

LT Environmental, Inc.

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

APPROVED

March 20, 2020

Mr. Bradford Billings New Mexico Oil Conservation Division 1220 South St. Francis Drive, #3 Santa Fe, New Mexico 87505 The OCD approves the Closure Report C-141 for incident #NJMW1231129593 with the following conditions.

- Depth to groundwater is not adequately identified. When nearby wells are used to determine depth
 to groundwater, the wells should be no further than ½ mile away from the site, and data should be no
 more than 25 years old, and well construction information should be provided. If evidence of depth to
 ground water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet
 Table 1 Closure Criteria for ground water at a depth of 50 feet or less.
- This release does appear to have been vertically and horizontally defined to 4' and does appear to
 meet the strictest remediation requirements in Table 1.19.15.29.12 NMAC.

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).



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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



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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



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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.



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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.



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Sincerely,

LT ENVIRONMENTAL, INC.

Keni M. age

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

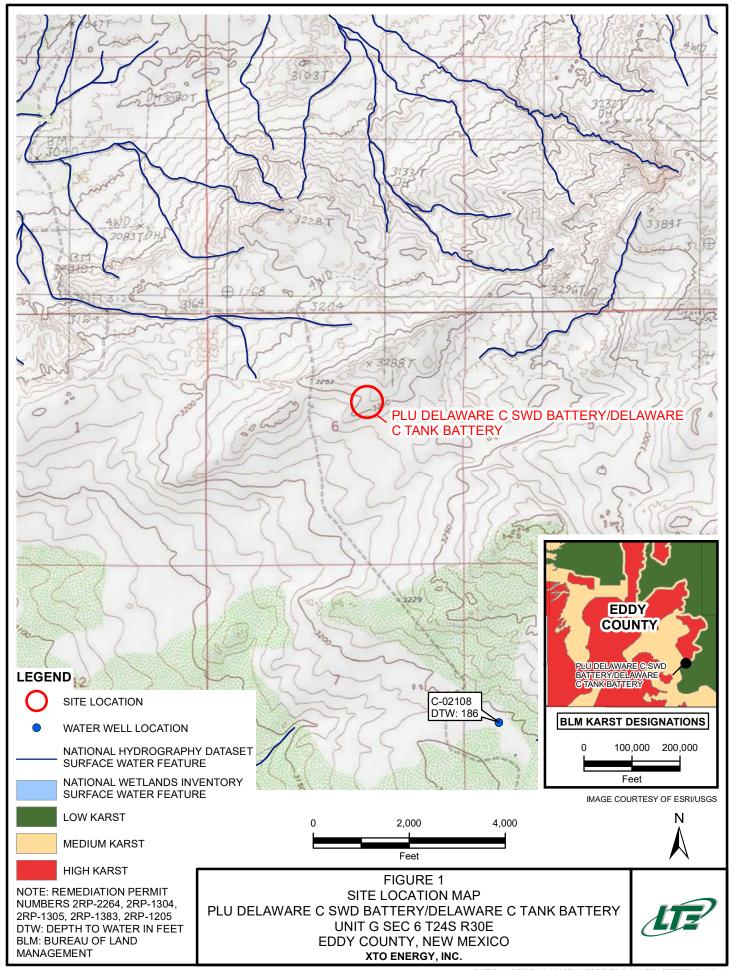
Attachment 1 Initial/Final NMOCD Form C-141 (2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and

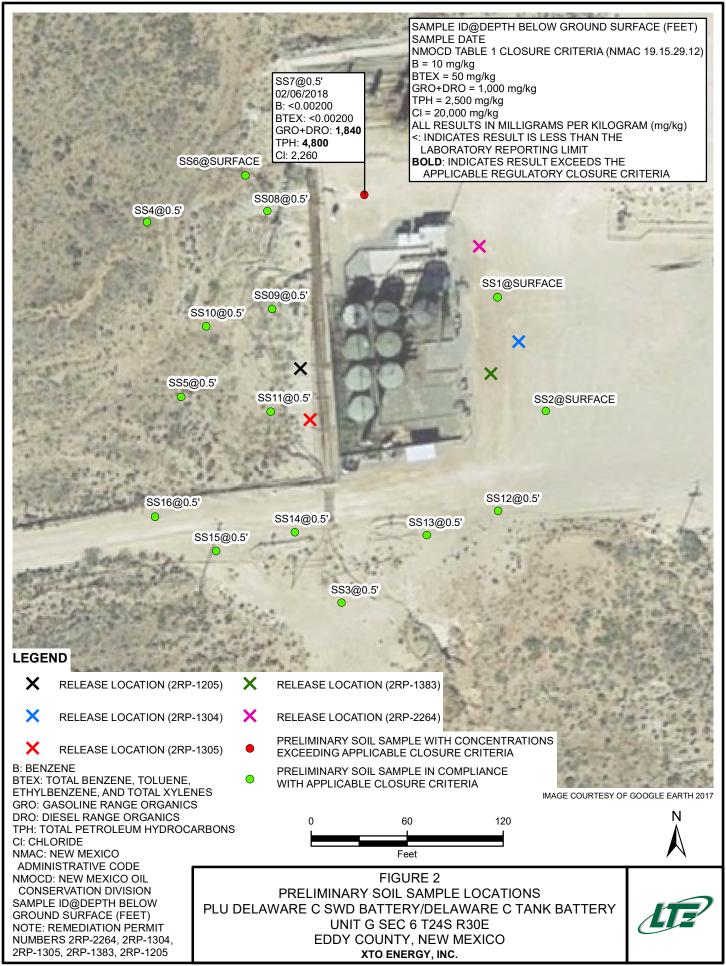
2RP-2264)

Attachment 2 Lithologic / Soil Sample Logs

Attachment 3 Photographic Log

Attachment 4 Laboratory Analytical Reports





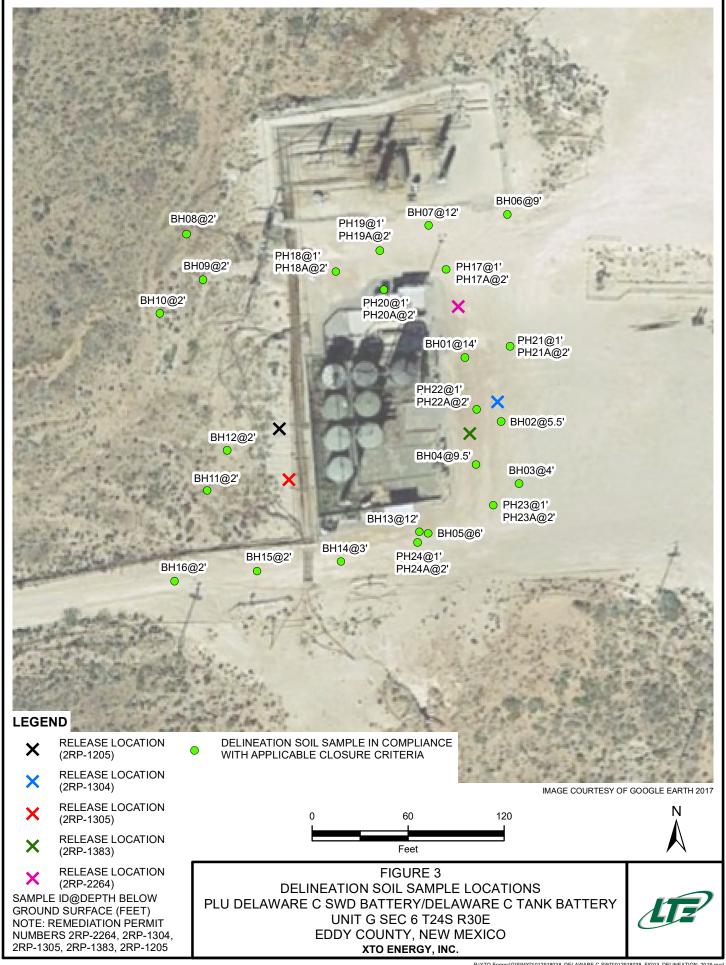


TABLE 1
SOIL ANALYTICAL RESULTS

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 Closur	e 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



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 Closur	e 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



