and Production	

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-31412

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	6	24S	30 E	1830	North	1980	East	Eddy

Latitude N 32.248866 Longitude W 103.919096

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 200 bbls	Volume Recovered: 15 bbls
Source of Release: 3" SWD injection line	Date and Hour of Occurrence: 4/21/14 time unknown	Date and Hour of Discovery: 4/21/14 at 12:30 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD emergency #104 and the BLM	
By Whom? Tony Savoie	Date and Hour: 4/21/14 at 2:30 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
APR 24 2014
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A 3" high pressure fiberglass line coupling broke in the coupling threads. The connection was replaced.

Describe Area Affected and Cleanup Action Taken.*
The spill impacted approximately 4000 sq.ft. of pad area at the SWD location, approximately 4200 sq.ft. of pasture area and approximately 1300 sq.ft. of lease road. The spill ponded and followed a spill path almost identical to a spill at the same pump location on 5/30/12 reference 2RP-1205. The SWD is scheduled to be dismantled and the oil production battery re-located this year. There are several open C-141's for this facility that will be addressed at the time the battery is re-located.

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:4/24/14 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 4/28/14 Expiration Date: NA

Conditions of Approval:
Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 5/28/14

Attached ☐

2RP-2264

* 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 Department

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

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

Incident ID	
District RP	2RP-2264
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-2264
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.248866 Longitude -103.919096
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Delaware "C" Tank Battery	Site Type Exploration and Production
Date Release Discovered 4/21/2014	API# *(if applicable)* 30-015-31412

Unit Letter	Section	Township	Range	County
G	6	24S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 200 bbls	Volume Recovered (bbls) 15 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A 3" high pressure fiberglass line coupling broke in the coupling threads. The connection was replaced. The release impacted approximately 4000 square feet of pad area, approximately 4200 square feet of pasture area, and approximately 1300 square feet of lease road. The release ponded and followed a spill path identical to a spill at the same pump location reference 2RP-1205. The SWD is scheduled to be is dismantled, all open releases will be addressed at that time.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2264
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release volume was greater than 25 bbls.
If YES, was immediate notice given to the OCD? Yes, by Tony Savoie to NMOCD Emergency Response #104 and BLM on 4/21/2014 at 2:30 p.m.	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	2RP-2264
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2264
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nHMP1441828179
District RP	2RP-2264
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 3/20/2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

02/02/2021 closure DENIED Site needs additional subsurface data collection
Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings

ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
A proud member of WSP
Compliance · Engineering · Remediation

BH or PH Name: BH08	Date: 8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264
Logged By: JH	Method:
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	1	0.7			2'	0–12		Reddish brown clay with silt

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Carlsbad, New Mexico 88220
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BH or PH Name: BH09	Date: 8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264
Logged By: JH	Method:
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	0.8	1.0			2'	0 1 2 3 4 5 6 7 8 9 10 11 12		Reddish brown clay with silt

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BH or PH Name: BH10	Date: 8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264
Logged By: JH	Method:
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	1.2	1.9			2'	0 1 2 3 4 5 6 7 8 9 10 11 12		Reddish brown clay with silt

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BH or PH Name: BH11	Date: 8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264
Logged By: JH	Method:
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	1.0	1.4			2'	0 1 2 3 4 5 6 7 8 9 10 11 12		Reddish brown clay with silt

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BH or PH Name: BH12	Date: 8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264
Logged By: JH	Method:
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	1.6	1.8			2'	0 1 2 3 4 5 6 7 8 9 10 11 12		Reddish brown clay with silt

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Carlsbad, New Mexico 88220
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BH or PH Name: BH13	Date: 8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264
Logged By: JH	Method:
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
						1		
	7.2	1.5			2'	2		light tan, sandy loam with caliche
	6.2	0.8			3'	3		Same as above
	8.2	0.5			4'	4		Same as above
						5		
						6		
	5.2	0.4			7'	7		medium tan, sandy loam with caliche
						8		
						9		
	3.0	0.3			10'	10		Same as above
						11		
	1	0.5			12'	12		Medium tan sandy loam

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BH or PH Name: BH14	Date: 8/21/2018
Site Name: PLU Delaware C SWD	
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: JH	Method:		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
						1		
	2.6	2.7			2'	2		med. Brown silty sand loam
	1.8	2.8			3'	3		same as above
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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Carlsbad, New Mexico 88220
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BH or PH Name: BH15	Date: 8/21/2018
Site Name: PLU Delaware C SWD	
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: JH	Method:		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	2	0.5			2'	0 1 2 3 4 5 6 7 8 9 10 11 12		reddish brown clay

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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BH or PH Name: BH16	Date: 8/21/2018
Site Name: PLU Delaware C SWD	
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383
LTE Job Number:	2RP-2264

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: JH	Method:		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	1.0	0.4			2'	0–12		silt loam, sandy in parts

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

Identifier: PH 17	Date: 10.24.19
Project Name: PLU Delaware C	RP Number: 2RP- 1305, 1304, 1305, 1383, 2264
Logged By: SL	Method: Trackhoe
Hole Diameter:	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	626	0.0	N	PH17	0–1	1	SP-SM	1-2 Sand, Brown, no odor, no stain, m-f, poorly graded trace silt
D	493	0.0	N	PH17A	1–2	2		
								TD @ 2'
					2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH18	Date: 10.24.19
Project Name: PLU Delaware C	RP Number: 2RP 1205, 1304, 1305, 1383, 2264
Logged By: SL	Method: Trackhoe
Hole Diameter:	Total Depth: 21

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: ~~PID~~ Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1125 D	554	0.0	N	PH18B	0 1	1	SP-SM	1-2 sand, brown, no odor, no stain, m-f, poorly graded trace silt
1130 D	554	0.0	N	PH18A	2	2		
					3 4 5 6 7 8 9 10 11 12			TD @ 2'

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

Identifier: PH19	Date: 10.24.19
Project Name: DLU Delaware C	RP Number: 2RP. 1205, 1304, 1305, 1383, 2264
Logged By: SL	Method: Trackhoe
Hole Diameter:	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: (PID) Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	554	0.0	N	PH19	0–1	1	SP-SM	1-2 Sand, Brown no odor, m-f, poorly graded, trace silt
D	750	0.0	N	PH19A	1–2	2		
					2–12			

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

Identifier:	Date:
PH20	10.24.19
Project Name: PLU Delaware C	RP Number: 2RP 1205, 1304, 1305, 1383, 2264
Logged By: SL	Method: track hoe
Hole Diameter:	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1030 D	554	0.0	N	PH20	0	1	SP-SM	1-2 Sand, Brown, no odor, no stain, m-f, poorly graded trace silt
1055 D	342	0.0	N	PH20A	1	2		
					2			TD @ 2'
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
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Identifier: PH21	Date: 10.24.19
Project Name: PLU Delaware C	RP Number: 2RP 1205, 1304, 1305, 1383, 2264
Logged By: SL	Method: Trackhoe
Hole Diameter:	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
PLU D	179	0.0	N	PH21	0–1	1	SP-SM	1-2 Sand, Brown; no odor, no stain, m-f, poorly graded, trace silt
1205 D	1075	0.0	N	PH21A	1–2	2		
					2–12			TD @ 2'

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Carlsbad, New Mexico 88220

Identifier:	Date:
PH22	10.24.19
Project Name: PLU Delaware C	RP Number: ~~nRP~~ 1205, 1304, 1307, 1303, 2264
Logged By: SL	Method: Trackhoe
Hole Diameter:	Total Depth: 21

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	342	0.0	N	PH22	1	1	SP-SM	1-2 Sand, Brown, no odor, no stain, m-f, poorly graded, trace silt
D	150	0.0	N	PH22A	2	2		
					3			TD @ 2'
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Carlsbad, New Mexico 88220

Identifier: PH23	Date: 10.24.19
Project Name: PLU Delaware C	RP Number: 2RP 1205, 1304, 1305, 1383, 2264
Logged By: SL	Method: Track hoe
Hole Diameter:	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1245 D	991	0.0	N	PH23	0 1	1	SP-SM	1-2 Sand, Brown, no odor, no stain, m-f, poorly graded trace silt
1250 D	991	0.0	N	PH23A	2	2		TD @ 2'
					3 4 5 6 7 8 9 10 11 12			

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Identifier: PH24	Date: 10.24.19
Project Name: PLU Delaware C	RP Number: 2RP 1205, 1304, 1305, 1383, 2264
Logged By: SR	Method: Trackhoe
Hole Diameter:	Total Depth: 2'
Lat/Long:	Field Screening: PID Chloride

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1310 D	431	0.0	N	PH24	0	1	Sand	1-2 Sand, Brown, no odor, no staining, m-f, poorly graded trace silt
1324 D	~52	0.0	N	PH24A	1	2		
					2			TD @ 2'
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 3: PHOTOGRAPHIC LOGS

PHOTOGRAPHIC LOG

Photograph 1: View of lease road leading to pad – looking east.

Photograph 2: View of pad and SWD tank battery – looking west

Photograph 3: View of well vegetated western pasture area.

Photograph 4: View of pad and SWD tank battery – looking south.

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 575577

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

18-DEC-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

18-DEC-18

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

Reference: XENCO Report No(s): **575577**
Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264
Project Address: Carlsbad, 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) 575577. 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. 575577 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 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	02-06-18 15:56		575577-001
SS2	S	02-06-18 15:57		575577-002
SS3	S	02-06-18 15:59	6"	575577-003
SS4	S	02-06-18 16:01	6"	575577-004
SS5	S	02-06-18 16:02	6"	575577-005
SS6	S	02-06-18 16:04		575577-006
SS7	S	02-06-18 15:35	6"	575577-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Project ID:
Work Order Number(s): *575577*

Report Date: *18-DEC-18*
Date Received: *02/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3040647 BTEX by EPA 8021B
Lab Sample ID 575577-001 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 Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 575577-001, -002, -003, -004, -005, -007.
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.

Batch: LBA-3040738 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 575577-006.

Certificate of Analysis Summary 575577

LT Environmental, Inc., Arvada, CO

Project Name: Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Project Id:

Contact: Adrian Baker

Project Location: Carlsbad, NM

Date Received in Lab: Wed Feb-07-18 08:00 am

Report Date: 18-DEC-18

Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	575577-001		575577-002		575577-003		575577-004		575577-005		575577-006	
	Field Id:	SS1		SS2		SS3		SS4		SS5		SS6	
	Depth:					6"-		6"-		6"-			
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-06-18 15:56		Feb-06-18 15:57		Feb-06-18 15:59		Feb-06-18 16:01		Feb-06-18 16:02		Feb-06-18 16:04	
BTEX by EPA 8021B	*Extracted:*	Feb-07-18 14:10		Feb-07-18 14:10		Feb-07-18 14:10		Feb-07-18 14:10		Feb-07-18 14:10		Feb-08-18 08:45	
	Analyzed:	Feb-08-18 07:22		Feb-08-18 07:42		Feb-08-18 08:01		Feb-08-18 08:20		Feb-08-18 08:39		Feb-12-18 12:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00198	0.00198	<0.00355	0.00355
Toluene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00198	0.00198	<0.00355	0.00355
Ethylbenzene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00198	0.00198	<0.00355	0.00355
m,p-Xylenes		<0.00396	0.00396	<0.00404	0.00404	<0.00403	0.00403	<0.00402	0.00402	<0.00396	0.00396	<0.00709	0.00709
o-Xylene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00198	0.00198	<0.00355	0.00355
Total Xylenes		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00198	0.00198	<0.00355	0.00355
Total BTEX		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00198	0.00198	<0.00355	0.00355
Inorganic Anions by EPA 300	*Extracted:*	Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00	
	Analyzed:	Feb-13-18 19:46		Feb-13-18 19:53		Feb-13-18 20:14		Feb-13-18 20:21		Feb-13-18 20:28		Feb-13-18 20:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2140	24.9	6270	49.8	23.2	4.93	<4.99	4.99	<4.99	4.99	<4.98	4.98
TPH by SW8015 Mod	*Extracted:*	Feb-07-18 09:00		Feb-07-18 09:00		Feb-07-18 09:00		Feb-07-18 09:00		Feb-07-18 09:00		Feb-07-18 09:00	
	Analyzed:	Feb-07-18 16:00		Feb-07-18 16:40		Feb-07-18 16:59		Feb-07-18 17:19		Feb-07-18 17:39		Feb-07-18 17:59	
	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)		58.1	15.0	25.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		37.3	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		95.4	15.0	25.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 575577

LT Environmental, Inc., Arvada, CO

Project Name: Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Wed Feb-07-18 08:00 am
Report Date: 18-DEC-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	575577-007					
	Field Id:	SS7					
	Depth:	6"-					
	Matrix:	SOIL					
	Sampled:	Feb-06-18 15:35					
BTEX by EPA 8021B	***Extracted:***	Feb-07-18 14:10					
	Analyzed:	Feb-08-18 09:17					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Inorganic Anions by EPA 300	***Extracted:***	Feb-13-18 15:00					
	Analyzed:	Feb-13-18 20:42					
	Units/RL:	mg/kg	RL				
Chloride		2260	24.9				
TPH by SW8015 Mod	***Extracted:***	Feb-07-18 09:00					
	Analyzed:	Feb-07-18 18:19					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9				
Diesel Range Organics (DRO)		1840	14.9				
Motor Oil Range Hydrocarbons (MRO)		410	14.9				
Total TPH		2250	14.9				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-001	Date Collected:	02.06.18 15.56		