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

RECEIVED

JUN 26 2012

NMOCD ARTESIA

			Rele	ease Notific	atio	n and Co	rrective A	ction	ì			
NJMW 1219345739						OPERATOR ☑ Initial Report ☐ Fina					Final Repor	
						Contact Ton						
				ad, N.M. 88220			No. 432-556-873	30				
Facility Nar	me: Poker	Lake Unit D	elaware (C SWD Battery		Facility Typ	e E&P					
Surface Ow			,	Mineral O	wner	Federal			Lease 1	Vo 8910003)03 F	API#
PokerL	akeUt	4 153			TIO	N OF REI	LEASE			5-314	12	
Unit Letter G	Section 6	Township 24S	Range 30E	Feet from the	North	h/South Line Feet from the East/West Line County Eddy						
			L	atitude_N 32.2				67				
Type of Rele	ase: Produc	ed water		NAI	UKE		Release: 25 bbls	of	Volume R	Recovered: N	lone	
Source of Re	lease: Produ	iced water sto	rage tank			1	vater our of Occurrence our unknown	e	Date and 5/30/12 8	Hour of Disc	covery	,
Was Immedia	ate Notice C		Yes [No □ Not Re	quired	If YES, To		nd Jim				
By Whom? T	ony Savoie						our 6/1/12, NMO was delayed due t					
Was a Watero	course Reac		Yes 🛛	No			lume Impacting th					
Describe Cau	se of Proble			n Taken.* A pipe f	itting o	on the discharg	e line from the SV	WD pur	np broke, tl	he pipe conn	ection	was
several flow l	ine spills in	the same area	that the r	en Approximatel elease covered. Al D and BLM reme	ll of the	e fluid soaked						
regulations al public health should their o	l operators a or the environs ha ment. In ac	are required to conment. The live failed to a ldition, NMO	report an acceptance dequately CD accept	is true and comple d/or file certain re e of a C-141 repor investigate and re- cance of a C-141 re-	lease n t by the mediat	otifications an e NMOCD ma e contamination	d perform correct rked as "Final Re on that pose a thre	ive acti port" de at to gre	ons for rele oes not relic ound water,	eases which re eve the opera surface wat	may en ator of ter, hur	ndanger Tliability man health
		-					OIL CONS	ERV	ATION	DIVISIO	N	
Signature: Approved by District Supervisor Printed Name: Tony Savoie					r: Signed	. By <u>M</u>	1/4 Ben	ABS/L	<u> </u>			
Title: Waste N			cialist			Approval Date		A E	Expiration D	Date:		
E-mail Addres						Conditions of		4		Attached		
Date: 6/24/12			I	Phone:432-556-87	30					1		
Attach Addit	ional Sheet	s If Necessa		······································						205) _ 4	205
					Re	emediation	per OCD Rules	. &		よ ス ア	1	1205

Guidelines. SUBMIT REMEDIATION

PROPOSAL NOT LATER THAN:

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: 5	OGRID: 5380				
Contact Name: Kyle	e Littrell		Contact Te	Selephone: (432)-221-7331				
Contact email: Kyle	e_Littrell@xtoenergy.c	om	Incident #	Incident #: 2RP-1205				
Contact mailing add NM 88220	ress: 522 W. Mermod,	Suite 704 Carlsbad	,					
		Location of	of Release So	ource				
Latitude <u>32.248850</u>	Latitude 32.248850 Longitude -103.919067 (NAD 83 in decimal degrees to 5 decimal places)							
Site Name Poker La	ke Unit Delaware C SV	WD Battery	Site Type	Exploration and Production				
Date Release Discov	ered 5/30/2012		API# (if app	plicable) 30-015-31412				
Unit Letter Secti	on Township	Range	Cour	ntv				
G 6	24S	30E	Edd	·				
M	aterial(s) Released (Select al	Nature and		Release c justification for the volumes provided below)				
Crude Oil	Volume Release		irediations of specific	Volume Recovered (bbls)				
Produced Water	Volume Release	d (bbls) 25 bbls		Volume Recovered (bbls) 0 bbls				
	Is the concentrate produced water	tion of dissolved chl >10,000 mg/l?	oride in the	☐ Yes ☐ No				
Condensate	Volume Release			Volume Recovered (bbls)				
☐ Natural Gas	Volume Release	d (Mcf)		Volume Recovered (Mcf)				
Other (describe)	Volume/Weight	Released (provide u	units)	Volume/Weight Recovered (provide units)				
Cause of Release								
A pipe fitting on the disc land was affected west of		pump broke. The fitting	g was replaced the sa	same day. An area covering approximately 1,960 sq. ft of pasture				

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

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?								
release as defined by 19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.								
⊠ Yes □ No									
If YES, was immediate new Yes, by Tony Savoie to No. a.m.	notice given to the OCD? NMOCD Emergency Response #104 and Jim Amos (BLM) on 6/1/2012 at 11:41								
	Initial Response								
The responsible	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 rela	ease has been stopped.								
The impacted area ha	as been secured to protect human health and the environment.								
Released materials ha	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.								
All free liquids and re	ecoverable materials have been removed and managed appropriately.								
If all the actions describe	If all the actions described above have <u>not</u> been undertaken, explain why:								
has begun, please attach	MAC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred nt area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.								
	ormation 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: <u>Kyl</u>	e Littrell Title: SH&E Supervisor								
Signature:	Date: <u>3/20/2020</u>								
email: _Kyle_Littrell@xto	<u>d32-221-7331</u> Telephone: <u>432-221-7331</u>								
OCD Only									
	D. C.								
keceived by:	Date:								

5 State of New Mexico Incident ID

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

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Site Assessment/Characterization

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

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

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.

Laboratory data including chain of custody

Received by OCD: 4/16/2020 10:04:02 AM State of New Mexico
Page 4 Oil Conservation Division

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

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Incident ID	
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 OD	C District office must be notified 2 days prior to final sampling)				
□ Description of remediation activities					
and regulations all operators are required to report and/or file certar may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.				
Signature:					
email:Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331				
OCD Only					
Received by:	Date:				
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.				
Closure Approved by:	Date:				
Printed Name:	Title:				

Form C-141

District 1
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**

Revised August 8, 2011

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

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

	Release Notification and Corrective Action											
MMIn	22842	28008				OPERA'	ГOR			al Report		Final Report
			Contact: Tony Savoie									
			Telephone l	No. 575-887-73	29							
Facility Nan the PLU-153		are "C" Tanl	Battery	, same well pad	as	Facility Typ	e: Exploration	and Pro	duction			
Surface Own	ner: Federa	al		Mineral O	wner:	Federal			API No	. 30-015-3	1412	
				LOCA	TIO	N OF RE	LEASE					
Unit Letter G	Section 6	Township 24S	Range 30 E	Feet from the	North	/South Line	Feet from the	East/West Line		County Eddy		
				Latitude N 32.2		5 Longitud		7				
Type of Relea	ase: Produce	ed water					Release: 200 bbl	s	Volume R	Recovered: 5	bbls	
Source of Rel	ease: Truck	load line			· · · · · ·		lour of Occurrence	e:	Date and 9/2/12 8:0	Hour of Dis	covery	:
Was Immedia	te Notice G		Yes [No Not Rec	quired	If YES, To Artesia NN	Whom? IOCD emergency	y #104				
By Whom? T	ony Savoie					Date and H	lour: 9/2/12 at 12	:19 p.m.				
Was a Watero			Yes 🗵	No		If YES, Volume Impacting the Watercourse. RECEIVED			IAED			
If a Watercou	rse was Imr	pacted. Descri	be Fully.			<u> </u>				+ SE	P 0 (3 2012
										NMO	CD A	RTESIA
Describe Cau The truck load				n Taken.* the produced wate	r to sp	ill out onto th	e tank battery pad	l. The va	ilve was clo	sed upon di	scover	y.
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.												
					OIL CONSERVATION DIVISION							
Signature: Ory Saulue Appr					Approved by Environmental Specialist Signed By Mily Brance							
Title: Waste M	1anagement	and Remedia	tion Spec	ialist		()(Approval Date		E	Expiration I	Date:		
E-mail Address: tasavoie@basspet.com			Conditions of	Approval:			Attached					
Date:9/5/12				Phone: 432-556-87	30							
Attach Additi	ional Sheet	ts If Necessa	ry	C			per OCD Rules			2R/	ــ د	1304

PROPOSAL NOT LATER THAN:
November 10, 2012

. Released to Imaging: 10/18/2022 11:59:20 AM

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: :	OGRID: 5380		
Contact Name: Kyle Littrell				Contact To	Contact Telephone: (432)-221-7331		
Contact email: Kyle_Littrell@xtoenergy.com			om	Incident #	#: 2RP-1304		
Contact mail NM 88220	ing address:	522 W. Mermod,	Suite 704 Carlsbac	d,			
			Location	of Release S	Source		
Latitude 32.248735 Longitude -103.918797				-103.918797			
			(NAD 83 in deci	imal degrees to 5 decir			
Site Name D	elaware "C"	Tank Battery		Site Type	Exploration and Production		
Date Release	Discovered	9/2/2012		API# (if app	pplicable) 30-015-31412		
TI '. I	G .:	m 1:	D.				
Unit Letter G	Section 6	Township 24S	Range 30E	Cour Edd			
U	0	243	JOL	Luc	dy		
Surface Owner	r: State	∑ Federal	ibal	Jame:)		
			Noture and	Volume of 1	Dalaasa		
			Nature and	volume of	Release		
Crude Oil		Volume Released		calculations or specific	c justification for the volumes provided below) Volume Recovered (bbls)		
Produced					Volume Recovered (bbls) 5 bbls		
Produced	water		d (bbls) 200 bbls	1 11 1 1	` ′		
		Is the concentrat produced water	ion of dissolved ch	nloride in the	☐ Yes ☐ No		
Condensa	te	Volume Release			Volume Recovered (bbls)		
Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units)			Released (provide	units)	S) Volume/Weight Recovered (provide units)		
Cause of Rele	ease						
					k battery pad. The valve was closed upon discovery. quare 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.							