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2140**	24.9	mg/kg	02.13.18 19.46		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.07.18 09.00	Basis:	Wet Weight
Seq Number:	3040461				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.07.18 16.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	**58.1**	15.0	mg/kg	02.07.18 16.00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**37.3**	15.0	mg/kg	02.07.18 16.00		1
Total TPH	PHC635	**95.4**	15.0	mg/kg	02.07.18 16.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.07.18 16.00	
o-Terphenyl	84-15-1	100	%	70-135	02.07.18 16.00	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-001	Date Collected:	02.06.18 15.56		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.08.18 07.22	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.08.18 07.22	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.08.18 07.22	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.08.18 07.22	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.08.18 07.22	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.08.18 07.22	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.08.18 07.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.08.18 07.22	
4-Bromofluorobenzene	460-00-4	92	%	80-120	02.08.18 07.22	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-002	Date Collected:	02.06.18 15.57		

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6270**	49.8	mg/kg	02.13.18 19.53		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.07.18 09.00	Basis:	Wet Weight
Seq Number:	3040461				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.07.18 16.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**25.2**	15.0	mg/kg	02.07.18 16.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.07.18 16.40	U	1
Total TPH	PHC635	**25.2**	15.0	mg/kg	02.07.18 16.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.07.18 16.40	
o-Terphenyl	84-15-1	90	%	70-135	02.07.18 16.40	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-002	Date Collected:	02.06.18 15.57		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	02.08.18 07.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.08.18 07.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	80-120	02.08.18 07.42	
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.08.18 07.42	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-003	Date Collected:	02.06.18 15.59	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.2**	4.93	mg/kg	02.13.18 20.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.07.18 09.00	Basis:	Wet Weight
Seq Number:	3040461				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.07.18 16.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.07.18 16.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.07.18 16.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.07.18 16.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.07.18 16.59	
o-Terphenyl	84-15-1	96	%	70-135	02.07.18 16.59	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-003	Date Collected:	02.06.18 15.59	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.08.18 08.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.08.18 08.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.08.18 08.01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.08.18 08.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.08.18 08.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.08.18 08.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.08.18 08.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.08.18 08.01	
4-Bromofluorobenzene	460-00-4	98	%	80-120	02.08.18 08.01	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-004	Date Collected:	02.06.18 16.01	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	02.13.18 20.21	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.07.18 09.00	Basis:	Wet Weight
Seq Number:	3040461				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.07.18 17.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.07.18 17.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.07.18 17.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.07.18 17.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.07.18 17.19	
o-Terphenyl	84-15-1	92	%	70-135	02.07.18 17.19	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-004	Date Collected:	02.06.18 16.01	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.08.18 08.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.08.18 08.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.08.18 08.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.08.18 08.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.08.18 08.20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.08.18 08.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.08.18 08.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	80-120	02.08.18 08.20	
1,4-Difluorobenzene	540-36-3	89	%	80-120	02.08.18 08.20	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-005	Date Collected:	02.06.18 16.02	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	02.13.18 20.28	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.07.18 09.00	Basis:	Wet Weight
Seq Number:	3040461				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.07.18 17.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.07.18 17.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.07.18 17.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.07.18 17.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.07.18 17.39	
o-Terphenyl	84-15-1	90	%	70-135	02.07.18 17.39	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-005	Date Collected:	02.06.18 16.02	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.08.18 08.39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.08.18 08.39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.08.18 08.39	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.08.18 08.39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.08.18 08.39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.08.18 08.39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.08.18 08.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	80-120	02.08.18 08.39	
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.08.18 08.39	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-006	Date Collected:	02.06.18 16.04		

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	02.13.18 20.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.07.18 09.00	Basis:	Wet Weight
Seq Number:	3040461				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.07.18 17.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.07.18 17.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.07.18 17.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.07.18 17.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.07.18 17.59	
o-Terphenyl	84-15-1	90	%	70-135	02.07.18 17.59	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-006	Date Collected:	02.06.18 16.04		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00355	0.00355	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00355	0.00355	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00355	0.00355	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00709	0.00709	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00355	0.00355	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00355	0.00355	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00355	0.00355	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	78	%	80-120	02.12.18 12.11	**
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.12.18 12.11	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-007	Date Collected:	02.06.18 15.35	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2260**	24.9	mg/kg	02.13.18 20.42		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.07.18 09.00	Basis:	Wet Weight
Seq Number:	3040461				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.07.18 18.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1840**	14.9	mg/kg	02.07.18 18.19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**410**	14.9	mg/kg	02.07.18 18.19		1
Total TPH	PHC635	**2250**	14.9	mg/kg	02.07.18 18.19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.07.18 18.19	
o-Terphenyl	84-15-1	117	%	70-135	02.07.18 18.19	

Certificate of Analytical Results 575577

LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575577-007	Date Collected:	02.06.18 15.35	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.08.18 09.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.08.18 09.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.08.18 09.17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.08.18 09.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.08.18 09.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.08.18 09.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.08.18 09.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.08.18 09.17	
4-Bromofluorobenzene	460-00-4	94	%	80-120	02.08.18 09.17	

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 575577

LT Environmental, Inc.

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040997 — Matrix: Solid — Date Prep: 02.13.18
MB Sample Id: 7639086-1-BLK — LCS Sample Id: 7639086-1-BKS — LCSD Sample Id: 7639086-1-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	274	110	271	108	90-110	1	20	mg/kg	02.13.18 18:57	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040997 — Matrix: Soil — Date Prep: 02.13.18
Parent Sample Id: 575576-004 — MS Sample Id: 575576-004 S — MSD Sample Id: 575576-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	250	296	109	310	115	90-110	5	20	mg/kg	02.13.18 19:18	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040997 — Matrix: Soil — Date Prep: 02.13.18
Parent Sample Id: 575578-001 — MS Sample Id: 575578-001 S — MSD Sample Id: 575578-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	701	249	940	96	960	104	90-110	2	20	mg/kg	02.13.18 20:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3040461 — Matrix: Solid — Date Prep: 02.07.18
MB Sample Id: 7638719-1-BLK — LCS Sample Id: 7638719-1-BKS — LCSD Sample Id: 7638719-1-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)	<8.00	1000	972	97	1090	109	70-135	11	35	mg/kg	02.07.18 09:31	
Diesel Range Organics (DRO)	<8.13	1000	1100	110	1150	115	70-135	4	35	mg/kg	02.07.18 09:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		109		129		70-135	%	02.07.18 09:31
o-Terphenyl	111		107		114		70-135	%	02.07.18 09:31

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 575577

LT Environmental, Inc.

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3040461 — Matrix: Soil — Date Prep: 02.07.18
Parent Sample Id: 575430-001 — MS Sample Id: 575430-001 S — MSD Sample Id: 575430-001 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)	<7.99	998	974	98	1090	109	70-135	11	35	mg/kg	02.07.18 10:34	
Diesel Range Organics (DRO)	14.4	998	1000	99	1120	111	70-135	11	35	mg/kg	02.07.18 10:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		118		70-135	%	02.07.18 10:34
o-Terphenyl	112		100		70-135	%	02.07.18 10:34

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3040647 — Matrix: Solid — Date Prep: 02.07.18
MB Sample Id: 7638867-1-BLK — LCS Sample Id: 7638867-1-BKS — LCSD Sample Id: 7638867-1-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	0.0789	78	0.0706	71	70-130	11	35	mg/kg	02.07.18 23:07	
Toluene	<0.00202	0.101	0.0831	82	0.0737	74	70-130	12	35	mg/kg	02.07.18 23:07	
Ethylbenzene	<0.00202	0.101	0.0937	93	0.0851	85	71-129	10	35	mg/kg	02.07.18 23:07	
m,p-Xylenes	<0.00403	0.202	0.184	91	0.168	84	70-135	9	35	mg/kg	02.07.18 23:07	
o-Xylene	<0.00202	0.101	0.0921	91	0.0858	86	71-133	7	35	mg/kg	02.07.18 23:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		90		90		80-120	%	02.07.18 23:07
4-Bromofluorobenzene	102		102		112		80-120	%	02.07.18 23:07

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3040738 — Matrix: Solid — Date Prep: 02.08.18
MB Sample Id: 7638875-1-BLK — LCS Sample Id: 7638875-1-BKS — LCSD Sample Id: 7638875-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0821	83	0.0760	76	70-130	8	35	mg/kg	02.12.18 12:11	
Toluene	<0.00199	0.0994	0.0844	85	0.0813	81	70-130	4	35	mg/kg	02.12.18 12:11	
Ethylbenzene	<0.00199	0.0994	0.0895	90	0.0861	86	71-129	4	35	mg/kg	02.12.18 12:11	
m,p-Xylenes	<0.00398	0.199	0.174	87	0.167	84	70-135	4	35	mg/kg	02.12.18 12:11	
o-Xylene	<0.00199	0.0994	0.0884	89	0.0855	86	71-133	3	35	mg/kg	02.12.18 12:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		95		93		80-120	%	02.12.18 12:11
4-Bromofluorobenzene	98		102		99		80-120	%	02.12.18 12:11

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 575577

LT Environmental, Inc.

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3040647 Matrix: Soil Date Prep: 02.07.18

Parent Sample Id: 575577-001 MS Sample Id: 575577-001 S MSD Sample Id: 575577-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0703	70	0.0632	63	70-130	11	35	mg/kg	02.07.18 23:45	X
Toluene	<0.00200	0.0998	0.0700	70	0.0624	62	70-130	11	35	mg/kg	02.07.18 23:45	X
Ethylbenzene	<0.00200	0.0998	0.0719	72	0.0618	62	71-129	15	35	mg/kg	02.07.18 23:45	X
m,p-Xylenes	<0.00399	0.200	0.139	70	0.119	59	70-135	16	35	mg/kg	02.07.18 23:45	X
o-Xylene	<0.00200	0.0998	0.0724	73	0.0629	63	71-133	14	35	mg/kg	02.07.18 23:45	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		87		80-120	%	02.07.18 23:45
4-Bromofluorobenzene	106		99		80-120	%	02.07.18 23:45

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3040738 Matrix: Soil Date Prep: 02.08.18

Parent Sample Id: 575578-002 MS Sample Id: 575578-002 S MSD Sample Id: 575578-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.103	102	0.125	125	70-130	19	35	mg/kg	02.12.18 12:11	
Toluene	<0.00202	0.101	0.0648	64	0.0677	68	70-130	4	35	mg/kg	02.12.18 12:11	X
Ethylbenzene	<0.00202	0.101	0.0603	60	0.0673	67	71-129	11	35	mg/kg	02.12.18 12:11	X
m,p-Xylenes	<0.00404	0.202	0.117	58	0.131	65	70-135	11	35	mg/kg	02.12.18 12:11	X
o-Xylene	<0.00202	0.101	0.0605	60	0.0674	67	71-133	11	35	mg/kg	02.12.18 12:11	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		96		80-120	%	02.12.18 12:11
4-Bromofluorobenzene	106		100		80-120	%	02.12.18 12:11

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

Page 1 Of 1

Revision 2016.1

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Xenco Quote #

Xenco Job # 575577

Client / Reporting Information

Company Name / Branch: LTE

Company Address: 3300 North A St Bldg 1 #103

Email: abaker@ltenv.com Phone No: 432-894-5641

Project Contact: Adrian Baker

Samplers's Name: Adrian Baker

Project Information

Project Name/Number: Delaware C SWD 2RP-1305, 1304, 1303, 1205, 2264

Project Location: Carlsbad, NM

Invoice To: XTO Energy, Kyle Littrell

PO Number: 30-015-31412

Analytical Information

No.	Field ID / Point of 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 8021	TPH Method 8015 DRO, GRO MRO	Chloride 300.1	Field Comments
1	SS1	surface	2/6	356	S	1									X	X	X	
2	SS2	surface		357											X	X	X	
3	SS3	6"		359											X	X	X	
4	SS4	6"		401											X	X	X	
5	SS5	6"		402											X	X	X	
6	SS6	surface		404											X	X	X	
7	SS7	6"		335											X	X	X	
8																		
9																		
10																		

NFE AMB

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

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

FED-E)

Notes:

Temp: 4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.8

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		2/6/18 615	1	2	2/7/18 8:10 am	2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: Y

Cooler Temp. Thermo. Corr. Factor

Analytical Report 596449

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Deleware C SWD

27-AUG-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
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)

27-AUG-18

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

Reference: XENCO Report No(s): **596449**
PLU Deleware C SWD
Project Address: NM. Eddy 2RP-1305,1383 1304

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) 596449. 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. 596449 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 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	08-17-18 10:15	14 ft	596449-001
BH02	S	08-17-18 11:30	5.5 ft	596449-002
BH03	S	08-17-18 11:45	4 ft	596449-003
BH04	S	08-17-18 12:15	9.5 ft	596449-004
BH05	S	08-17-18 13:50	6 ft	596449-005
BH06	S	08-17-18 15:00	9 ft	596449-006
BH07	S	08-17-18 16:10	12 ft	596449-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Deleware C SWD

Project ID:
Work Order Number(s): *596449*

Report Date: *27-AUG-18*
Date Received: *08/21/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061313 BTEX by EPA 8021B