Received by OCD: 4/16/2020 10:04:02 AM
State of New Mexico
Page 2
Oil Conservation Division

73	2.2	6020
Page	/ K N	f 240
1 466	40 U	1 470

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

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate no Yes, by Tony Savoie to E	otice given to the OCD? mergency Response #104 on 9/2/2012 at 12:19 p.m.
	Initial Response
The responsible j	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.
☐ The impacted area ha	s been secured to protect human health and the environment.
Released materials ha	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain why:
Per 19 15 29 8 B (4) NM	AC 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 at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are public health or the environr failed to adequately investig	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: Kylo	<u>E Littrell</u> Title: <u>SH&E Supervisor</u>
Signature:	Date: <u>3/20/2020</u>
email: <u>Kyle_Littrell@xto</u>	<u>renergy.com</u> Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:

92 AM State of New Mexico Incident ID

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

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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				

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.

Photographs including date and GIS information

☐ Laboratory data including chain of custody

Boring or excavation logs

Topographic/Aerial maps

Received by OCD: 4/16/2020 10:04:02 AM
State of New Mexico
Page 4
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: <u>3/20/2020</u>			
email:Kyle_Littrell@xtoenergy.com	Telephone: (432)-221-7331			
OCD Only				
Received by:	Date:			

10:04:02 AM State of New Mexico

Incident ID	
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 must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
☐ Description of remediation activities	
and regulations all operators are required to report and/or file certar may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
Signature:	
email:Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by:	Date:
Printed Name:	Title:

Received by OCD: 4/16/2020 10:04:02 AM District II 811 S. First St., Artesia, NM 88210

District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV

State of New Mexico **Energy Minerals and Natural Resources**

Oil Conservation Division 1220 South St. Francis Dr. Revised August 8, 2011

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

Release Notification and Corrective Action OPERATOR Name of Company: BOPCO, I.P. 2/673C Contact: Tony Savoie Address: \$22 W. Mermod, Suite 784 Carishad, N.M. 88220 Facility Name: Delaware "C". Tank Battery, same well pad as facility Type: Exploration and Production the PLU-153 Surface Owner: Federal Mineral Owner: Federal Mineral 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 Eddy Latitude N 32.248735 Longitude W 103.918797 NATURE OF RELEASE Type of Release: Crude oil and produced water Source of Release: Produced water tank Was Immediate Notice Given? Yes No Not Required By Whom? Was a Watercourse Reached? Yes No Not Required By Whom? Was a Watercourse was Impacted, Describe Pully.* 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 saction stopped the spill until the impact on the pumps could be removed around the tanks was hand excuvated and placed on the pad are near the tank battery. All of the impacted soil that could be removed around the tanks was hand excuvated and placed on the pad are near the tank battery. All of the impacted soil that could be removed around the tanks was hand excuvated and placed on the pad are near the tank battery. All of the impacted soil that could be removed around the tanks was hand excuvated and placed on the pad are near the tank battery. All of the impacted soil that could be removed around the tanks was hand excuvated and placed on the pad are near the tank battery. All of the impacted soil that could be removed around the tanks was hand excuvated and placed on the pad are near the tank battery. All of the impacted soil that could be removed around the tanks was hand excuvated and placed on the pad are near the tank battery. All of the impacted soil that could be remo	1220 S. St. Fran	icis Dr., Sant	a Fe, NM 8750:	5	Sa	ınta l	Fe, NM 875	505						
Name of Company: BOPCO, L.P. 260 737 Contact: Tony Savoie Facility Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware "C" Tank Battery, same well pad as feeling to Name: Delaware														
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Facility Name: Delaware "C" Tank Battery, same well pad as Facility Type: Exploration and Production Mineral Owner: Federal	Name of Co	ompany: B	OPCO, L.P.	260	0737		·		e					
Mineral Owner: Federal Mineral Owner: Federal API No. 30-015-31412							+							
Location of Release: Crude oil and produced water Type of Release: Produced water tank Source of Release: Produced water tank Passage Pas			are "C". Tan	k Battery	, same well pad	as	Facility Typ	e: Explor	ration a	and Prod	uction			
Latitude No. Section G Section G Section G Section Secti	Surface Ow	ner: Feder	al		Mineral C	wner	: Federal				API No	. 30-015-3	1412	
Latitude N 32.248735 Longitude W 103.918797 NATURE OF RELEASE Type of Release: Crude oil and produced water Source of Release: Produced water tank Was Immediate Notice Given? Yes No Not Required Date and Hour of Occurrence: B18/12 4:00 p.m.					LOCA	TIC	ON OF RE	LEASE						
NATURE OF RELEASE Type of Release: Crude oil and produced water Volume of Release: 10 bbls crude volume of Release: 10 bbls crude volume of Release: 10 bbls crude volume of Release: 10 bbls produced water volume of Release: 10 bbls produced vater volume of Release: 10 bbls produced water volume of Release: 10 bbls produced vater volume of Releases: 10 bbls produced vater volume of Relea		1			Feet from the	Nort	th/South Line	Feet from	n the	East/We	est Line			
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Type of Release: Crude oil and produced water Volume of Release: 10 bbls groduced water Date and Hour of Occurrence: Bright of Course of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Course of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Course of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Course of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Date and Hour of Discovery: Bright of Release: 10 bbls produced water Bright of Release: 10 bbls Bright of Releas					NAT	'URI	E OF REL	EASE						
Date and Hour of Occurrence: Date and Hour of Discovery:	Type of Rele	ase: Crude	oil and produc	ed water			Volume of	Release: 1			Volume R	Recovered: N	lone	
Was Immediate Notice Given?	Source of Re	lease: Produ	uced water tan	ık							Date and	Hour of Dis	coverv:	
By Whom? Date and Hour: 8/20/12 8:30 a.m. If YES, Volume Impacting the Watercourse. Yes No					····		8/18/12 at	4:00 p.m.						
Was a Watercourse Reached? Yes No If YES, Volume Impacting the Watercourse. RECEIVED SEP 06 2012 NMOCD ARTESIA 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 Operm 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. The 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. OIL CONSERVATION DIVISION Approved by Environmental Specialist: Signed By With Boundaries Approved by Environmental Specialist: Signed By With Boundaries Approved Date: OCT 10 2012 Expiration Date: Conditions of Approval: Attached Date:	Was Immedia	ate Notice (Yes 🗵	No 🗌 Not Re	quire			erson to	Randy D	ade			
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. OIL CONSERVATION DIVISION Approved by Environmental Specialist: Signed By Approved by Environmental Specialist: Approval Date: OCT 10 2012 Expiration Date: Conditions of Approval: Attached Date: 9/5/12 Phone: 432-556-8730							Date and Hour: 8/20/12 8:30 a.m.							
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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. OIL CONSERVATION DIVISION Signature: Printed Name: Tony Savoie Approved by Environmental Specialist: Signed By Approved By E-mail Address: tasavoie@basspet.com Conditions of Approval: Attached Remediation per OCD Rules &	regulations al	l operators a	are required to	report an	d/or file certain re	elease	notifications at	nd perform	correct	ive action	s for rele	ases which	may en	danger
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. OIL CONSERVATION DIVISION Signature: Ory Savoie Approved by Environmental Specialist: Signed By Mile Beautiful Beauti	should their o	perations ha	ave failed to a	dequately	investigate and re	media	te contaminati	on that pos	e a thre	at to grou	nd water,	surface wa	ter, hun	nan health
Signature: 1 ory Saucies Printed Name: Tony Savoie Approved by Environmental Specialist: Signed By Mile Samuese Approval Date: OCT 1 0 2012 Expiration Date: E-mail Address: tasavoie@basspet.com Conditions of Approval: Attached Attached Remediation per OCD Rules &	or the environ	ment. In ac	ddition, NMO	CD accept	tance of a C-141 r	eport	does not reliev	e the opera	tor of re	esponsibil	lity for co	mpliance w	ith any	other
Approved by Environmental Specialist: Signed By Mile Benerical Specialist: Signed By	ieuerai, state,	or local lav	vs and/or regu	iauons.				OII (ONIC	FRVA	TION	DIVISIO	N	
Approved by Environmental Specialist: Signed By M1/4 Standist Title: Waste Management and Remediation Specialist Approval Date: OCT 1 0 2012 Expiration Date: E-mail Address: tasavoie@basspet.com Conditions of Approval: Attached Phone: 432-556-8730 Remediation per OCD Rules &	s: /	1 0	Qe					<u> VIL (</u>	COIND	LICYA	TIOIA	. · · · · · · · · · · · · · · · · · · ·		
Printed Name: Tony Savoie Title: Waste Management and Remediation Specialist Approval Date: OCT 1 0 2012 Expiration Date: E-mail Address: tasavoie@basspet.com Conditions of Approval: Attached Date: 9/5/12 Phone: 432-556-8730 Remediation per OCD Rules &	Signature: Signature:									Q*3	D. W.	he k	Carry ser.	
E-mail Address: tasavoie@basspet.com Conditions of Approval: Date:9/5/12 Phone: 432-556-8730 Remediation per OCD Rules &	Printed Name	: Tony Savo	oie				Approved by	Environme	ental Sp	ecialist:	Signed	шу <u>уч (//</u>		
E-mail Address: tasavoie@basspet.com Conditions of Approval: Attached Date: 9/5/12	Title: Waste N	/Janagemen	t and Remedia	ation Spec	ialist		Approval Dat	e: OCT	10:	2012 Ex	piration [Date:		
Date:9/5/12 Phone: 432-556-8730 Remediation per OCD Rules &														
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		ional Shee	ts If Necess		mone: 432-556-87			•			_	っロ	0	1305