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

Certificate of Analysis Summary 596449

LT Environmental, Inc., Arvada, CO

Project Name: PLU Deleware C SWD

Project Id:
Contact: Adrian Baker
Project Location: NM. Eddy 2RP-1305,1383 1304

Date Received in Lab: Tue Aug-21-18 10:35 am
Report Date: 27-AUG-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	596449-001		596449-002		596449-003		596449-004		596449-005		596449-006	
	Field Id:	BH01		BH02		BH03		BH04		BH05		BH06	
	Depth:	14- ft		5.5- ft		4- ft		9.5- ft		6- ft		9- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-17-18 10:15		Aug-17-18 11:30		Aug-17-18 11:45		Aug-17-18 12:15		Aug-17-18 13:50		Aug-17-18 15:00	
BTEX by EPA 8021B	***Extracted:***	Aug-25-18 10:30		Aug-25-18 10:30		Aug-25-18 10:30		Aug-25-18 10:30		Aug-25-18 10:30		Aug-25-18 10:30	
	Analyzed:	Aug-26-18 10:04		Aug-26-18 10:25		Aug-26-18 10:46		Aug-26-18 11:07		Aug-26-18 12:10		Aug-26-18 12:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00401	0.00401	<0.00399	0.00399	<0.00402	0.00402	<0.00400	0.00400
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Aug-21-18 17:30		Aug-21-18 17:30		Aug-21-18 17:30		Aug-21-18 17:30		Aug-21-18 17:30		Aug-21-18 17:30	
	Analyzed:	Aug-21-18 21:57		Aug-21-18 22:02		Aug-21-18 22:19		Aug-21-18 22:24		Aug-21-18 22:40		Aug-21-18 22:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		77.2	4.96	74.4	4.96	51.7	4.96	188	4.96	172	4.95	71.6	4.99
TPH by SW8015 Mod	***Extracted:***	Aug-21-18 16:00		Aug-21-18 16:00		Aug-21-18 16:00		Aug-21-18 16:00		Aug-21-18 16:00		Aug-21-18 16:00	
	Analyzed:	Aug-21-18 23:13		Aug-21-18 23:33		Aug-21-18 23:52		Aug-22-18 00:52		Aug-22-18 01:11		Aug-22-18 01:31	
	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	<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	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 596449

LT Environmental, Inc., Arvada, CO

Project Name: PLU Deleware C SWD

Project Id:
Contact: Adrian Baker
Project Location: NM. Eddy 2RP-1305,1383 1304

Date Received in Lab: Tue Aug-21-18 10:35 am
Report Date: 27-AUG-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	596449-007					
	Field Id:	BH07					
	Depth:	12- ft					
	Matrix:	SOIL					
	Sampled:	Aug-17-18 16:10					
BTEX by EPA 8021B	***Extracted:***	Aug-25-18 10:30					
	Analyzed:	Aug-26-18 12:52					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Inorganic Anions by EPA 300	***Extracted:***	Aug-21-18 17:30					
	Analyzed:	Aug-21-18 22:51					
	Units/RL:	mg/kg	RL				
Chloride		2550	24.9				
TPH by SW8015 Mod	***Extracted:***	Aug-21-18 16:00					
	Analyzed:	Aug-22-18 01:50					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9				
Diesel Range Organics (DRO)		<14.9	14.9				
Oil Range Hydrocarbons (ORO)		<14.9	14.9				
Total TPH		<14.9	14.9				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH01** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-001 Date Collected: 08.17.18 10.15 Sample Depth:14 ft

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

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 08.21.18 17.30 Basis: Wet Weight

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**77.2**	4.96	mg/kg	08.21.18 21.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 08.21.18 16.00 Basis: Wet Weight

Seq Number: 3060852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.21.18 23.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.21.18 23.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.21.18 23.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.21.18 23.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.21.18 23.13	
o-Terphenyl	84-15-1	90	%	70-135	08.21.18 23.13	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-001	Date Collected:	08.17.18 10.15	Sample Depth:	14 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.26.18 10.04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.26.18 10.04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.26.18 10.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.26.18 10.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.26.18 10.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.26.18 10.04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.26.18 10.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.26.18 10.04	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.26.18 10.04	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-002	Date Collected:	08.17.18 11.30	Sample Depth:	5.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.21.18 17.30	Basis:	Wet Weight
Seq Number:	3060822				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**74.4**	4.96	mg/kg	08.21.18 22.02		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.21.18 16.00	Basis:	Wet Weight
Seq Number:	3060852				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.21.18 23.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.21.18 23.33	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.21.18 23.33	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.21.18 23.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.21.18 23.33	
o-Terphenyl	84-15-1	90	%	70-135	08.21.18 23.33	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-002	Date Collected:	08.17.18 11.30	Sample Depth:	5.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.26.18 10.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.26.18 10.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.26.18 10.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.26.18 10.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.26.18 10.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.26.18 10.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.26.18 10.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.26.18 10.25	
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.26.18 10.25	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-003	Date Collected:	08.17.18 11.45	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.21.18 17.30	Basis:	Wet Weight
Seq Number:	3060822				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**51.7**	4.96	mg/kg	08.21.18 22.19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.21.18 16.00	Basis:	Wet Weight
Seq Number:	3060852				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.21.18 23.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.21.18 23.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.21.18 23.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.21.18 23.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.21.18 23.52	
o-Terphenyl	84-15-1	86	%	70-135	08.21.18 23.52	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-003	Date Collected:	08.17.18 11.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.18 10.46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.18 10.46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.18 10.46	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.26.18 10.46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.18 10.46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.18 10.46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.18 10.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.26.18 10.46	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.26.18 10.46	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH04** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-004 Date Collected: 08.17.18 12.15 Sample Depth:9.5 ft

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

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 08.21.18 17.30 Basis: Wet Weight

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**188**	4.96	mg/kg	08.21.18 22.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 08.21.18 16.00 Basis: Wet Weight

Seq Number: 3060852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.22.18 00.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.22.18 00.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.22.18 00.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.22.18 00.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.22.18 00.52	
o-Terphenyl	84-15-1	86	%	70-135	08.22.18 00.52	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-004	Date Collected:	08.17.18 12.15	Sample Depth:	9.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.18 11.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.18 11.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.18 11.07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.26.18 11.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.18 11.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.18 11.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.18 11.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.26.18 11.07	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.26.18 11.07	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH05** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-005 Date Collected: 08.17.18 13.50 Sample Depth:6 ft

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

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 08.21.18 17.30 Basis: Wet Weight

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**172**	4.95	mg/kg	08.21.18 22.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 08.21.18 16.00 Basis: Wet Weight

Seq Number: 3060852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.22.18 01.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.22.18 01.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.22.18 01.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.22.18 01.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.22.18 01.11	
o-Terphenyl	84-15-1	87	%	70-135	08.22.18 01.11	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-005	Date Collected:	08.17.18 13.50	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.26.18 12.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.26.18 12.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.26.18 12.10	
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.26.18 12.10	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-006	Date Collected:	08.17.18 15.00	Sample Depth:	9 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.21.18 17.30	Basis:	Wet Weight
Seq Number:	3060822				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**71.6**	4.99	mg/kg	08.21.18 22.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.21.18 16.00	Basis:	Wet Weight
Seq Number:	3060852				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.22.18 01.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.22.18 01.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.22.18 01.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.22.18 01.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.22.18 01.31	
o-Terphenyl	84-15-1	85	%	70-135	08.22.18 01.31	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-006	Date Collected:	08.17.18 15.00	Sample Depth:	9 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.18 12.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.18 12.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.18 12.31	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.26.18 12.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.18 12.31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.18 12.31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.18 12.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	08.26.18 12.31	
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.26.18 12.31	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH07** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-007 Date Collected: 08.17.18 16.10 Sample Depth:12 ft

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

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 08.21.18 17.30 Basis: Wet Weight

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2550**	24.9	mg/kg	08.21.18 22.51		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 08.21.18 16.00 Basis: Wet Weight

Seq Number: 3060852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.22.18 01.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.22.18 01.50	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.22.18 01.50	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.22.18 01.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.22.18 01.50	
o-Terphenyl	84-15-1	88	%	70-135	08.22.18 01.50	

Certificate of Analytical Results 596449

LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	08.21.18 10.35
Lab Sample Id:	596449-007	Date Collected:	08.17.18 16.10	Sample Depth:	12 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.18 12.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.18 12.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.18 12.52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.26.18 12.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.18 12.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.18 12.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.18 12.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	08.26.18 12.52	
4-Bromofluorobenzene	460-00-4	75	%	70-130	08.26.18 12.52	

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 596449

LT Environmental, Inc.

PLU Deleware C SWD

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3060822 — Matrix: Solid — Date Prep: 08.21.18
MB Sample Id: 7660857-1-BLK — LCS Sample Id: 7660857-1-BKS — LCSD Sample Id: 7660857-1-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	250	100	249	100	90-110	0	20	mg/kg	08.21.18 20:35	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3060822 — Matrix: Soil — Date Prep: 08.21.18
Parent Sample Id: 596446-008 — MS Sample Id: 596446-008 S — MSD Sample Id: 596446-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	351	250	584	93	586	94	90-110	0	20	mg/kg	08.21.18 20:51	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3060822 — Matrix: Soil — Date Prep: 08.21.18
Parent Sample Id: 596449-002 — MS Sample Id: 596449-002 S — MSD Sample Id: 596449-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	74.4	248	325	101	324	101	90-110	0	20	mg/kg	08.21.18 22:08	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3060852 — Matrix: Solid — Date Prep: 08.21.18
MB Sample Id: 7660865-1-BLK — LCS Sample Id: 7660865-1-BKS — LCSD Sample Id: 7660865-1-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	984	98	1000	100	70-135	2	20	mg/kg	08.21.18 19:38	
Diesel Range Organics (DRO)	<15.0	1000	989	99	1000	100	70-135	1	20	mg/kg	08.21.18 19:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		119		121		70-135	%	08.21.18 19:38
o-Terphenyl	95		102		102		70-135	%	08.21.18 19:38

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 596449

LT Environmental, Inc.

PLU Deleware C SWD

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3060852 | Matrix: Soil | Date Prep: 08.21.18
Parent Sample Id: 596317-009 | MS Sample Id: 596317-009 S | MSD Sample Id: 596317-009 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	1000	100	995	100	70-135	1	20	mg/kg	08.22.18 06:58	
Diesel Range Organics (DRO)	<15.0	1000	1030	103	1010	101	70-135	2	20	mg/kg	08.22.18 06:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		125		70-135	%	08.22.18 06:58
o-Terphenyl	102		102		70-135	%	08.22.18 06:58

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3061313 | Matrix: Solid | Date Prep: 08.25.18
MB Sample Id: 7661181-1-BLK | LCS Sample Id: 7661181-1-BKS | LCSD Sample Id: 7661181-1-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	0.0935	94	0.101	100	70-130	8	35	mg/kg	08.26.18 02:22	
Toluene	<0.00200	0.100	0.0863	86	0.0948	94	70-130	9	35	mg/kg	08.26.18 02:22	
Ethylbenzene	<0.00200	0.100	0.0976	98	0.104	103	70-130	6	35	mg/kg	08.26.18 02:22	
m,p-Xylenes	<0.00401	0.200	0.217	109	0.233	116	70-130	7	35	mg/kg	08.26.18 02:22	
o-Xylene	<0.00200	0.100	0.106	106	0.114	113	70-130	7	35	mg/kg	08.26.18 02:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		107		109		70-130	%	08.26.18 02:22
4-Bromofluorobenzene	112		106		115		70-130	%	08.26.18 02:22

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3061313 | Matrix: Soil | Date Prep: 08.25.18
Parent Sample Id: 596319-008 | MS Sample Id: 596319-008 S | MSD Sample Id: 596319-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0734	73	0.0633	63	70-130	15	35	mg/kg	08.26.18 03:04	X
Toluene	<0.00202	0.101	0.0649	64	0.0571	57	70-130	13	35	mg/kg	08.26.18 03:04	X
Ethylbenzene	<0.00202	0.101	0.0672	67	0.0608	61	70-130	10	35	mg/kg	08.26.18 03:04	X
m,p-Xylenes	<0.00403	0.202	0.148	73	0.131	66	70-130	12	35	mg/kg	08.26.18 03:04	X
o-Xylene	<0.00202	0.101	0.0689	68	0.0592	59	70-130	15	35	mg/kg	08.26.18 03:04	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		70-130	%	08.26.18 03:04
4-Bromofluorobenzene	101		124		70-130	%	08.26.18 03:04

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES
Setting the Standard since 1990
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 # 596449

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office
Company Address: 2300 N "A" St., Building 1, unit #103 Midland TX 79705
Email: abaker@ltenv.com Phone No: 432-794-5178
Project Contact: Adrian Baker
Samplers's Name: Lynda Lambert

Project Information

Project Name/Number: PLU Delaware CSWD
Project Location: NM - Eddy 2RP-1305, 1383, 1304
Invoice To: XTO Energy Kyle Littrell
PO Number:

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 8021 (only BTEX)	TPH (MRO, GRO, DRO) 8015	Chloride (300.0)	Field Comments
1	BH01	14'	8/17/18	10:15	S	1								X	X	X	X	
2	BH02	5.5'	"	11:30	S	1								X	X	X	X	
3	BH03	4'		11:45	S	1								X	X	X	X	
4	BH04	9.5'		12:15	S	1								X	X	X	X	
5	BH05	6'		13:50	S	1								X	X	X	X	
6	BH06	9'		15:00	S	1								X	X	X	X	
7	BH07	12'	V	16:10	S	1								X	X	X	X	
8																		
9																		
10																		

Turnaround Time (Business days)

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

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 # 773018976966

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		8/20/18 9:45	Timothy P. Elliott	2	8/20/18 15:30	
3			3	4		4
5			5	Custody Seal #	Preserved where applicable	On Ice: X

8/21/18 1035

Cooler Temp: 0.5 Thermo. Corr. Factor

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: 08/21/2018 10:35:00 AM

Work Order #: 596449

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)?	.5
#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: 08/21/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/22/2018
Jessica Kramer

Analytical Report 596788

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Delaware C SWD

10-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
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-SEP-18

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

Reference: XENCO Report No(s): **596788**
PLU Delaware C SWD
Project Address: Carlsbad, 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) 596788. 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. 596788 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.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH14	S	08-21-18 09:20	3 ft	596788-001
BH15	S	08-21-18 09:45	2 ft	596788-002
BH16	S	08-21-18 11:30	2 ft	596788-003
SS12	S	08-21-18 11:10	6 In	596788-004
SS13	S	08-21-18 11:15	6 In	596788-005
SS14	S	08-21-18 11:20	6 In	596788-006
SS15	S	08-21-18 11:25	6 In	596788-007
SS16	S	08-21-18 11:30	6 In	596788-008

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Delaware C SWD

Project ID:
Work Order Number(s): *596788*

Report Date: *10-SEP-18*
Date Received: *08/23/2018*

Sample receipt non conformances and comments:

PER CLIENT EMAIL, CORRECTED SAMPLE NAMES FOR SAMPLE 004,005,006,007,008 JKR 09/10/18 NEW VERSION GENERATED

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061313 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3061437 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3061634 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 596788

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C SWD

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am
Report Date: 10-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	596788-001		596788-002		596788-003		596788-004		596788-005		596788-006	
	Field Id:	BH14		BH15		BH16		SS12		SS13		SS14	
	Depth:	3- ft		2- ft		2- ft		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-21-18 09:20		Aug-21-18 09:45		Aug-21-18 11:30		Aug-21-18 11:10		Aug-21-18 11:15		Aug-21-18 11:20	
BTEX by EPA 8021B	*Extracted:*	Aug-28-18 08:00		Aug-28-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00	
	Analyzed:	Aug-28-18 17:43		Aug-28-18 18:04		Aug-29-18 11:18		Aug-29-18 11:38		Aug-29-18 11:58		Aug-29-18 12:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402	<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Inorganic Anions by EPA 300	*Extracted:*	Aug-23-18 16:45		Aug-23-18 16:45		Aug-23-18 16:45		Aug-23-18 16:45		Aug-23-18 16:45		Aug-23-18 16:45	
	Analyzed:	Aug-23-18 21:20		Aug-23-18 21:42		Aug-23-18 21:58		Aug-23-18 22:04		Aug-23-18 22:09		Aug-23-18 22:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		317	4.98	1080	4.97	453	4.96	1800	24.9	258	4.95	183	4.96
TPH by SW8015 Mod	*Extracted:*	Aug-24-18 07:00		Aug-24-18 07:00		Aug-24-18 07:00		Aug-24-18 07:00		Aug-24-18 07:00		Aug-24-18 07:00	
	Analyzed:	Aug-24-18 09:31		Aug-24-18 09:51		Aug-24-18 10:52		Aug-24-18 11:11		Aug-24-18 11:31		Aug-24-18 11:51	
	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	<15.0	15.0	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		60.7	15.0	<15.0	15.0	20.6	14.9	81.5	15.0	15.5	14.9	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total TPH		60.7	15.0	<15.0	15.0	20.6	14.9	81.5	15.0	15.5	14.9	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 596788

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C SWD

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am
Report Date: 10-SEP-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	596788-007		596788-008					
	Field Id:	SS15		SS16					
	Depth:	6- In		6- In					
	Matrix:	SOIL		SOIL					
	Sampled:	Aug-21-18 11:25		Aug-21-18 11:30					
BTEX by EPA 8021B	***Extracted:***	Aug-25-18 10:30		Aug-29-18 08:00					
	Analyzed:	Aug-26-18 15:17		Aug-29-18 13:00					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00201	0.00201				
Toluene		<0.00201	0.00201	<0.00201	0.00201				
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201				
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402				
o-Xylene		<0.00201	0.00201	<0.00201	0.00201				
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201				
Total BTEX		<0.00201	0.00201	<0.00201	0.00201				
Inorganic Anions by EPA 300	***Extracted:***	Aug-23-18 16:45		Aug-23-18 16:45					
	Analyzed:	Aug-23-18 22:20		Aug-23-18 22:26					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		82.0	4.95	491	24.8				
TPH by SW8015 Mod	***Extracted:***	Aug-24-18 07:00		Aug-24-18 07:00					
	Analyzed:	Aug-24-18 12:11		Aug-24-18 12:32					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0				
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH14**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-001	Date Collected:	08.21.18 09.20	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**317**	4.98	mg/kg	08.23.18 21.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 09.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	**60.7**	15.0	mg/kg	08.24.18 09.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 09.31	U	1
Total TPH	PHC635	**60.7**	15.0	mg/kg	08.24.18 09.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.24.18 09.31	
o-Terphenyl	84-15-1	92	%	70-135	08.24.18 09.31	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH14**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-001	Date Collected:	08.21.18 09.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.28.18 08.00	Basis:	Wet Weight
Seq Number:	3061437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.28.18 17.43	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.28.18 17.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	08.28.18 17.43	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.28.18 17.43	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH15**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-002	Date Collected:	08.21.18 09.45	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1080**	4.97	mg/kg	08.23.18 21.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 09.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 09.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 09.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 09.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	08.24.18 09.51	
o-Terphenyl	84-15-1	85	%	70-135	08.24.18 09.51	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH15**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-002	Date Collected:	08.21.18 09.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.28.18 08.00	Basis:	Wet Weight
Seq Number:	3061437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.28.18 18.04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.28.18 18.04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.28.18 18.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.28.18 18.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.28.18 18.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.28.18 18.04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.28.18 18.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	08.28.18 18.04	
1,4-Difluorobenzene	540-36-3	94	%	70-130	08.28.18 18.04	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH16**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-003	Date Collected:	08.21.18 11.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**453**	4.96	mg/kg	08.23.18 21.58		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.24.18 10.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	**20.6**	14.9	mg/kg	08.24.18 10.52		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.24.18 10.52	U	1
Total TPH	PHC635	**20.6**	14.9	mg/kg	08.24.18 10.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.24.18 10.52	
o-Terphenyl	84-15-1	95	%	70-135	08.24.18 10.52	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH16**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-003	Date Collected:	08.21.18 11.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.18 11.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.18 11.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.18 11.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.18 11.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.18 11.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.18 11.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.18 11.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.29.18 11.18	
1,4-Difluorobenzene	540-36-3	119	%	70-130	08.29.18 11.18	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-004	Date Collected:	08.21.18 11.10	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1800**	24.9	mg/kg	08.23.18 22.04		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 11.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	**81.5**	15.0	mg/kg	08.24.18 11.11		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 11.11	U	1
Total TPH	PHC635	**81.5**	15.0	mg/kg	08.24.18 11.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.24.18 11.11	
o-Terphenyl	84-15-1	99	%	70-135	08.24.18 11.11	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-004	Date Collected:	08.21.18 11.10	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.18 11.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.18 11.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.18 11.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.18 11.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.18 11.38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.18 11.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.18 11.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.29.18 11.38	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.29.18 11.38	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS13**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-005	Date Collected:	08.21.18 11.15	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**258**	4.95	mg/kg	08.23.18 22.09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.24.18 11.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	**15.5**	14.9	mg/kg	08.24.18 11.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.24.18 11.31	U	1
Total TPH	PHC635	**15.5**	14.9	mg/kg	08.24.18 11.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.24.18 11.31	
o-Terphenyl	84-15-1	97	%	70-135	08.24.18 11.31	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS13**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-005	Date Collected:	08.21.18 11.15	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.18 11.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.18 11.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.18 11.58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.29.18 11.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.18 11.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.18 11.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.18 11.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	08.29.18 11.58	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.29.18 11.58	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-006	Date Collected:	08.21.18 11.20	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**183**	4.96	mg/kg	08.23.18 22.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 11.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 11.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 11.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 11.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.24.18 11.51	
o-Terphenyl	84-15-1	100	%	70-135	08.24.18 11.51	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-006	Date Collected:	08.21.18 11.20	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.18 12.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.18 12.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.18 12.19	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.29.18 12.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.18 12.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.18 12.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.18 12.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	08.29.18 12.19	
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.29.18 12.19	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS15**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-007	Date Collected:	08.21.18 11.25	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**82.0**	4.95	mg/kg	08.23.18 22.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 12.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 12.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 12.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.24.18 12.11	
o-Terphenyl	84-15-1	95	%	70-135	08.24.18 12.11	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS15**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-007	Date Collected:	08.21.18 11.25	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.25.18 10.30	Basis:	Wet Weight
Seq Number:	3061313				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.26.18 15.17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.26.18 15.17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.26.18 15.17	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.26.18 15.17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.26.18 15.17	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.26.18 15.17	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.26.18 15.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.26.18 15.17	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.26.18 15.17	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS16**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-008	Date Collected:	08.21.18 11.30	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.23.18 16.45	Basis:	Wet Weight
Seq Number:	3061062				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**491**	24.8	mg/kg	08.23.18 22.26		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 12.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 12.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 12.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 12.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.24.18 12.32	
o-Terphenyl	84-15-1	95	%	70-135	08.24.18 12.32	

Certificate of Analytical Results 596788

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS16**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596788-008	Date Collected:	08.21.18 11.30	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.18 13.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.18 13.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.18 13.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.18 13.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.18 13.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.18 13.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.18 13.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	08.29.18 13.00	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.29.18 13.00	

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 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061062 — Matrix: Solid — Date Prep: 08.23.18
MB Sample Id: 7661018-1-BLK — LCS Sample Id: 7661018-1-BKS — LCSD Sample Id: 7661018-1-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	246	98	90-110	0	20	mg/kg	08.23.18 19:52	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061062 — Matrix: Soil — Date Prep: 08.23.18
Parent Sample Id: 596788-001 — MS Sample Id: 596788-001 S — MSD Sample Id: 596788-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	317	249	553	95	551	94	90-110	0	20	mg/kg	08.23.18 21:25	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061062 — Matrix: Soil — Date Prep: 08.23.18
Parent Sample Id: 596792-001 — MS Sample Id: 596792-001 S — MSD Sample Id: 596792-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.12	256	263	103	266	104	90-110	1	20	mg/kg	08.23.18 20:09	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3061228 — Matrix: Solid — Date Prep: 08.24.18
MB Sample Id: 7661126-1-BLK — LCS Sample Id: 7661126-1-BKS — LCSD Sample Id: 7661126-1-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	923	92	909	91	70-135	2	20	mg/kg	08.24.18 08:51	
Diesel Range Organics (DRO)	<15.0	1000	958	96	944	94	70-135	1	20	mg/kg	08.24.18 08:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		114		109		70-135	%	08.24.18 08:51
o-Terphenyl	105		100		102		70-135	%	08.24.18 08:51

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 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3061228 — Matrix: Soil — Date Prep: 08.24.18
Parent Sample Id: 596788-002 — MS Sample Id: 596788-002 S — MSD Sample Id: 596788-002 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	1000	100	902	90	70-135	10	20	mg/kg	08.25.18 12:31	
Diesel Range Organics (DRO)	<15.0	997	1050	105	944	94	70-135	11	20	mg/kg	08.25.18 12:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		113		70-135	%	08.25.18 12:31
o-Terphenyl	112		99		70-135	%	08.25.18 12:31

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061313 — Matrix: Solid — Date Prep: 08.25.18
MB Sample Id: 7661181-1-BLK — LCS Sample Id: 7661181-1-BKS — LCSD Sample Id: 7661181-1-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	0.0935	94	0.101	100	70-130	8	35	mg/kg	08.26.18 02:22	
Toluene	<0.00200	0.100	0.0863	86	0.0948	94	70-130	9	35	mg/kg	08.26.18 02:22	
Ethylbenzene	<0.00200	0.100	0.0976	98	0.104	103	70-130	6	35	mg/kg	08.26.18 02:22	
m,p-Xylenes	<0.00401	0.200	0.217	109	0.233	116	70-130	7	35	mg/kg	08.26.18 02:22	
o-Xylene	<0.00200	0.100	0.106	106	0.114	113	70-130	7	35	mg/kg	08.26.18 02:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		107		109		70-130	%	08.26.18 02:22
4-Bromofluorobenzene	112		106		115		70-130	%	08.26.18 02:22

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061437 — Matrix: Solid — Date Prep: 08.28.18
MB Sample Id: 7661266-1-BLK — LCS Sample Id: 7661266-1-BKS — LCSD Sample Id: 7661266-1-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	0.103	102	0.0983	98	70-130	5	35	mg/kg	08.28.18 08:45	
Toluene	<0.00202	0.101	0.0972	96	0.0929	93	70-130	5	35	mg/kg	08.28.18 08:45	
Ethylbenzene	<0.00202	0.101	0.111	110	0.105	105	70-130	6	35	mg/kg	08.28.18 08:45	
m,p-Xylenes	<0.00403	0.202	0.214	106	0.203	101	70-130	5	35	mg/kg	08.28.18 08:45	
o-Xylene	<0.00202	0.101	0.0985	98	0.0938	94	70-130	5	35	mg/kg	08.28.18 08:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		93		94		70-130	%	08.28.18 08:45
4-Bromofluorobenzene	94		93		92		70-130	%	08.28.18 08:45

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
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061634 — Matrix: Solid — Date Prep: 08.29.18
MB Sample Id: 7661378-1-BLK — LCS Sample Id: 7661378-1-BKS — LCSD Sample Id: 7661378-1-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	0.107	107	0.0937	94	70-130	13	35	mg/kg	08.29.18 08:15	
Toluene	<0.00200	0.0998	0.103	103	0.0902	90	70-130	13	35	mg/kg	08.29.18 08:15	
Ethylbenzene	<0.00200	0.0998	0.117	117	0.103	103	70-130	13	35	mg/kg	08.29.18 08:15	
m,p-Xylenes	<0.00399	0.200	0.224	112	0.197	98	70-130	13	35	mg/kg	08.29.18 08:15	
o-Xylene	<0.00200	0.0998	0.103	103	0.0906	91	70-130	13	35	mg/kg	08.29.18 08:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		97		95		70-130	%	08.29.18 08:15
4-Bromofluorobenzene	95		96		92		70-130	%	08.29.18 08:15