PROPOSAL NOT LATER THAN:
November 10, 2012

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: 3	OGRID: 5380			
Contact Nam	ne: Kyle Lit	trell		Contact To	Contact Telephone: (432)-221-7331			
Contact email: Kyle_Littrell@xtoenergy.com			om	Incident #	Incident #: 2RP-1305			
Contact mail NM 88220	ing address:	522 W. Mermod,	Suite 704 Carlsba	d,				
			Location	of Release S	ource			
Latitude 32.2	48735			Longitude -	-103.918797			
			(NAD 83 in dec	cimal degrees to 5 decir				
Site Name D	elaware "C"	Tank Battery		Site Type	Exploration and Production			
Date Release	Discovered	8/18/2012		API# (if app	plicable) 30-015-31412			
Unit Letter	Section	Township	Danga	Cour				
G	6	24S	Range 30E	Edd				
			002					
Surface Owner	r: State	⊠ Federal □ Tı	ribal Private (N	Name:)			
			Noture and	l Volume of l	Dalaasa			
			Nature and	i voiume of i	Release			
Ma 1 0''	Materia			calculations or specific	e justification for the volumes provided below)			
Crude Oil		Volume Release			Volume Recovered (bbls) 0 bbls			
⊠ Produced	Water		ed (bbls) 20 bbls		Volume Recovered (bbls) 0 bbls			
		Is the concentrate produced water	tion of dissolved cl	hloride in the	☐ Yes ☐ No			
Condensa	ite	Volume Release			Volume Recovered (bbls)			
Natural G	as	Volume Release	ed (Mcf)		Volume Recovered (Mcf)			
Other (de	scribe)	Volume/Weight	Released (provide	units)	Volume/Weight Recovered (provide units)			
Cause of Rele	ease							
					ened within 20 minutes after the tanks started to spill over. The			
					ly 2,000 square feet of pasture area west of the tank battery. sampled and backfilled to allow for the containment to be re-			
built, and the li	ner installed.							

Received by OCD: 4/16/2020 10:04:02 AM
State of New Mexico
Page 2
Oil Conservation Division

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Paga	70	01	r ') A	
Page	41	\boldsymbol{v}	45	v

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

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate no No, late notification was	otice given to the OCD? 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 rele	ease has been stopped.
☐ The impacted area ha	s been secured to protect human health and the environment.
Released materials ha	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain why:
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are public health or the environi failed to adequately investig	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: Kyl	<u>e Littrell</u> Title: <u>SH&E Supervisor</u>
Signature:	Date: <u>3/20/2020</u>
email: _Kyle_Littrell@xto	renergy.com Telephone: 432-221-7331
OCD Only	
Received by:	Date:

Mate of New Mexico

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 vercontamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	
 Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well Field data 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 	ls.
Boring or excavation logs	

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.

Photographs including date and GIS information

☐ Laboratory data including chain of custody

Topographic/Aerial maps

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State of New Mexico
Page 4
Oil Conservation Division

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

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a threaddition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email:Kyle_Littrell@xtoenergy.com	Telephone: (432)-221-7331
OCD Only	
Received by:	Date:

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Incident ID	
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.

	11 NMAC					
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)						
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)					
☐ Description of remediation activities						
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance o should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.					
Signature:						
email:Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331					
OCD Only						
Received by:	Date:					
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.					
Closure Approved by:	Date:					
Printed Name:	Title:					

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

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division

RECEIVED

Form C-141 Revised August 8, 2011

OCJubini 12012 to appropriate District Office in accordance with 19.15.29 NMAC.

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 1220 South St. Francis Dr. Santa Fe, NM 87505 NMOCD ARTESIA												
Release Notification and Corrective Action												
nJMh	12311	2959	3			OPERA	ГOR			al Report	Final Rep	ort
Name of Co	mpany: B	OPCO, L.P.	2	60737		Contact: To						
				oad, N.M. 88220 , same well pad			No. 575-887-7 e: Exploration		aduction			\dashv
the PLU-15			K Dallery	same wen pau	as	racinty Typ	Exploration					
Surface Ow	ner: Feder	al		Mineral O	wner:	Federal			API No	. 30-015-31	412	
				LOCA	OIT	N OF REI	LEASE					
Unit Letter G	Section 6	Township 24S	Range 30 E	Feet from the	North	/South Line	Feet from the	East/	West Line	County		
. U	0	243	30 E							Eddy		
				Latitude N 32.	2487 3	5 Longitud	e <u>W 103.9187</u>	97				
						OF REL						
Type of Rele	ase: Produc	ed water					Release: 650 b	bls	Volume F	Recovered: 0	bbls	
Source of Re	lease: 8" su	ction line to S	WD H-pu	mp		Date and H	our of Occurre			Hour of Disc	overy:	
						8/19/12 tin a.m. 9//	ne approximatel	ly12:00	-8/19/122 9/19/12			
Was Immedia	ate Notice C		Yes 🗍	No □ Not Re	anirad	If YES, To		ov. #104 c			or M	
By Whom? T	ony Savoje			NO I NOT KE	quireu		our: 8/19/12 at			os with the E)LIVI	\dashv
Was a Water	course Reac	hed?		 			lume Impacting					ヿ
_			Yes 🛚									
If a Watercou	rse was Imp	pacted, Descri	be Fully.*									
												_
Describe Cau A connection				i Taken.* e H-pump failed, t	he pur	nps were shut	down upon disc	covery and	d the line w	as repaired th	he next morning.	
Describe Are	A ffeeted a	and Classum A	Cation Tale	an *		<u></u>	·			<u> </u>		\dashv
The area arou	nd the SWI) battery, the	road and p	asture were impac							y recent releases a	ıt
				termine the vertica mended guidelines			ntainment and	all of the	impacted ar	eas. The spil	l will be	
				is true and comple	-		knowledge and	undarata	ad that nura	want to NIMC	CD rules and	_
regulations al	l operators a	are required to	report an	d/or file certain re	lease n	otifications an	d perform corre	ective act	ions for rele	ases which n	nay endanger	
public health should their o	or the envir perations h	onment. The ave failed to a	acceptance dequately	e of a C-141 repor investigate and re	t by th mediat	e NMOCD ma	rked as "Final on that nose a th	Report" d	loes not reli	eve the opera	itor of liability er human health	Ì
or the environ	ment. In ac	ddition, NMO	CD accept	ance of a C-141 r	eport d	loes not relieve	the operator o	f responsi	bility for co	mpliance wi	th any other	
federal, state,	or local law	vs and/or regu	iations.		<u>-</u>	7.7	OIL CON	ISERV	ATION	DIVISIO		\dashv
Signature:	i oru	, Da	5 (1111)					···		11		
			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Approved by 1	Environmental	Specialis	Gioned By	11/4	Bunner	<u>-</u>
Printed Name	: 10ny Savo	oie			\dashv	NOV	0 6 2012					\dashv
Title: Waste N	/lanagemen	t and Remedia	ation Spec	ialist		Approval Date	:		Expiration I	Date:		4
E-mail Addres	s: tasavoie	@basspet.com	1			Conditions of	Approval:			Attached	П	
Date:9/28/12			F	Phone: 432-556-87	730					- Risched	_	
Attach Addit	ional Shee	ts If Necessa					ation per OC SUBMIT REN			21	ZP-13	58