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061313 — Matrix: Soil — Date Prep: 08.25.18
Parent Sample Id: 596319-008 — MS Sample Id: 596319-008 S — MSD Sample Id: 596319-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0734	73	0.0633	63	70-130	15	35	mg/kg	08.26.18 03:04	X
Toluene	<0.00202	0.101	0.0649	64	0.0571	57	70-130	13	35	mg/kg	08.26.18 03:04	X
Ethylbenzene	<0.00202	0.101	0.0672	67	0.0608	61	70-130	10	35	mg/kg	08.26.18 03:04	X
m,p-Xylenes	<0.00403	0.202	0.148	73	0.131	66	70-130	12	35	mg/kg	08.26.18 03:04	X
o-Xylene	<0.00202	0.101	0.0689	68	0.0592	59	70-130	15	35	mg/kg	08.26.18 03:04	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		70-130	%	08.26.18 03:04
4-Bromofluorobenzene	101		124		70-130	%	08.26.18 03:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061437 — Matrix: Soil — Date Prep: 08.28.18
Parent Sample Id: 596789-001 — MS Sample Id: 596789-001 S — MSD Sample Id: 596789-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0530	53	0.0585	59	70-130	10	35	mg/kg	08.28.18 09:26	X
Toluene	<0.00200	0.0998	0.0511	51	0.0558	56	70-130	9	35	mg/kg	08.28.18 09:26	X
Ethylbenzene	<0.00200	0.0998	0.0580	58	0.0633	63	70-130	9	35	mg/kg	08.28.18 09:26	X
m,p-Xylenes	<0.00399	0.200	0.112	56	0.122	61	70-130	9	35	mg/kg	08.28.18 09:26	X
o-Xylene	<0.00200	0.0998	0.0516	52	0.0571	57	70-130	10	35	mg/kg	08.28.18 09:26	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		70-130	%	08.28.18 09:26
4-Bromofluorobenzene	90		90		70-130	%	08.28.18 09:26

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 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3061634 Matrix: Soil Date Prep: 08.29.18

Parent Sample Id: 596847-001 MS Sample Id: 596847-001 S MSD Sample Id: 596847-001 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	0.0278	28	0.0346	34	70-130	22	35	mg/kg	08.29.18 08:56	X
Toluene	0.0129	0.100	0.0164	4	0.0608	47	70-130	115	35	mg/kg	08.29.18 08:56	XF
Ethylbenzene	0.00535	0.100	0.0118	6	0.0186	13	70-130	45	35	mg/kg	08.29.18 08:56	XF
m,p-Xylenes	0.0247	0.201	0.0299	3	0.0495	12	70-130	49	35	mg/kg	08.29.18 08:56	XF
o-Xylene	0.00639	0.100	0.0127	6	0.0133	7	70-130	5	35	mg/kg	08.29.18 08:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		90		70-130	%	08.29.18 08:56
4-Bromofluorobenzene	128		122		70-130	%	08.29.18 08:56

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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CHAIN OF CUSTODY

Page 1 of 1

Xenco Quote # | Xenco Job # 5916788

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com | Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Joseph S. Hernandez

Project Information

Project Name/Number: PLU Delaware C SWD
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number:

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 EPA 8020	TPH EPA 8015	Chloride 300.1	Field Comments
1	BH14	3'	8/21/18	0920	S	1								X	X	X	X	
2	BH15	2'		0945	S	1								X	X	X	X	
3	BH16	2'		1130	S	1								X	X	X	X	
4	SS5A	6"		1110	S	1								X	X	X	X	
5	SS6A	6"		1115	S	1								X	X	X	X	
6	SS7A	6"		1120	S	1								X	X	X	X	
7	SS8A	6"		1125	S	1								X	X	X	X	
8	SS9A	6"	↓	1130	S	1								X	X	X	X	
9		9m		8/21/18														
10																		

Turnaround Time (Business days)

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

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 # 773041374152

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		8/22 9:36				
2					8/22 15:30	
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 / Cooler Temp. / Thermo. Corr. Factor
						✓ 2.0 R8 0.0

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/23/2018 11:00:00 AM

Work Order #: 596788

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)?	2.6
#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: 08/23/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/23/2018

Jessica Kramer

Analytical Report 596789

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Delaware C SWD

10-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
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-SEP-18

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

Reference: XENCO Report No(s): **596789**
PLU Delaware C SWD
Project Address: Carlsbad, 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) 596789. 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. 596789 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 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH08	S	08-20-18 12:00	2 ft	596789-001
BH09	S	08-20-18 13:25	2 ft	596789-002
BH10	S	08-20-18 13:40	2 ft	596789-003
SS08	S	08-20-18 15:25	0.5 ft	596789-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Delaware C SWD

Project ID:
Work Order Number(s): *596789*

Report Date: *10-SEP-18*
Date Received: *08/23/2018*

Sample receipt non conformances and comments:

PER CLIENTS EMAIL, CORRECTED SAMPLE 004 NAME FROM SS1A TO SS08 JKR 09/10/18 NEW VERSION GENERATED

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061437 BTEX by EPA 8021B

Lab Sample ID 596789-001 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: 596789-001.

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.

Batch: LBA-3061634 BTEX by EPA 8021B

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

Certificate of Analysis Summary 596789

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C SWD

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am
Report Date: 10-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	596789-001		596789-002		596789-003		596789-004					
	Field Id:	BH08		BH09		BH10		SS08					
	Depth:	2- ft		2- ft		2- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-20-18 12:00		Aug-20-18 13:25		Aug-20-18 13:40		Aug-20-18 15:25					
BTEX by EPA 8021B	***Extracted:***	Aug-28-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00					
	Analyzed:	Aug-28-18 10:47		Aug-29-18 13:20		Aug-29-18 14:21		Aug-29-18 14:41					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200				
Toluene		<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200				
Ethylbenzene		<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200				
m,p-Xylenes		<0.00403	0.00403	<0.00404	0.00404	<0.00398	0.00398	<0.00399	0.00399				
o-Xylene		<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200				
Total Xylenes		<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200				
Total BTEX		<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200				
Inorganic Anions by EPA 300	***Extracted:***	Aug-28-18 13:15		Aug-28-18 13:15		Aug-28-18 13:15		Aug-28-18 13:15					
	Analyzed:	Aug-28-18 14:41		Aug-28-18 14:47		Aug-28-18 15:08		Aug-28-18 14:14					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		24.1	1.00	<1.00	1.00	3.07	1.00	<1.00	1.00				
TPH by SW8015 Mod	***Extracted:***	Aug-24-18 07:00		Aug-24-18 07:00		Aug-24-18 07:00		Aug-24-18 07:00					
	Analyzed:	Aug-24-18 12:52		Aug-24-18 13:12		Aug-24-18 14:13		Aug-24-18 14:33					
	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)		<15.0	15.0	<14.9	14.9	<15.0	15.0	61.9	15.0				
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	61.9	15.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-001	Date Collected:	08.20.18 12.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.28.18 13.15	Basis:	Wet Weight
Seq Number:	3061510				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.1**	1.00	mg/kg	08.28.18 14.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 12.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 12.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 12.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 12.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.24.18 12.52	
o-Terphenyl	84-15-1	94	%	70-135	08.24.18 12.52	

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-001	Date Collected:	08.20.18 12.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.28.18 08.00	Basis:	Wet Weight
Seq Number:	3061437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.28.18 10.47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.28.18 10.47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.28.18 10.47	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.28.18 10.47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.28.18 10.47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.28.18 10.47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.28.18 10.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	08.28.18 10.47	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.28.18 10.47	

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-002	Date Collected:	08.20.18 13.25	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.28.18 13.15	Basis:	Wet Weight
Seq Number:	3061510				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<1.00	1.00	mg/kg	08.28.18 14.47	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.24.18 13.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.24.18 13.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.24.18 13.12	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.24.18 13.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.24.18 13.12	
o-Terphenyl	84-15-1	86	%	70-135	08.24.18 13.12	

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-002	Date Collected:	08.20.18 13.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.29.18 13.20	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.29.18 13.20	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.29.18 13.20	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.29.18 13.20	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.29.18 13.20	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.29.18 13.20	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.29.18 13.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	128	%	70-130	08.29.18 13.20	
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.29.18 13.20	

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH10**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-003	Date Collected:	08.20.18 13.40	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.28.18 13.15	Basis:	Wet Weight
Seq Number:	3061510				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3.07**	1.00	mg/kg	08.28.18 15.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 14.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 14.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 14.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 14.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.24.18 14.13	
o-Terphenyl	84-15-1	89	%	70-135	08.24.18 14.13	

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH10**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-003	Date Collected:	08.20.18 13.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.18 14.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.18 14.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.18 14.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.18 14.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.18 14.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.18 14.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.18 14.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.29.18 14.21	
1,4-Difluorobenzene	540-36-3	93	%	70-130	08.29.18 14.21	

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-004	Date Collected:	08.20.18 15.25	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.28.18 13.15	Basis:	Wet Weight
Seq Number:	3061510				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<1.00	1.00	mg/kg	08.28.18 14.14	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.24.18 07.00	Basis:	Wet Weight
Seq Number:	3061228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 14.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**61.9**	15.0	mg/kg	08.24.18 14.33		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 14.33	U	1
Total TPH	PHC635	**61.9**	15.0	mg/kg	08.24.18 14.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.24.18 14.33	
o-Terphenyl	84-15-1	94	%	70-135	08.24.18 14.33	

Certificate of Analytical Results 596789

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596789-004	Date Collected:	08.20.18 15.25	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.18 14.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.18 14.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.18 14.41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.29.18 14.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.18 14.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.18 14.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.18 14.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	08.29.18 14.41	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.29.18 14.41	

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 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061510 — Matrix: Solid — Date Prep: 08.28.18
MB Sample Id: 7661279-1-BLK — LCS Sample Id: 7661279-1-BKS — LCSD Sample Id: 7661279-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<1.00	50.0	50.4	101	51.0	102	90-110	1	20	mg/kg	08.28.18 14:03	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061510 — Matrix: Soil — Date Prep: 08.28.18
Parent Sample Id: 596789-004 — MS Sample Id: 596789-004 S — MSD Sample Id: 596789-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<1.00	50.0	49.4	99	49.5	99	90-110	0	20	mg/kg	08.28.18 14:19	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061510 — Matrix: Soil — Date Prep: 08.28.18
Parent Sample Id: 596910-005 — MS Sample Id: 596910-005 S — MSD Sample Id: 596910-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.6	50.0	64.1	97	64.1	97	90-110	0	20	mg/kg	08.28.18 15:41	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3061228 — Matrix: Solid — Date Prep: 08.24.18
MB Sample Id: 7661126-1-BLK — LCS Sample Id: 7661126-1-BKS — LCSD Sample Id: 7661126-1-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	923	92	909	91	70-135	2	20	mg/kg	08.24.18 08:51	
Diesel Range Organics (DRO)	<15.0	1000	958	96	944	94	70-135	1	20	mg/kg	08.24.18 08:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		114		109		70-135	%	08.24.18 08:51
o-Terphenyl	105		100		102		70-135	%	08.24.18 08:51

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 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3061228 — Matrix: Soil — Date Prep: 08.24.18
Parent Sample Id: 596788-002 — MS Sample Id: 596788-002 S — MSD Sample Id: 596788-002 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	1000	100	902	90	70-135	10	20	mg/kg	08.25.18 12:31	
Diesel Range Organics (DRO)	<15.0	997	1050	105	944	94	70-135	11	20	mg/kg	08.25.18 12:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		113		70-135	%	08.25.18 12:31
o-Terphenyl	112		99		70-135	%	08.25.18 12:31

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061437 — Matrix: Solid — Date Prep: 08.28.18
MB Sample Id: 7661266-1-BLK — LCS Sample Id: 7661266-1-BKS — LCSD Sample Id: 7661266-1-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	0.103	102	0.0983	98	70-130	5	35	mg/kg	08.28.18 08:45	
Toluene	<0.00202	0.101	0.0972	96	0.0929	93	70-130	5	35	mg/kg	08.28.18 08:45	
Ethylbenzene	<0.00202	0.101	0.111	110	0.105	105	70-130	6	35	mg/kg	08.28.18 08:45	
m,p-Xylenes	<0.00403	0.202	0.214	106	0.203	101	70-130	5	35	mg/kg	08.28.18 08:45	
o-Xylene	<0.00202	0.101	0.0985	98	0.0938	94	70-130	5	35	mg/kg	08.28.18 08:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		93		94		70-130	%	08.28.18 08:45
4-Bromofluorobenzene	94		93		92		70-130	%	08.28.18 08:45

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061634 — Matrix: Solid — Date Prep: 08.29.18
MB Sample Id: 7661378-1-BLK — LCS Sample Id: 7661378-1-BKS — LCSD Sample Id: 7661378-1-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	0.107	107	0.0937	94	70-130	13	35	mg/kg	08.29.18 08:15	
Toluene	<0.00200	0.0998	0.103	103	0.0902	90	70-130	13	35	mg/kg	08.29.18 08:15	
Ethylbenzene	<0.00200	0.0998	0.117	117	0.103	103	70-130	13	35	mg/kg	08.29.18 08:15	
m,p-Xylenes	<0.00399	0.200	0.224	112	0.197	98	70-130	13	35	mg/kg	08.29.18 08:15	
o-Xylene	<0.00200	0.0998	0.103	103	0.0906	91	70-130	13	35	mg/kg	08.29.18 08:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		97		95		70-130	%	08.29.18 08:15
4-Bromofluorobenzene	95		96		92		70-130	%	08.29.18 08:15

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 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3061437 Matrix: Soil Date Prep: 08.28.18

Parent Sample Id: 596789-001 MS Sample Id: 596789-001 S MSD Sample Id: 596789-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0530	53	0.0585	59	70-130	10	35	mg/kg	08.28.18 09:26	X
Toluene	<0.00200	0.0998	0.0511	51	0.0558	56	70-130	9	35	mg/kg	08.28.18 09:26	X
Ethylbenzene	<0.00200	0.0998	0.0580	58	0.0633	63	70-130	9	35	mg/kg	08.28.18 09:26	X
m,p-Xylenes	<0.00399	0.200	0.112	56	0.122	61	70-130	9	35	mg/kg	08.28.18 09:26	X
o-Xylene	<0.00200	0.0998	0.0516	52	0.0571	57	70-130	10	35	mg/kg	08.28.18 09:26	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		70-130	%	08.28.18 09:26
4-Bromofluorobenzene	90		90		70-130	%	08.28.18 09:26

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3061634 Matrix: Soil Date Prep: 08.29.18

Parent Sample Id: 596847-001 MS Sample Id: 596847-001 S MSD Sample Id: 596847-001 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	0.0278	28	0.0346	34	70-130	22	35	mg/kg	08.29.18 08:56	X
Toluene	0.0129	0.100	0.0164	4	0.0608	47	70-130	115	35	mg/kg	08.29.18 08:56	XF
Ethylbenzene	0.00535	0.100	0.0118	6	0.0186	13	70-130	45	35	mg/kg	08.29.18 08:56	XF
m,p-Xylenes	0.0247	0.201	0.0299	3	0.0495	12	70-130	49	35	mg/kg	08.29.18 08:56	XF
o-Xylene	0.00639	0.100	0.0127	6	0.0133	7	70-130	5	35	mg/kg	08.29.18 08:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		90		70-130	%	08.29.18 08:56
4-Bromofluorobenzene	128		122		70-130	%	08.29.18 08:56

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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Dallas Texas (214-902-0300)
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 1

Xenco Quote #

Xenco Job # 596789

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name Joseph S. Hernandez

Project Information

Project Name/Number: PLU Delaware C SWD
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number:

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 EPA 8020	TPH EPA 8015	Chloride 300.1	Field Comments
1	BH08	2'	8/20/18	1200	S	1								X	X	X	X	
2	BH09	2'		1325	S	1								X	X	X	X	
3	BH10	2'		1340	S	1								X	X	X	X	
4	SS1A	0.5'		1525	S	1								X	X	X	X	
5																		
6			8.20.18															
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

Data Deliverable Information

Notes:

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

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

FED-EX / UPS: Tracking # 773041374152

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		8/22 9:36	1	2	8/22 15:30	2 8/23/18 11:00
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice ✓ Cooler Temp. 2.6°C Thermo. Corr. Factor 0°C

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.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/23/2018 11:00:00 AM

Work Order #: 596789

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)?	2.6
#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: 08/23/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/23/2018

Jessica Kramer

Analytical Report 596790

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Delaware C SWD

10-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
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-SEP-18

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

Reference: XENCO Report No(s): **596790**
PLU Delaware C SWD
Project Address: Carlsbad, 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) 596790. 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. 596790 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 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS09	S	08-20-18 15:30	0.5 ft	596790-001
SS10	S	08-20-18 15:35	0.5 ft	596790-002
BH11	S	08-20-18 14:30	2 ft	596790-003
BH12	S	08-20-18 15:20	2 ft	596790-004
SS11	S	08-20-18 15:40	0.5 ft	596790-005
BH 13	S	08-20-18 16:30	12 ft	596790-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Delaware C SWD

Project ID:
Work Order Number(s): *596790*

Report Date: *10-SEP-18*
Date Received: *08/23/2018*

Sample receipt non conformances and comments:

PER CLIENTS EMAIL, CORRECTED SAMPLE NAMES FOR SAMPLE 001,002,005 JKR 09/10/18 NEW VERSION GENERATED

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061634 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 596790

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C SWD

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am
Report Date: 10-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	596790-001		596790-002		596790-003		596790-004		596790-005		596790-006	
	Field Id:	SS09		SS10		BH11		BH12		SS11		BH 13	
	Depth:	0.5- ft		0.5- ft		2- ft		2- ft		0.5- ft		12- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-20-18 15:30		Aug-20-18 15:35		Aug-20-18 14:30		Aug-20-18 15:20		Aug-20-18 15:40		Aug-20-18 16:30	
BTEX by EPA 8021B	***Extracted:***	Aug-29-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00		Aug-29-18 08:00	
	Analyzed:	Aug-29-18 15:02		Aug-29-18 15:23		Aug-29-18 16:05		Aug-29-18 15:44		Aug-29-18 16:27		Aug-29-18 16:48	
	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	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
m,p-Xylenes		<0.00401	0.00401	<0.00403	0.00403	<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Aug-24-18 13:00		Aug-24-18 13:00		Aug-24-18 13:00		Aug-24-18 13:00		Aug-24-18 13:00		Aug-24-18 13:00	
	Analyzed:	Aug-24-18 14:38		Aug-24-18 14:55		Aug-24-18 15:00		Aug-24-18 15:06		Aug-24-18 15:38		Aug-24-18 15:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		6.32	4.99	<4.99	4.99	147	4.99	500	5.00	64.4	4.96	90.0	4.95
TPH by SW8015 Mod	***Extracted:***	Aug-23-18 15:00		Aug-23-18 15:00		Aug-23-18 15:00		Aug-23-18 15:00		Aug-23-18 15:00		Aug-23-18 15:00	
	Analyzed:	Aug-24-18 01:31		Aug-24-18 01:51		Aug-24-18 02:11		Aug-24-18 02:31		Aug-24-18 02:50		Aug-24-18 03:10	
	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	<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	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-001	Date Collected:	08.20.18 15.30	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.24.18 13.00	Basis:	Wet Weight
Seq Number:	3061240				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.32**	4.99	mg/kg	08.24.18 14.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.23.18 15.00	Basis:	Wet Weight
Seq Number:	3061132				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 01.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 01.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 01.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 01.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	08.24.18 01.31	
o-Terphenyl	84-15-1	103	%	70-135	08.24.18 01.31	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-001	Date Collected:	08.20.18 15.30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.18 15.02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.18 15.02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.18 15.02	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.29.18 15.02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.18 15.02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.18 15.02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.18 15.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	08.29.18 15.02	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.29.18 15.02	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-002	Date Collected:	08.20.18 15.35	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.24.18 13.00	Basis:	Wet Weight
Seq Number:	3061240				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	08.24.18 14.55	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.23.18 15.00	Basis:	Wet Weight
Seq Number:	3061132				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 01.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 01.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 01.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 01.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.24.18 01.51	
o-Terphenyl	84-15-1	90	%	70-135	08.24.18 01.51	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-002	Date Collected:	08.20.18 15.35	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.29.18 15.23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.29.18 15.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.29.18 15.23	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.29.18 15.23	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH11**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-003	Date Collected:	08.20.18 14.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.24.18 13.00	Basis:	Wet Weight
Seq Number:	3061240				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**147**	4.99	mg/kg	08.24.18 15.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.23.18 15.00	Basis:	Wet Weight
Seq Number:	3061132				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 02.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 02.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 02.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 02.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.24.18 02.11	
o-Terphenyl	84-15-1	92	%	70-135	08.24.18 02.11	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH11**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-003	Date Collected:	08.20.18 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.18 16.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.18 16.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.18 16.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.18 16.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.18 16.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.18 16.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.18 16.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.29.18 16.05	
4-Bromofluorobenzene	460-00-4	91	%	70-130	08.29.18 16.05	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH12**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-004	Date Collected:	08.20.18 15.20	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.24.18 13.00	Basis:	Wet Weight
Seq Number:	3061240				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**500**	5.00	mg/kg	08.24.18 15.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.23.18 15.00	Basis:	Wet Weight
Seq Number:	3061132				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 02.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 02.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 02.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 02.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.24.18 02.31	
o-Terphenyl	84-15-1	91	%	70-135	08.24.18 02.31	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH12**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-004	Date Collected:	08.20.18 15.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.18 15.44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.18 15.44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.18 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.18 15.44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.18 15.44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.18 15.44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.18 15.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.29.18 15.44	
4-Bromofluorobenzene	460-00-4	94	%	70-130	08.29.18 15.44	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-005	Date Collected:	08.20.18 15.40	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.24.18 13.00	Basis:	Wet Weight
Seq Number:	3061240				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**64.4**	4.96	mg/kg	08.24.18 15.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.23.18 15.00	Basis:	Wet Weight
Seq Number:	3061132				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 02.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 02.50	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 02.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 02.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.24.18 02.50	
o-Terphenyl	84-15-1	93	%	70-135	08.24.18 02.50	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-005	Date Collected:	08.20.18 15.40	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.18 16.27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.18 16.27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.18 16.27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.18 16.27	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.18 16.27	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.18 16.27	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.18 16.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.29.18 16.27	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.29.18 16.27	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH 13**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-006	Date Collected:	08.20.18 16.30	Sample Depth:	12 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.24.18 13.00	Basis:	Wet Weight
Seq Number:	3061240				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**90.0**	4.95	mg/kg	08.24.18 15.54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.23.18 15.00	Basis:	Wet Weight
Seq Number:	3061132				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.24.18 03.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.24.18 03.10	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.24.18 03.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.24.18 03.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.24.18 03.10	
o-Terphenyl	84-15-1	94	%	70-135	08.24.18 03.10	

Certificate of Analytical Results 596790

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:	**BH 13**	Matrix:	Soil	Date Received:	08.23.18 11.00
Lab Sample Id:	596790-006	Date Collected:	08.20.18 16.30	Sample Depth:	12 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.29.18 08.00	Basis:	Wet Weight
Seq Number:	3061634				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.18 16.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.18 16.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.18 16.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.18 16.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.18 16.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.18 16.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.18 16.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.29.18 16.48	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.29.18 16.48	

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 596790

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061240 — Matrix: Solid — Date Prep: 08.24.18
MB Sample Id: 7661143-1-BLK — LCS Sample Id: 7661143-1-BKS — LCSD Sample Id: 7661143-1-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	242	97	245	98	90-110	1	20	mg/kg	08.24.18 14:27	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061240 — Matrix: Soil — Date Prep: 08.24.18
Parent Sample Id: 596790-001 — MS Sample Id: 596790-001 S — MSD Sample Id: 596790-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.32	250	250	97	250	97	90-110	0	20	mg/kg	08.24.18 14:44	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3061240 — Matrix: Soil — Date Prep: 08.24.18
Parent Sample Id: 596977-003 — MS Sample Id: 596977-003 S — MSD Sample Id: 596977-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	623	251	835	84	833	84	90-110	0	20	mg/kg	08.24.18 16:27	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3061132 — Matrix: Solid — Date Prep: 08.23.18
MB Sample Id: 7661027-1-BLK — LCS Sample Id: 7661027-1-BKS — LCSD Sample Id: 7661027-1-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	967	97	945	95	70-135	2	20	mg/kg	08.23.18 18:59	
Diesel Range Organics (DRO)	<15.0	1000	1000	100	970	97	70-135	3	20	mg/kg	08.23.18 18:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		119		116		70-135	%	08.23.18 18:59
o-Terphenyl	99		99		94		70-135	%	08.23.18 18:59

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 596790

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3061132 | Matrix: Soil | Date Prep: 08.23.18
Parent Sample Id: 596598-001 | MS Sample Id: 596598-001 S | MSD Sample Id: 596598-001 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)	27.6	1000	920	89	938	91	70-135	2	20	mg/kg	08.23.18 19:57	
Diesel Range Organics (DRO)	233	1000	1120	89	1140	91	70-135	2	20	mg/kg	08.23.18 19:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		123		70-135	%	08.23.18 19:57
o-Terphenyl	106		106		70-135	%	08.23.18 19:57

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3061634 | Matrix: Solid | Date Prep: 08.29.18
MB Sample Id: 7661378-1-BLK | LCS Sample Id: 7661378-1-BKS | LCSD Sample Id: 7661378-1-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	0.107	107	0.0937	94	70-130	13	35	mg/kg	08.29.18 08:15	
Toluene	<0.00200	0.0998	0.103	103	0.0902	90	70-130	13	35	mg/kg	08.29.18 08:15	
Ethylbenzene	<0.00200	0.0998	0.117	117	0.103	103	70-130	13	35	mg/kg	08.29.18 08:15	
m,p-Xylenes	<0.00399	0.200	0.224	112	0.197	98	70-130	13	35	mg/kg	08.29.18 08:15	
o-Xylene	<0.00200	0.0998	0.103	103	0.0906	91	70-130	13	35	mg/kg	08.29.18 08:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		97		95		70-130	%	08.29.18 08:15
4-Bromofluorobenzene	95		96		92		70-130	%	08.29.18 08:15

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3061634 | Matrix: Soil | Date Prep: 08.29.18
Parent Sample Id: 596847-001 | MS Sample Id: 596847-001 S | MSD Sample Id: 596847-001 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	0.0278	28	0.0346	34	70-130	22	35	mg/kg	08.29.18 08:56	X
Toluene	0.0129	0.100	0.0164	4	0.0608	47	70-130	115	35	mg/kg	08.29.18 08:56	XF
Ethylbenzene	0.00535	0.100	0.0118	6	0.0186	13	70-130	45	35	mg/kg	08.29.18 08:56	XF
m,p-Xylenes	0.0247	0.201	0.0299	3	0.0495	12	70-130	49	35	mg/kg	08.29.18 08:56	XF
o-Xylene	0.00639	0.100	0.0127	6	0.0133	7	70-130	5	35	mg/kg	08.29.18 08:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		90		70-130	%	08.29.18 08:56
4-Bromofluorobenzene	128		122		70-130	%	08.29.18 08:56

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

XENCO LABORATORIES

Setting the Standard since 1990

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

CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #

Xenco Job # 596790

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office

Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705

Email: Abaker@ltenv.com

Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name Joseph S. Hernandez

Project Information

Project Name/Number: PLU Delaware C SWD

Project Location: Carlsbad, NM

Invoice To: XTO Energy - Kyle Littrell

PO Number:

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	Analytical Information: BTEX EPA 8030	TPH EPA 8015	Chloride 300.1	Field Comments
1	SS2A	0.5'	8/20/18	1530	S	1								X	X	X	X	
2	SS3A	0.5'		1535	S	1								X	X	X	X	
3	BH11	2'		1430	S	1								X	X	X	X	
4	BH12	2'		1520	S	1								X	X	X	X	
5	SS4A	0.5'		1540	S	1								X	X	X	X	
6	BH13	12'	↓	1630	S	1								X	X	X	X	
7			8/20/18															
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

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 # 773041374452

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		8/22 9:36	1	2	8/22 15:30	2 8/23/18 11:00
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ✓ Cooler Temp. 2.0 R8 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.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/23/2018 11:00:00 AM

Work Order #: 596790

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)?	2.6
#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: 08/23/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/23/2018

Jessica Kramer

Analytical Report 641128

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Delaware C

012919038

30-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

30-OCT-19

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

Reference: XENCO Report No(s): **641128**
PLU Delaware C
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 641128. 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. 641128 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 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH17	S	10-24-19 11:00	1 ft	641128-001
PH17A	S	10-24-19 11:10	2 ft	641128-002
PH18	S	10-24-19 11:25	1 ft	641128-003
PH18A	S	10-24-19 11:30	2 ft	641128-004
PH19	S	10-24-19 11:35	1 ft	641128-005
PH19A	S	10-24-19 11:40	2 ft	641128-006
PH20	S	10-24-19 11:50	1 ft	641128-007
PH20A	S	10-24-19 11:55	2 ft	641128-008
PH21	S	10-24-19 12:10	1 ft	641128-009
PH21A	S	10-24-19 12:15	2 ft	641128-010
PH22	S	10-24-19 12:25	1 ft	641128-011
PH22A	S	10-24-19 12:35	2 ft	641128-012
PH23	S	10-24-19 12:45	1 ft	641128-013
PH23A	S	10-24-19 12:50	2 ft	641128-014
PH24	S	10-24-19 13:10	1 ft	641128-015
PH24A	S	10-24-19 13:20	2 ft	641128-016

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Delaware C

Project ID: *012919038*
Work Order Number(s): *641128*

Report Date: *30-OCT-19*
Date Received: *10/25/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105876 BTEX by EPA 8021B

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

Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C

Project Id: 012919038
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Oct-25-19 10:32 am
Report Date: 30-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641128-001		641128-002		641128-003		641128-004		641128-005		641128-006	
	Field Id:	PH17		PH17A		PH18		PH18A		PH19		PH19A	
	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-24-19 11:00		Oct-24-19 11:10		Oct-24-19 11:25		Oct-24-19 11:30		Oct-24-19 11:35		Oct-24-19 11:40	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00	
	Analyzed:	Oct-30-19 00:43		Oct-30-19 01:03		Oct-30-19 01:23		Oct-30-19 01:44		Oct-30-19 02:04		Oct-30-19 02:24	
	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	<0.00208	0.00208	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00208	0.00208	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00208	0.00208	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00400	0.00400	<0.00417	0.00417	<0.00397	0.00397	<0.00399	0.00399	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00208	0.00208	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00208	0.00208	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00208	0.00208	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-28-19 11:25		Oct-28-19 11:25		Oct-28-19 11:25		Oct-28-19 11:25		Oct-28-19 11:25		Oct-28-19 13:20	
	Analyzed:	Oct-28-19 14:35		Oct-28-19 14:41		Oct-28-19 14:46		Oct-28-19 14:52		Oct-28-19 14:58		Oct-28-19 15:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		912	4.97	577	4.97	519	5.04	13.8	4.98	614	5.00	16.3	4.96
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00	
	Analyzed:	Oct-28-19 16:05		Oct-28-19 17:01		Oct-28-19 17:19		Oct-28-19 17:38		Oct-28-19 17:56		Oct-28-19 18:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8
Diesel Range Organics (DRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8
Total GRO-DRO		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8
Total TPH		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C

Project Id: 012919038
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Oct-25-19 10:32 am
Report Date: 30-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641128-007		641128-008		641128-009		641128-010		641128-011		641128-012	
	Field Id:	PH20		PH20A		PH21		PH21A		PH22		PH22A	
	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-24-19 11:50		Oct-24-19 11:55		Oct-24-19 12:10		Oct-24-19 12:15		Oct-24-19 12:25		Oct-24-19 12:35	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00	
	Analyzed:	Oct-30-19 03:42		Oct-30-19 04:02		Oct-30-19 04:22		Oct-30-19 04:43		Oct-30-19 05:03		Oct-30-19 05:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00398	0.00398	<0.00397	0.00397	<0.00403	0.00403	<0.00399	0.00399	<0.00401	0.00401	<0.00396	0.00396
o-Xylene		<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Total BTEX		<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-28-19 13:20		Oct-28-19 13:20		Oct-28-19 13:20		Oct-28-19 13:20		Oct-28-19 13:20		Oct-28-19 13:20	
	Analyzed:	Oct-28-19 16:01		Oct-28-19 16:17		Oct-28-19 16:22		Oct-28-19 16:37		Oct-28-19 16:42		Oct-28-19 16:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		579	4.98	1200	5.02	833	4.99	1480	24.9	1060	5.05	931	5.00
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00	
	Analyzed:	Oct-28-19 18:34		Oct-28-19 18:52		Oct-28-19 19:11		Oct-28-19 19:30		Oct-28-19 20:08		Oct-28-19 20:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9
Total TPH		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C

Project Id: 012919038
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Oct-25-19 10:32 am
Report Date: 30-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641128-013		641128-014		641128-015		641128-016					
	Field Id:	PH23		PH23A		PH24		PH24A					
	Depth:	1- ft		2- ft		1- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Oct-24-19 12:45		Oct-24-19 12:50		Oct-24-19 13:10		Oct-24-19 13:20					
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19 14:00					
	Analyzed:	Oct-30-19 05:43		Oct-30-19 06:03		Oct-30-19 06:23		Oct-30-19 06:43					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200				
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00399	0.00399	<0.00399	0.00399				
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200				
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200				
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-28-19 13:20		Oct-28-19 13:20		Oct-28-19 13:20		Oct-28-19 13:20					
	Analyzed:	Oct-28-19 16:53		Oct-28-19 16:58		Oct-28-19 17:03		Oct-28-19 17:08					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		1260	5.05	1260	5.05	384	4.96	319	5.02				
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00		Oct-28-19 13:00					
	Analyzed:	Oct-28-19 20:45		Oct-28-19 21:03		Oct-28-19 21:22		Oct-28-19 21:41					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0				
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0				
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0				
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH17**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-001	Date Collected:	10.24.19 11.00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.28.19 11.25	Basis:	Wet Weight
Seq Number:	3105644			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**912**	4.97	mg/kg	10.28.19 14.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.28.19 13.00	Basis:	Wet Weight
Seq Number:	3105660			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.28.19 16.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.28.19 16.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.28.19 16.05	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.28.19 16.05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.28.19 16.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.28.19 16.05	
o-Terphenyl	84-15-1	98	%	70-135	10.28.19 16.05	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH17**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-001	Date Collected:	10.24.19 11.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.30.19 00.43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.30.19 00.43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.30.19 00.43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.30.19 00.43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.30.19 00.43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.30.19 00.43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.30.19 00.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	10.30.19 00.43	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 00.43	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH17A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-002 Date Collected: 10.24.19 11.10 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.28.19 11.25 Basis: Wet Weight

Seq Number: 3105644 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**577**	4.97	mg/kg	10.28.19 14.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.28.19 17.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.28.19 17.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.28.19 17.01	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.28.19 17.01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.28.19 17.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.28.19 17.01	
o-Terphenyl	84-15-1	98	%	70-135	10.28.19 17.01	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH17A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-002	Date Collected:	10.24.19 11.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 01.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 01.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 01.03	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.30.19 01.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 01.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 01.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 01.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.30.19 01.03	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.30.19 01.03	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH18** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-003 Date Collected: 10.24.19 11.25 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.28.19 11.25 Basis: Wet Weight

Seq Number: 3105644 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**519**	5.04	mg/kg	10.28.19 14.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 17.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 17.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 17.19	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 17.19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 17.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.28.19 17.19	
o-Terphenyl	84-15-1	97	%	70-135	10.28.19 17.19	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH18**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-003	Date Collected:	10.24.19 11.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00208	0.00208	mg/kg	10.30.19 01.23	U	1
Toluene	108-88-3	<0.00208	0.00208	mg/kg	10.30.19 01.23	U	1
Ethylbenzene	100-41-4	<0.00208	0.00208	mg/kg	10.30.19 01.23	U	1
m,p-Xylenes	179601-23-1	<0.00417	0.00417	mg/kg	10.30.19 01.23	U	1
o-Xylene	95-47-6	<0.00208	0.00208	mg/kg	10.30.19 01.23	U	1
Total Xylenes	1330-20-7	<0.00208	0.00208	mg/kg	10.30.19 01.23	U	1
Total BTEX		<0.00208	0.00208	mg/kg	10.30.19 01.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	10.30.19 01.23	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 01.23	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH18A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-004 Date Collected: 10.24.19 11.30 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.28.19 11.25 Basis: Wet Weight

Seq Number: 3105644 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.8**	4.98	mg/kg	10.28.19 14.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.28.19 17.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.28.19 17.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.28.19 17.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.28.19 17.38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.28.19 17.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	10.28.19 17.38	
o-Terphenyl	84-15-1	100	%	70-135	10.28.19 17.38	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH18A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-004	Date Collected:	10.24.19 11.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.30.19 01.44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.30.19 01.44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.30.19 01.44	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.30.19 01.44	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.30.19 01.44	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.30.19 01.44	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.30.19 01.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.30.19 01.44	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.30.19 01.44	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH19** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-005 Date Collected: 10.24.19 11.35 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.28.19 11.25 Basis: Wet Weight

Seq Number: 3105644 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**614**	5.00	mg/kg	10.28.19 14.58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 17.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 17.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 17.56	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 17.56	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 17.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.28.19 17.56	
o-Terphenyl	84-15-1	96	%	70-135	10.28.19 17.56	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH19**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-005	Date Collected:	10.24.19 11.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 02.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 02.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 02.04	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.30.19 02.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 02.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 02.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 02.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	10.30.19 02.04	
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.30.19 02.04	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH19A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-006 Date Collected: 10.24.19 11.40 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.28.19 13.20 Basis: Wet Weight

Seq Number: 3105654 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.3**	4.96	mg/kg	10.28.19 15.56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.28.19 18.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.28.19 18.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.28.19 18.15	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.28.19 18.15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.28.19 18.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.28.19 18.15	
o-Terphenyl	84-15-1	100	%	70-135	10.28.19 18.15	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH19A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-006	Date Collected:	10.24.19 11.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 02.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 02.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 02.24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.30.19 02.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 02.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 02.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 02.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.30.19 02.24	
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.30.19 02.24	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH20** Matrix: Soil Date Received:10.25.19 10.32
Lab Sample Id: 641128-007 Date Collected: 10.24.19 11.50 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: SPC % Moisture:
Analyst: SPC Date Prep: 10.28.19 13.20 Basis: Wet Weight
Seq Number: 3105654 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**579**	4.98	mg/kg	10.28.19 16.01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight
Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 18.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 18.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 18.34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 18.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 18.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.28.19 18.34	
o-Terphenyl	84-15-1	95	%	70-135	10.28.19 18.34	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH20**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-007	Date Collected:	10.24.19 11.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.30.19 03.42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.30.19 03.42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.30.19 03.42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.30.19 03.42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.30.19 03.42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.30.19 03.42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.30.19 03.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	10.30.19 03.42	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 03.42	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH20A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-008 Date Collected: 10.24.19 11.55 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.28.19 13.20 Basis: Wet Weight

Seq Number: 3105654 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	5.02	mg/kg	10.28.19 16.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 18.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 18.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 18.52	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 18.52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 18.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.28.19 18.52	
o-Terphenyl	84-15-1	98	%	70-135	10.28.19 18.52	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH20A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-008	Date Collected:	10.24.19 11.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.30.19 04.02	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.30.19 04.02	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.30.19 04.02	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.30.19 04.02	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.30.19 04.02	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.30.19 04.02	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.30.19 04.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.30.19 04.02	
4-Bromofluorobenzene	460-00-4	98	%	70-130	10.30.19 04.02	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH21**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-009	Date Collected:	10.24.19 12.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.28.19 13.20	Basis:	Wet Weight
Seq Number:	3105654			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**833**	4.99	mg/kg	10.28.19 16.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.28.19 13.00	Basis:	Wet Weight
Seq Number:	3105660			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.28.19 19.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.28.19 19.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.28.19 19.11	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.28.19 19.11	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.28.19 19.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.28.19 19.11	
o-Terphenyl	84-15-1	97	%	70-135	10.28.19 19.11	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH21**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-009	Date Collected:	10.24.19 12.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.30.19 04.22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.30.19 04.22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.30.19 04.22	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.30.19 04.22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.30.19 04.22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.30.19 04.22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.30.19 04.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 04.22	
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.30.19 04.22	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH21A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-010 Date Collected: 10.24.19 12.15 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.28.19 13.20 Basis: Wet Weight