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

Responsible Party: XTO Energy, Inc

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

OGRID: 5380

Contact Name: Kyle Littrell			Contact Te	Contact Telephone: (432)-221-7331			
Contact email: Kyle_Littrell@xtoenergy.com			Incident #	Incident #: 2RP-1383			
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220							
			Location	of Release So	ource		
Latitude 32.2	48735		(NAD 83 in dec	Longitude <u>-</u> cimal degrees to 5 decin	-103.918797 nal places)		
Site Name D	elaware "C"	Tank Battery		Site Type	Exploration and	Production	
Date Release	Discovered	9/19/2012		API# (if app	olicable) 30-015-31	412	
Unit Letter	Section	Township	Range	Cour	nty		
G	6	24S	30E	Edd	ly		
	Material		l that apply and attach	d Volume of l	justification for the v	volumes provided below)	
Crude Oil		Volume Release	d (bbls)		Volume Recov	ered (bbls)	
Noduced Produced	Water	Volume Release	d (bbls) 650 bbls		Volume Recovered (bbls) 0 bbls		
		Is the concentrate produced water >	ion of dissolved c >10,000 mg/l?	hloride in the	☐ Yes ☐ No		
Condensa	te	Volume Release			Volume Recov	ered (bbls)	
Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units)			Volume/Weigh	nt Recovered (provide units)			
Cause of Rel	ease				1		
		charge pumps to the F e pasture were impact		numps were shut down	upon discovery and	the line was repaired. The area around the	

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State of New Mexico
Page 2
Oil Conservation Division

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

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate no	otice given to the OCD?
	MOCE 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 rele	ease has been stopped.
☐ The impacted area ha	s been secured to protect human health and the environment.
Released materials ha	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain why:
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and
public health or the environr failed to adequately investig	required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have at and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: <u>Kylo</u>	e Littrell Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: <u>Kyle_Littrell@xto</u>	energy.com Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:

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

Site Assessment/Characterization

 $This information \ must be provided \ to \ the \ appropriate \ district \ of fice \ no \ later \ than \ 90 \ days \ after \ the \ release \ discovery \ date.$

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?					
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 vercontamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	rtical extents of soil				
Characterization Report Checklist: Each of the following items must be included in the report.					
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well Field data	ls.				
Data table of soil contaminant concentration data					
Depth to water determination					
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 data and CIS information					
Doring of excavation logs Photographs including date and GIS information					
☐ Topographic/Aerial maps					
■ Laboratory data including chain of custody					

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

Received by OCD: 4/16/2020 10:04:02 AM
State of New Mexico
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Oil Conservation Division

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

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a threaddition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
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:

Page 38 of 240

Incident ID		
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.

Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office			
☐ Laboratory analyses of final sampling (Note: appropriate ODG	C District office must be notified 2 days prior to final sampling)			
Description of remediation activities				
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	nations. The responsible party acknowledges they must substantially anditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.			
Signature:	Date: <u>3/20/2020</u>			
email:Kyle_Littrell@xtoenergy.com	Telephone:432-221-7331			
OCD Only				
Received by:	Date:			
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.			
Closure Approved by:	Date:			
Printed Name:	Title:			

<u>District 1</u>. 1625 N. French Dr., Hobbs, NM 88240 District III
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410 **District IV**

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

Form C-141 Revised August 8, 2011

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

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

			Rel	ease Notific	atio	n and C	orrective A	ction		and the second second second second		A STATE OF THE PERSON ASSESSMENT OF THE PERSON
nHMP1411828179			OPERATOR Initial Report Final Re			Final Repor						
Name of Co	ompany: Be	OPCO, L.P.		40737		Contact: T	ony Savoie					
Address: 52	2 W. Men	nod, Suite 7	04 Carlsl	oad, N.M. 88220)	Telephone	No. 575-887-73	29				
Facility Nat		are "C" Tan	k Battery	, same well pad	as	Facility Ty	pe: Exploration	and Proc	luction			
Surface Ow	ner: Feder	al		Mineral O	wner	: Federal			API No	0. 30-015-3	1412	
				LOCA	TIO	N OF RE	LEASE					
Unit Letter Section Township Range Feet from the North/				h/South Line orth	Feet from the 1980	East/W East	est Line	County Eddy				
				Latitude N 32.	24886	66 Longitud	le <u>W 103.91909</u>	<u>6</u>				
				NAT	<u>URF</u>	E OF REL	EASE		_			
Type of Rele							f Release: 200 bbl			Recovered: 1		
Source of Re			line			4/21/14 ti	Hour of Occurrence me unknown			Hour of Dis t 12:30 p.m <u>.</u>		
Was Immedia	ate Notice G		Yes 🗌	No 🗌 Not Re	quired	If YES, T NMOCD	o Whom? emergency #104 a	ınd the BI	.M			
By Whom? T	ony Savoie					Date and	Hour: 4/21/14 at 2	:30 p.m.				
Was a Watercourse Reached? ☐ Yes ☑ No			If YES, Volume Impacting the Watercourse.									
If a Watercou	rse was Imp	oacted, Descri	be Fully.*			-			i	ECEINAPR 24)
Describe Cause of Problem and Remedial Action Taken.* A 3" high pressure fiberglass line coupling broke in the coupling threads. The connection was replaced.					A							
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.												
		1	_				OIL CONS	<u>SERVA</u>	TION	<u>DIVISIO</u>	<u>N</u>	
Signature:	ion	Daves	*				m		//			
Printed Name:	Tony Savo	ie			\rightarrow	Approved by	Environmental Sp	becialist:	1- P	m		
Title: Waste M	1anagement	and Remedia	tion Speci	alist		Approval Dat	e: 4/28/1c1	Ex	, piration Γ	Date: NA	,	
E-mail Addres	s: tasavoie@	basspet.com				Conditions of	Approval:			Attached		
Date:4/24/14 Attach Additi	onal Sheet	s If Necessa		none: 432-556-87	11) ·		per OCD Rule & 0 y BLM . <u>SUBMIT I</u>		TION -			
Audu Audu	onai Sheek	s ii inecessa	ιy				SAL NO LATER T			ZRP-	LZ C.	· Y

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: 5	5380	
Contact Name: Kyle Littrell			Contact Te	Contact Telephone: (432)-221-7331		
Contact ema	il: Kyle_Lit	trell@xtoenergy.c	om	Incident #:	: 2RP-2264	
Contact mail NM 88220	ling address:	522 W. Mermod,	Suite 704 Carlsba	d,		
			Location	of Release So	ource	
Latitude 32.2	248866		(NAD 83 in dec	Longitude <u>-</u> cimal degrees to 5 decim	-103.919096 mal places)	
Site Name D	elaware "C"	Tank Battery		Site Type	Exploration and	d Production
Date Release	Discovered	4/21/2014		API# (if app	olicable) 30-015-3	31412
Unit Letter	Section	Township	Range	Coun	nty	
G	6	24S	30E	Edd	ly	
	Materia			l Volume of I		volumes provided below)
Crude Oi	1	Volume Release			Volume Recovered (bbls)	
Noduced Produced	Water	Volume Release	ed (bbls) 200 bbls		Volume Reco	vered (bbls) 15 bbls
		Is the concentrate produced water	tion of dissolved cl >10,000 mg/l?	hloride in the	Yes N	0
Condensa	ate	Volume Release	ed (bbls)		Volume Reco	vered (bbls)
Natural C	Gas	Volume Release	ed (Mcf)		Volume Recovered (Mcf)	
Other (describe) Volume/Weight Released (provide units)			e units)	Volume/Weig	ght Recovered (provide units)	
Cause of Rel	ease					
of pad area, ap	proximately 42	200 square feet of pas	sture area, and approx	cimately 1300 square f	feet of lease road.	lease impacted approximately 4000 square feet The release ponded and followed a spill path open releases will be addressed at that time.

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Oil Conservation Division

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Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate no Yes, by Tony Savoie to N	otice given to the OCD? IMOCD 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 rele	ease has been stonned
	s been secured to protect human health and the environment.
	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and managed appropriately.
If all the actions described	d above have not been undertaken, explain why:
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are public health or the environr failed to adequately investig	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have atte and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: Kylo	e Littrell Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: <u>Kyle_Littrell@xto</u>	<u>renergy.com</u> Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:

State of New Mexico

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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?					
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?					
Are the lateral extents of the release overlying a subsurface mine?					
Are the lateral extents of the release overlying an unstable area such as karst geology?					
Are the lateral extents of the release within a 100-year floodplain?					
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ⊠ No				
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil				
Characterization Report Checklist: Each of the following items must be included in the report.					
 Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well Field data Data table of soil contaminant concentration data 	ls.				
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.

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I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the Gailed to adequately investigate and remediate contamination that pose a threaddition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
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:

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Incident ID	
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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 in	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 must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regular restore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification with 19.15	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: Kyle Littrell@xtoenergy.com	Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by:	Date:
Printed Name:	Title:



Date: BH08 8/20/2018 Site Name:

BH or PH Name:

PLU Delaware C SWD

A proud member	Compliance · Engineering · Remediation	RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-138	
of WSP	Compliance · Engineering · Nemediation	LTE Job Number:	2RP-2264	
LITHO	DLOGIC / SOIL SAMPLING LOG	Logged By: JH	Method:	
Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:	
	Chloride, PID			
Comments:	<u> </u>			

omm	ente.
OHIH	CIII.

Second S	Comn								
dry 1 0.7 2' 2 Reddish brown clay with silt 3 5 6 7 7 8 8 9 10	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth	Depui	USCS/Rock Symbol	Lithology/Remarks
	dry	1	0.7			- - - -	1 2 3 4 5 6 7 7 8 8 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10		Reddish brown clay with silt



A proud member of WSP Compliance · Engineering · Remediation RP or Incident Number: 2RP-1304, 2RP-1205, 2RP-1305, 2RP-1305, 2RP-1305, 2RP-1305, 2RP-1305, 2RP-1205, 2RP-1305, 2RP-1205, 2RP-1305, 2RP-1205, 2RP-1305,		PLU Delaware C SWD	ne:		Carlsbad, New Mexico 88220							
LITHOLOGIC / SOIL SAMPLING LOG Lat/Long: Field Screening: Chloride, PID Comments: Chloride, PID	-1305, 2RP-1				Engineering · Remediation			A proud member of WSP Compliance · Engine				
Lat/Long: Field Screening: Hole Diameter: Total Depth: Chloride, PID Comments:												
Chloride, PID Comments:												
Comments:		1 otai Depth:	uneter:								Lat/Lot	
# Sample Depth Dep				ı			,				ents:	Comme
Sample Depth Depth Depth Lide 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				ı		l I	1		ı			1
Moisti Confe Confe (ft bgs) Confe (ft bgs) Confe Confe (ft bgs) Confe		Remarks	Lithology/l		USCS/Rock Symbol	Depth (ft bgs)	Depth	Sample #	Staining	Vapor (ppm)	Chloride (ppm)	Moisture Content
dry 0.8 1.0 2' 2 Reddish brown clay with silt 5			clay with silt	Reddish b		1 2 3 4 5 6 7 7 8 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	2' -			1.0	0.8	dry



BH or PH Name:	Date:
BH10	8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-138

A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Field Screening: Hole Diameter: Total Depth: Lat/Long: Chloride, PID Comments: USCS/Rock Symbol Moisture Content Chloride (ppm) Staining Sample # Sample Vapor (ppm) Depth Lithology/Remarks Depth (ft bgs) (ft bgs) 0 1 1.2 1.9 2' 2 Reddish brown clay with silt dry 3 4 5 6 7 8 9 10 11 12



BH or PH Name:	Date:
BH11	8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-13
TERRITAL 1	ADD 2274

A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Field Screening: Hole Diameter: Total Depth: Lat/Long: Chloride, PID Comments: USCS/Rock Symbol Moisture Content Chloride (ppm) Staining Sample # Sample Vapor (ppm) Depth Lithology/Remarks Depth (ft bgs) (ft bgs) 0 1 1.0 2' 2 1.4 Reddish brown clay with silt dry 3 4 5 6 7 8 9 10 11 12



BH or PH Name:	Date:
BH12	8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-13

A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Field Screening: Hole Diameter: Total Depth: Lat/Long: Chloride, PID Comments: USCS/Rock Symbol Moisture Content Chloride (ppm) Staining Sample # Sample Vapor (ppm) Depth Lithology/Remarks Depth (ft bgs) (ft bgs) 0 1 2' 2 1.6 1.8 Reddish brown clay with silt dry 3 4 5 6 7 8 9 10 11

12



Compliance · Engineering · Remediation

Chloride, PID

 BH or PH Name:
 Date:

 BH13
 8/20/2018

 Site Name:
 PLU Delaware C SWD

 RP or Incident Number:
 2RP-1304, 2RP-1205, 2RP-1305, 2RP-138

 LTE Job Number:
 2RP-2264

LITHOLOGIC / SOIL SAMPLING LOG

| Field Screening: | Hole Diameter: | Total Depth:

ı	
ı	Comments:

Lat/Long:

Comm	ents:							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					1	0		
					_	<u> </u>		
					-	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
	3.2	0.4			/ -	- ' -		medium tan, sandy toann with canche
					-	8		
					-	- °		
					-	9		
					-	-		
	3.0	0.3			10'	10		Same as above
						11		
					-	_		
	1	0.5			12'	12		Medium tan sandy loam



BH or PH Name: Date: BH14 8/21/2018

PLU Delaware C SWD Site Name:

A proud member of WSP Compliance · Engineering · Remediation RP or Incident Number: 2RP-1304, 2RP-1205, 2RP-1305, 2RP-1383

01 1101	, , ,	LTE Job Number:	2RP-2264
	LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JH	Method:
Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Chloride, PID		
Comments:			

Comme	ents:							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					1	0		
					_	_		
					-	1		
	2.6	2.7			2'	- - 2		med. Brown silty sand loam
	2.0	2.7				- ⁻		ince. Brown sitty saile toain
	1.8	2.8			3'	3		same as above
					-	-		
					-	4		
					_	-		
					-	5		
					-	- - 6		
					-			
					-	7		
					-	-		
					_	8		
					-	-		
					-	9		
					-	10		
					-	- -		
					- -	11		
					- -	- -		
					-	12		

LIE
A proud member of WSP

Lat/Long:

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

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

BH or PH Name: Date: BH15 8/21/2018

LTE Job Number:

Site Name: PLU Delaware C SWD

RP or Incident Number: 2RP-1304, 2RP-1205, 2RP-1305, 2RP-138

2RP-2264

LITHOLOGIC / SOIL SAMPLING LOG Logged By: JH Method:
Field Screening: Hole Diameter: Total Depth:

Lat/Lo	nig.				Field Scree Chloride, P			Hole Diameter: Total Depth:			
Comn	nents:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lith	ology/Remarks		
	2	0.5			2' -	1 0 - 1 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12		reddish brown clay			



BH or PH Name: Date: BH16 8/21/2018

Site Name: PLU Delaware C SWD

Compliance \cdot Engineering \cdot Remediation RP or Incident Number: 2RP-1304, 2RP-1205, 2RP-1305, 2RP-138 LTE Job Number: 2RP-2264

LITHOLOGIC / SOIL SAMPLING LOG Logged By: JH Method:

Lat/Long: Field Screening: Hole Diameter: Total Depth:

Lat/Lo					Field Scree Chloride, F			Hole Diameter:	Total Depth:	
Comm	ents:							•	•	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lith	ology/Remarks	
	1.0	0.4			2'	1 0 1 2 3 4 4 5 5 6 7 7 8 8 7 9 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		silt loam, sandy in parts		

LT Envir	ronmental, Inc			LT En 508 W Carlsbad,	vironmer est Steve New Me	ntal, Inc. ns Street xico 882.	20	Identifier: PTOJECT Name:	Date: (v · V4 · pq RP Number: VEP -
I at/I an		LITH	OLOG	IC / SO	IL SAMI	PLING L	OG	PLU Delaware C	1205,1305,1305,1383,
Lat/Long			le i		Field Scre	ening:	-	Logged By: SU Hole Diameter:	Method: Trackhoe
Commer	nts:					(PID)	Chloride		Method: Trackhee Total Depth:
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Litholog	gy/Remarks
D	616	0.0	12	PHIT	0 1		SP-sm	La Sandi Brownino odor, no sta	in, m-f, poorly graded
0	493	0.0	7	PH174	2	r		trace silt	
				10	1			TO Q V	

	Lat/Lons		LITHO			Vironment est Steven New Mexi L SAMP	LING L			Identifier: PHODE AW Logged By: 5 Hole Diameter:	L	Date: 10.24.19 RP Number: TRP 1205,1304,1305,1383, 2269 Method: Trackhoz Total Depth: 21	
	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)		k			Lithology/Re		
430	0	554	6.0	2	PIHB.	1		SP-SM	1-2 5 om 8,	Brown, mo	odor, no stat	in, m-f, poorly graded	
	0	554	0.0			2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			10	e z'			

	LT Envir	onmental, Inc.		C	LT Env 508 We Carlsbad,	vironmen est Steven New Mex	tal, Inc. s Street ico 8822	20		Identifier: PHIP Project Name:	RPN	: 2 · 24 · 19 Jumber: 2 R.P.
										De Delanere C	n	5,1304,1305,1387,2269
	7 //		LITH	DLOGI	C / SOI	L SAMP	LING L	OG		Logged By: 54		od: Trackhoe
	Lat/Lon					Field Scree	ening:	Chloride		Hole Diameter:		Depth:
	Comme	nts:					1110	Chloride				Ž ⁱ
	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Litholog	gy/Remarks	
b 35	0	554	0.0	7	PH19	0 1	1	SP-sm	1-2 Sani	l, from no odor, m	f poorly	graded, trace silt
b 40	D	150	0.0	N	PHIA	2	2					
						3 4 5 6 7 8 9						