Seq Number: 3105654 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1480**	24.9	mg/kg	10.28.19 16.37		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.28.19 19.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.28.19 19.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.28.19 19.30	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.28.19 19.30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.28.19 19.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.28.19 19.30	
o-Terphenyl	84-15-1	96	%	70-135	10.28.19 19.30	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH21A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-010	Date Collected:	10.24.19 12.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 04.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 04.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 04.43	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.30.19 04.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 04.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 04.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 04.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.30.19 04.43	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.30.19 04.43	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH22**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-011	Date Collected:	10.24.19 12.25	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.28.19 13.20	Basis:	Wet Weight
Seq Number:	3105654			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1060**	5.05	mg/kg	10.28.19 16.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.28.19 13.00	Basis:	Wet Weight
Seq Number:	3105660			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 20.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 20.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 20.08	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 20.08	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 20.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.28.19 20.08	
o-Terphenyl	84-15-1	96	%	70-135	10.28.19 20.08	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH22**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-011	Date Collected:	10.24.19 12.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 05.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 05.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 05.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.30.19 05.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 05.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 05.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 05.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 05.03	
4-Bromofluorobenzene	460-00-4	109	%	70-130	10.30.19 05.03	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH22A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-012 Date Collected: 10.24.19 12.35 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.28.19 13.20 Basis: Wet Weight

Seq Number: 3105654 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**931**	5.00	mg/kg	10.28.19 16.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.28.19 20.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.28.19 20.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.28.19 20.26	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.28.19 20.26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.28.19 20.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.28.19 20.26	
o-Terphenyl	84-15-1	98	%	70-135	10.28.19 20.26	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH22A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-012	Date Collected:	10.24.19 12.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.30.19 05.23	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.30.19 05.23	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.30.19 05.23	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.30.19 05.23	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.30.19 05.23	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.30.19 05.23	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.30.19 05.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.30.19 05.23	
4-Bromofluorobenzene	460-00-4	104	%	70-130	10.30.19 05.23	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH23**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-013	Date Collected:	10.24.19 12.45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.28.19 13.20	Basis:	Wet Weight
Seq Number:	3105654			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1260**	5.05	mg/kg	10.28.19 16.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.28.19 13.00	Basis:	Wet Weight
Seq Number:	3105660			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 20.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 20.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 20.45	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 20.45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 20.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.28.19 20.45	
o-Terphenyl	84-15-1	95	%	70-135	10.28.19 20.45	

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LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH23**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-013	Date Collected:	10.24.19 12.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.30.19 05.43	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.30.19 05.43	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.30.19 05.43	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.30.19 05.43	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.30.19 05.43	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.30.19 05.43	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.30.19 05.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.30.19 05.43	
4-Bromofluorobenzene	460-00-4	100	%	70-130	10.30.19 05.43	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH23A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-014 Date Collected: 10.24.19 12.50 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.28.19 13.20 Basis: Wet Weight

Seq Number: 3105654 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1260**	5.05	mg/kg	10.28.19 16.58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 21.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 21.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 21.03	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 21.03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 21.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.28.19 21.03	
o-Terphenyl	84-15-1	98	%	70-135	10.28.19 21.03	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH23A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-014	Date Collected:	10.24.19 12.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 06.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 06.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 06.03	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.30.19 06.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 06.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 06.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 06.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	10.30.19 06.03	
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.30.19 06.03	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH24**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-015	Date Collected:	10.24.19 13.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.28.19 13.20	Basis:	Wet Weight
Seq Number:	3105654			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**384**	4.96	mg/kg	10.28.19 17.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.28.19 13.00	Basis:	Wet Weight
Seq Number:	3105660			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.28.19 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.28.19 21.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.28.19 21.22	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.28.19 21.22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.28.19 21.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.28.19 21.22	
o-Terphenyl	84-15-1	99	%	70-135	10.28.19 21.22	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH24**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-015	Date Collected:	10.24.19 13.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 06.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 06.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 06.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.30.19 06.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 06.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 06.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 06.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	10.30.19 06.23	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 06.23	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH24A** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-016 Date Collected: 10.24.19 13.20 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.28.19 13.20 Basis: Wet Weight

Seq Number: 3105654 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**319**	5.02	mg/kg	10.28.19 17.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.28.19 13.00 Basis: Wet Weight

Seq Number: 3105660 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.19 21.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.19 21.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.19 21.41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.19 21.41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.19 21.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.28.19 21.41	
o-Terphenyl	84-15-1	100	%	70-135	10.28.19 21.41	

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id:	**PH24A**	Matrix:	Soil	Date Received:	10.25.19 10.32
Lab Sample Id:	641128-016	Date Collected:	10.24.19 13.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 14.00	Basis:	Wet Weight
Seq Number:	3105876			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 06.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 06.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 06.43	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.30.19 06.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 06.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 06.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 06.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.30.19 06.43	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 06.43	

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 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105644 — Matrix: Solid — Date Prep: 10.28.19
MB Sample Id: 7688995-1-BLK — LCS Sample Id: 7688995-1-BKS — LCSD Sample Id: 7688995-1-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	243	97	245	98	90-110	1	20	mg/kg	10.28.19 12:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105654 — Matrix: Solid — Date Prep: 10.28.19
MB Sample Id: 7689018-1-BLK — LCS Sample Id: 7689018-1-BKS — LCSD Sample Id: 7689018-1-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	263	105	262	105	90-110	0	20	mg/kg	10.28.19 14:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105644 — Matrix: Soil — Date Prep: 10.28.19
Parent Sample Id: 640979-091 — MS Sample Id: 640979-091 S — MSD Sample Id: 640979-091 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.0	249	255	96	261	99	90-110	2	20	mg/kg	10.28.19 12:27	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105644 — Matrix: Soil — Date Prep: 10.28.19
Parent Sample Id: 641117-008 — MS Sample Id: 641117-008 S — MSD Sample Id: 641117-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1140	199	1320	90	1330	95	90-110	1	20	mg/kg	10.28.19 13:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105654 — Matrix: Soil — Date Prep: 10.28.19
Parent Sample Id: 641128-007 — MS Sample Id: 641128-007 S — MSD Sample Id: 641128-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	579	249	803	90	806	91	90-110	0	20	mg/kg	10.28.19 16:07	

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 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105654 Matrix: Soil Date Prep: 10.28.19
Parent Sample Id: 641200-021 MS Sample Id: 641200-021 S MSD Sample Id: 641200-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	218	250	479	104	471	101	90-110	2	20	mg/kg	10.28.19 14:55	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105660 Matrix: Solid Date Prep: 10.28.19
MB Sample Id: 7689072-1-BLK LCS Sample Id: 7689072-1-BKS LCSD Sample Id: 7689072-1-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	1130	113	1110	111	70-135	2	20	mg/kg	10.28.19 15:27	
Diesel Range Organics (DRO)	<15.0	1000	1080	108	1060	106	70-135	2	20	mg/kg	10.28.19 15:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		129		124		70-135	%	10.28.19 15:27
o-Terphenyl	105		115		111		70-135	%	10.28.19 15:27

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105660 Matrix: Solid Date Prep: 10.28.19
MB Sample Id: 7689072-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.28.19 15:08	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105660 Matrix: Soil Date Prep: 10.28.19
Parent Sample Id: 641128-001 MS Sample Id: 641128-001 S MSD Sample Id: 641128-001 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	1030	103	1050	105	70-135	2	20	mg/kg	10.28.19 16:23	
Diesel Range Organics (DRO)	<15.0	999	986	99	1000	100	70-135	1	20	mg/kg	10.28.19 16:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		123		70-135	%	10.28.19 16:23
o-Terphenyl	105		104		70-135	%	10.28.19 16:23

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 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3105876 Matrix: Solid Date Prep: 10.29.19
MB Sample Id: 7689147-1-BLK LCS Sample Id: 7689147-1-BKS LCSD Sample Id: 7689147-1-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	0.103	103	0.112	112	70-130	8	35	mg/kg	10.29.19 21:23	
Toluene	<0.00200	0.100	0.0973	97	0.108	108	70-130	10	35	mg/kg	10.29.19 21:23	
Ethylbenzene	<0.00200	0.100	0.0992	99	0.112	112	70-130	12	35	mg/kg	10.29.19 21:23	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.230	115	70-130	12	35	mg/kg	10.29.19 21:23	
o-Xylene	<0.00200	0.100	0.101	101	0.117	117	70-130	15	35	mg/kg	10.29.19 21:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		97		99		70-130	%	10.29.19 21:23
4-Bromofluorobenzene	98		104		115		70-130	%	10.29.19 21:23

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3105876 Matrix: Soil Date Prep: 10.29.19
Parent Sample Id: 640977-001 MS Sample Id: 640977-001 S MSD Sample Id: 640977-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0878	88	0.0893	90	70-130	2	35	mg/kg	10.29.19 22:03	
Toluene	<0.00200	0.100	0.0847	85	0.0852	86	70-130	1	35	mg/kg	10.29.19 22:03	
Ethylbenzene	<0.00200	0.100	0.0863	86	0.0860	87	70-130	0	35	mg/kg	10.29.19 22:03	
m,p-Xylenes	<0.00401	0.200	0.176	88	0.175	88	70-130	1	35	mg/kg	10.29.19 22:03	
o-Xylene	<0.00200	0.100	0.0881	88	0.0874	88	70-130	1	35	mg/kg	10.29.19 22:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	10.29.19 22:03
4-Bromofluorobenzene	111		108		70-130	%	10.29.19 22:03

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

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 641128

www.xenco.com Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	PLU Delaware C	Turn Around	
Project Number:	012918078	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.2	Thermometer ID	
Received Intact:	Yes No	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	14

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH17	S	10.24.19	1100	1	1	X	X	X
PH17A	S	10.24.19	1110	2	1	X	X	X
PH18	S	10.24.19	1125	1	1	X	X	X
PH18A	S	10.24.19	1130	2	1	X	X	X
PH19	S	10.24.19	1135	1	1	X	X	X
PH19A	S	10.24.19	1140	2	1	X	X	X
PH20	S	10.24.19	1150	1	1	X	X	X
PH20A	S	10.24.19	1155	2	1	X	X	X
PH21	S	10.24.19	1210	1	1	X	X	X
PH21A	S	10.24.19	1215	2	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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 $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Spencer Lo		10/25/19 09:55AM	2			10/25/19 1032
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: 641128

Page 2 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	PLU Delaware C	Turn Around	
Project Number:	01291838	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH22	S	10.24.19	1225	1	1	X	X	X
PH22A	S	10.24.19	1235	2	1	X	X	X
PH23	S	10.24.19	1245	1	1	X	X	X
PH23A	S	10.24.19	1250	2	1	X	X	X
PH24	S	10.24.19	1310	1	1	X	X	X
P24A	S	10.24.19	1320	2	1	X	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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 $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Spencer Lo		10/25/19 09:55 AM	2		10/25/19 10:32
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **50900**

Date/Time: 10/25/19 15:50
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776821232900

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641128-001	S	PH17	10/24/19 11:00	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-001	S	PH17	10/24/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-001	S	PH17	10/24/19 11:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-002	S	PH17A	10/24/19 11:10	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-002	S	PH17A	10/24/19 11:10	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-002	S	PH17A	10/24/19 11:10	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-003	S	PH18	10/24/19 11:25	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-003	S	PH18	10/24/19 11:25	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-003	S	PH18	10/24/19 11:25	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-004	S	PH18A	10/24/19 11:30	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-004	S	PH18A	10/24/19 11:30	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-004	S	PH18A	10/24/19 11:30	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-005	S	PH19	10/24/19 11:35	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-005	S	PH19	10/24/19 11:35	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-005	S	PH19	10/24/19 11:35	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-006	S	PH19A	10/24/19 11:40	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-006	S	PH19A	10/24/19 11:40	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-006	S	PH19A	10/24/19 11:40	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-007	S	PH20	10/24/19 11:50	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-007	S	PH20	10/24/19 11:50	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-007	S	PH20	10/24/19 11:50	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-008	S	PH20A	10/24/19 11:55	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-008	S	PH20A	10/24/19 11:55	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-008	S	PH20A	10/24/19 11:55	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-009	S	PH21	10/24/19 12:10	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **50900**

Date/Time: 10/25/19 15:50
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776821232900

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641128-009	S	PH21	10/24/19 12:10	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-009	S	PH21	10/24/19 12:10	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-010	S	PH21A	10/24/19 12:15	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-010	S	PH21A	10/24/19 12:15	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-010	S	PH21A	10/24/19 12:15	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-011	S	PH22	10/24/19 12:25	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-011	S	PH22	10/24/19 12:25	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-011	S	PH22	10/24/19 12:25	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-012	S	PH22A	10/24/19 12:35	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-012	S	PH22A	10/24/19 12:35	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-012	S	PH22A	10/24/19 12:35	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-013	S	PH23	10/24/19 12:45	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-013	S	PH23	10/24/19 12:45	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-013	S	PH23	10/24/19 12:45	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-014	S	PH23A	10/24/19 12:50	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-014	S	PH23A	10/24/19 12:50	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-014	S	PH23A	10/24/19 12:50	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-015	S	PH24	10/24/19 13:10	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-015	S	PH24	10/24/19 13:10	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-015	S	PH24	10/24/19 13:10	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-016	S	PH24A	10/24/19 13:20	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-016	S	PH24A	10/24/19 13:20	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-016	S	PH24A	10/24/19 13:20	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By:

Received By:

Inter-Office Shipment

IOS Number **50900**

Date/Time: 10/25/19 15:50

Lab# From: **Carlsbad**

Lab# To: **Midland**

Created by: Elizabeth Mcclellan

Delivery Priority:

Air Bill No.: 776821232900

Please send report to: Jessica Kramer

Address: 1089 N Canal Street

E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Date Relinquished:

Elizabeth McClellan

10/25/2019

Date Received:

Brianna Teel

10/28/2019 07:26

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 50900

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

Sent By: Elizabeth McClellan **Date Sent:** 10/25/2019 03:50 PM

Received By: Brianna Teel **Date Received:** 10/28/2019 07:26 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 10/28/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/25/2019 10:32:00 AM

Work Order #: 641128

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/25/2019

Checklist reviewed by: Jessica Kramer Date: 10/28/2019

Jessica Kramer