LT Environme	-		C	LT En 508 We Carlsbad,	vironmen est Steven New Mex	t al, Inc. s Street ico 8822	20	Identifier: PH 10 Project Name: PLV Delawe C	Date: 10: 24:19 RP Number: 12P		
		LITHO	LOGI	C /SO	IL SAMP	LINGL	OG.		1205,1304,1305,138	3,20	
_at/Long:					Field Scree	ening:		Logged By: JL Hole Diameter:	Method: track here Total Depth:		
Comments:						PID	Chloride		21		
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Litholo	gy/Remarks		
D 5	42	0.0		h	pHzo	0 1		SP-sm	Sand , Brown, ho odor, no stains m-f, poorly grad		
D 3	342	0.0	H	PHroA	2	2		trace silt	1 91	aver	
					3 4 4 5 7 8 9			Ther			

LT Environmental, Inc.		(LT Env 508 We Carlsbad,	vironment est Steven New Mex	tal, Inc. s Street ico 8822	0		Identifier: PIF ZI Project Name: PW Delaw	ne C	Date: [0.24.19 RP Number: 2RP [207,1704,1707,17	83,746
	LITHO	LOG	IC / SO	L SAMP	LING L	OG		Logged By: 5	U E	Method: Truck hoe	
Lat/Long:				Field Scree	ening:			Hole Diameter:		Total Depth:	
Comments:					(EID	Chloride				21	
Moisture Content Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)		Soil/Rock Type			Litholog	gy/Remarks	
D 1015	0.0	7 7	PHZI	1 2	1	SP-SM	Sand,		dur, no sta	in, m.f, poorly graded, to	ice si H
				3 4 5 7 8 9				TD @	2'		

Anon	onmental, Inc.		C	LT Env 508 We Carlsbad,	rironment st Stevens New Mexi	t al, Inc. s Street ico 8822	0		Identifier: Project Name: PW Delawe C	Date: 10 - 24 - 19 RP Number:
		LITHO	DLOGI	C /SOI	L SAMP	LINCL	0.0			
Lat/Lon	g:	LITTIC	LOGI	C / 501	Field Scree		OG .		Logged By: 5L Hole Diameter:	Method: Trackhoe
Commer	nts:					PID	Chloride		Diamoter.	Total Depth: V
					100					
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Litholog	gy/Remarks
D	342	0.0	n	PHZZ	0 1	,	SP-SM	1-2 Sand, B	rown, to odor, no st	lain m-6, poolly gradelitrace sit
0	150	0.0	2	pHILA	2	2				
					3 4 5 5 6 7 7 7 8 9 10 11 11 11 12 12				70021	

-	mmental, Inc.		C	LT Env 508 We arlsbad,	vironment est Steven New Mex	tal, Inc. s Street ico 8822	0	Identifier: PH 23 Project Name: PLU Delawer C	Date: 14.24.19 RP Number: VRA 1285.1364,1365,1383,246
		LITHO	LOGI	C /SOI	L SAMP	LING	OC		
Lat/Long			2001	0 750	Field Scree	ening:	7	Logged By: \$1 Hole Diameter:	Method: Truck he
Commen	ts:					PID	Chlorido	Note Diameter.	Total Depth:
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Litholo	ogy/Remarks
D	90/1	0.0	N	etha	0 1	1	SP-SIM	1-2 sand, Brown, no odbs trace silt	, no stain, m-fipearly graded
0	001	0.0	N	PH23A	2	2		THE NIT	
±					3 4 5 5			70 e 1'	
				,	6				
					9				
					10				
					12				

	LT Environ	Pamental, Inc.		C	LT Env 508 We arlsbad,	vironment est Stevens New Mexi	t al, Inc. s Street ico 8822	0	Identifier: PH24 Project Name: PV Delawe C	Date: 10.74.19 RP Number: 14.P 17.05,13.04,13.05,13.83,72.64
			LITHO	LOGI	C / SOI	L SAMP	LING LO	Logged By: {L		
	Lat/Long	:				Field Scree	Hole Diameter:	Method: Truck hoe Total Depth:		
	Commen	ts:					PID)	Chloride		Total Depth:
	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Litholo	ogy/Remarks
1320	0	431	0.0	n	645A	0 1	1	jesm	1-2 Send, Brown, ho obs trace silt	or, no stain, m-fipoorly graded
						3 4 5 5 6 7 7 8 9 10 11 11 11			De 2'	



PHOTOGRAPHIC LOG



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



Photograph 3: View of well vegetated western pasture area.



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



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

PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY 32.248850, -103.919067





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 Vramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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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: Report Date: 18-DEC-18
Work Order Number(s): 575577
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.

Final 1.001



Project Id:

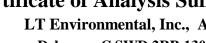
Certificate of Analysis Summary 575577

LT Environmental, Inc., Arvada, CO

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

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

Report Date: 18-DEC-18 Project Manager: Jessica Kramer



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

	Lab Id:	575577-0	001	575577-(002	575577-003		575577-004		575577-005		575577-	006
Analysis Paguastad	Field Id:	SS1		SS2		SS3		SS4		SS5		SS6	
Analysis Requested	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	-		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:		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								
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	Total Xylenes		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									
	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								
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								
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

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

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Jessica Kramer Project Assistant



Project Id:

Certificate of Analysis Summary 575577

LT Environmental, Inc., Arvada, CO

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

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



Contact:Adrian BakerReport Date:18-DEC-18Project Location:Carlsbad, NMProject Manager:Jessica Kramer

			_		1	ı
	Lab Id:	575577-007				
Analysis Requested	Field Id:	SS7				
Anaiysis Requesica	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				

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

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Jessica Vramer

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:

Result

2140

Cas Number

16887-00-6

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-001

Date Collected: 02.06.18 15.56

RL

24.9

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Analysis Date

02.13.18 19.46

Tech:

JUM

% Moisture:

Wet Weight

Analyst:

JUM

Date Prep:

02.13.18 15.00

Basis:

Units

mg/kg

Dil

5

Flag

Parameter

Seq Number: 3040997

Prep Method: TX1005P

% Moisture:

Tech: Analyst:

Chloride

ARM ARM

Analytical Method: TPH by SW8015 Mod

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



Date Received:02.07.18 08.00

LT Environmental, Inc., Arvada, CO

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

Soil

Lab Sample Id: 575577-001 Date Collected: 02.06.18 15.56

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

Matrix:

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		





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: Analyst: JUM

% Moisture:

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

ARM

% Moisture:

ARM Analyst:

Tech:

02.07.18 09.00 Date Prep:

Basis: Wet Weight

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		



SS₂

ALJ

Certificate of Analytical Results 575577



Date Received:02.07.18 08.00

Wet Weight

Basis:

LT Environmental, Inc., Arvada, CO

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

Soil

02.07.18 14.10

Lab Sample Id: 575577-002 Date Collected: 02.06.18 15.57

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

Date Prep:

Matrix:

Tech: ALJ % Moisture:

Seq Number: 3040647

Sample Id:

Analyst:

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		



SS₃

Certificate of Analytical Results 575577



LT Environmental, Inc., Arvada, CO

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

Soil

Lab Sample Id: 575577-003 Date Collected: 02.06.18 15.59 Sample Depth: 6"

Analytical Method: Inorganic Anions by EPA 300

Tech: JUM

Analyst: JUM Date Prep: 02.13.18 15.00 Basis: Wet Weight

Matrix:

Seq Number: 3040997

Sample Id:

 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

Tech: ARM

Analyst: ARM

Date Prep: 02.07.18 09.00

Basis:

% Moisture:

Wet Weight

Date Received:02.07.18 08.00

Prep Method: E300P

Prep Method: TX1005P

% Moisture:

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



Date Received:02.07.18 08.00

Wet Weight

LT Environmental, Inc., Arvada, CO

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

Soil

Lab Sample Id: 575577-003 Date Collected: 02.06.18 15.59 Sample Depth: 6"

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

Matrix:

Tech: ALJ % Moisture:

Analyst: ALJ Date Prep: 02.07.18 14.10 Basis:

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		



Analytical Method: Inorganic Anions by EPA 300

Certificate of Analytical Results 575577



Date Received:02.07.18 08.00

LT Environmental, Inc., Arvada, CO

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

Soil

Lab Sample Id: 575577-004 Date Collected: 02.06.18 16.01 Sample Depth: 6"

Prep Method: E300P

Tech: JUM % Moisture:

Analyst: JUM Date Prep: 02.13.18 15.00 Basis: Wet Weight

Matrix:

Seq Number: 3040997

Sample Id:

Parameter	Cas Number	Result	RL	1	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	r	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

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



Date Received:02.07.18 08.00

LT Environmental, Inc., Arvada, CO

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

Soil

Lab Sample Id: 575577-004 Date Collected: 02.06.18 16.01 Sample Depth: 6"

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

Matrix:

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

Soil

Lab Sample Id: 575577-005 Date Collected: 02.06.18 16.02 Sample Depth: 6"

Matrix:

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Date Received:02.07.18 08.00

Tech: JUM

% Moisture:

Analyst: JUM

Sample Id:

Date Prep: 02.13.18 15.00

Basis: V

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

% Moisture:

Tech: Analyst: ARM ARM

Date Prep: 02.07.18 09.00

Basis: Wet Weight

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



Date Received:02.07.18 08.00

LT Environmental, Inc., Arvada, CO

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

Soil

Lab Sample Id: 575577-005 Date Collected: 02.06.18 16.02 Sample Depth: 6"

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

Matrix:

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



Date Received:02.07.18 08.00

LT Environmental, Inc., Arvada, CO

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

Soil

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

Matrix:

Seq Number: 3040997

Sample Id:

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

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



Date Received:02.07.18 08.00

LT Environmental, Inc., Arvada, CO

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

Soil

Delaware C 5 WD 2RT -1303, 1304, 1303, 1203, 220

Lab Sample Id: 575577-006 Date Collected: 02.06.18 16.04

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

Matrix:

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		





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

Date Collected: 02.06.18 15.35

Sample Depth: 6"

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

JUM

% Moisture:

Seq Number: 3040997

JUM

Tech:

Analyst:

Lab Sample Id: 575577-007

Date Prep: 02.13.18 15.00 Basis: Wet Weight

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

% Moisture:

Tech:

Analyst:

ARM ARM

02.07.18 09.00 Date Prep:

Basis: Wet Weight

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



Date Received:02.07.18 08.00

LT Environmental, Inc., Arvada, CO

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

Soil

Lab Sample Id: 575577-007 Date Collected: 02.06.18 15.35 Sample Depth: 6"

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

Matrix:

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.

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

^{**} Surrogate recovered outside laboratory control limit.



MR

QC Summary 575577

LT Environmental, Inc.

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

Analytical Method: Inorganic Anions by EPA 300 E300P Prep Method: Seq Number: 3040997 Matrix: Solid Date Prep: 02.13.18

LCS Sample Id: LCSD Sample Id: 7639086-1-BSD 7639086-1-BKS MB Sample Id: 7639086-1-BLK

Spike LCS LCS Limits %RPD RPD Limit Units LCSD LCSD Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result 02.13.18 18:57 Chloride < 5.00 250 274 110 271 108 90-110 20 mg/kg

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

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

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

MS Sample Id: 575578-001 S MSD Sample Id: 575578-001 SD Parent Sample Id: 575578-001

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

Analytical Method: TPH by SW8015 Mod TX1005P Prep Method:

Seq Number: 02.07.18 3040461 Matrix: Solid Date Prep: MB Sample Id: 7638719-1-BKS LCSD Sample Id: 7638719-1-BSD LCS Sample Id: 7638719-1-BLK

LCS %RPD RPD Limit Units MB Spike LCS LCSD Limits Analysis LCSD Flag **Parameter** Result %Rec Date Result Amount Result %Rec 02.07.18 09:31 Gasoline Range Hydrocarbons (GRO) 972 97 70-135 < 8.00 1000 1090 109 11 35 mg/kg 02.07.18 09:31 70-135 4 35 Diesel Range Organics (DRO) 1000 1100 110 1150 < 8.13 115 mg/kg

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

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

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

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

LCS = Laboratory Control Sample A = Parent Result

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

Flag

Flag



QC Summary 575577

LT Environmental, Inc.

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

MSD

Result

Limits

MSD

%Rec

Analytical Method: TPH by SW8015 Mod

Matrix: Soil

TX1005P Prep Method:

Seq Number: 3040461 Parent Sample Id:

%Rec

Date Prep: 02.07.18 MSD Sample Id: 575430-001 SD

575430-001 Parent **Parameter**

MS Sample Id: 575430-001 S MS MS

%RPD RPD Limit Units Analysis Flag Date

Gasoline Range Hydrocarbons (GRO) 02.07.18 10:34 < 7.99 998 974 98 1090 109 70-135 11 35 mg/kg 99 35 02.07.18 10:34 Diesel Range Organics (DRO) 14.4 998 1000 1120 70-135 11 111 mg/kg

MS MS **MSD MSD** Limits Units Analysis Surrogate Flag %Rec %Rec Flag 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

Result

Spike

Amount

Result

Date Prep: 02.07.18

LCS Sample Id: 7638867-1-BKS LCSD Sample Id: 7638867-1-BSD MB Sample Id: 7638867-1-BLK

%RPD RPD Limit Units LCS LCS MB Spike Limits Analysis **LCSD LCSD Parameter** Date Result Amount Result %Rec %Rec Result 02.07.18 23:07 Benzene < 0.00202 0.101 0.0789 78 0.0706 71 70-130 11 35 mg/kg < 0.00202 Toluene 0.101 0.0831 82 0.0737 70-130 12 35 mg/kg 02.07.18 23:07 74 02.07.18 23:07 0.101 0.0937 93 71-129 10 35 Ethylbenzene < 0.00202 0.0851 85 mg/kg 70-135 m,p-Xylenes < 0.00403 0.202 0.184 91 0.168 84 9 35 mg/kg 02.07.18 23:07 91 0.0858 71-133 35 02.07.18 23:07 o-Xylene < 0.00202 0.101 0.0921 86 mg/kg

LCSD MB MB LCS LCS LCSD Limits Units Analysis **Surrogate** %Rec %Rec Flag Flag %Rec Flag Date 1.4-Difluorobenzene 90 90 90 80-120 % 02.07.18 23:07 02.07.18 23:07 4-Bromofluorobenzene 102 102 112 80-120 %

Analytical Method: BTEX by EPA 8021B

Seq Number:

Prep Method: SW5030B 3040738 Matrix: Solid 02.08.18 Date Prep:

7638875-1-BKS LCSD Sample Id: 7638875-1-BSD LCS Sample Id: MB Sample Id: 7638875-1-BLK

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

MB LCS LCSD MB LCS LCSD Limits Units Analysis **Surrogate** %Rec Flag %Rec Flag Flag Date %Rec 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 Relative Percent Difference LCS/LCSD Recovery Log Difference

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

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

LCS = Laboratory Control Sample

A = Parent Result

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



QC Summary 575577

LT Environmental, Inc.

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

 Analytical Method:
 BTEX by EPA 8021B
 Prep Method:
 SW 5030B

 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 8021BPrep Method:SW 5030BSeq Number:3040738Matrix:SoilDate Prep:02.08.18Parent Sample Id:575578-002MS Sample Id:575578-002 SMSD Sample Id:575578-002 SD

Spike MS %RPD RPD Limit Units MS MSD Limits Analysis **Parent MSD Parameter** Flag Result Amount Result Date %Rec Result %Rec 02.12.18 12:11 70-130 19 Benzene < 0.00202 0.101 0.103 102 0.125 125 35 mg/kg Toluene < 0.00202 0.101 0.0648 64 0.0677 68 70-130 4 35 02.12.18 12:11 mg/kg X 02.12.18 12:11 Ethylbenzene < 0.00202 0.101 0.0603 60 0.0673 67 71-129 11 35 X mg/kg 02.12.18 12:11 m,p-Xylenes 0.202 58 70-135 35 X < 0.00404 0.117 0.131 65 11 mg/kg 71-133 02.12.18 12:11 o-Xylene < 0.00202 0.101 0.060560 0.0674 67 11 35 mg/kg X

Surrogate	MS MS %Rec Flag	MSD MSD %Rec 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 Relative Percent Difference LCS/LCSD Recovery Log Difference
$$\begin{split} [D] &= 100*(C\text{-A}) \, / \, B \\ RPD &= 200* \mid (C\text{-E}) \, / \, (C\text{+E}) \mid \\ [D] &= 100*(C) \, / \, [B] \end{split}$$

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

LCS = Laboratory Control Sample A = Parent Result

A = Parent ResultC = MS/LCS Result

E = MSD/LCSD Result

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

Stafford, TX (281) 240-4200 Setting the Standard since 1990

El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Midland, TX (432) 704-5440

Phoenix, AZ (480) 355-0900

Client / Reporting Information	on	Project Information	700-12-5-12-1	Analytical Information	Matrix Codes
Company Name / Branch:		1	130	Ro 2	W = Water
330 Nah	1 #103	1	160	DRO, C	GW = Ground Water DW = Drinking Water P = Product
Contact: R	HENV. LON 432-BAY SLAY	1 XTD I TREAM	Colo Litters	1 8015 300. j	SL - Sludge OW = Ocean/Sea Water WI = Wipe O = Oil
A) Tran	Buker	1	021	thee	A = Air
		01/2/2/10	Number of preserved bottles	Met Add	
No. Field ID / Point of Collection			and the property of the proper	H	
57	Sample Depth	Date Time Matrix bottles HC Na OH /Zr	Acetate HNO3 H2SO4 NaOH NaHSO4 MEOH NONE	TP	п 1
200	Sortice	1 5 956 0/1		*	Too Continents
2 552	Swine		× .		
3 557	6"	359	*	× ×	
4 834	6"	101	*	メメ	
5 782	6"	707	*	<i>x x</i>	
6 556	Surface	404	*	X	
7 50	6"	* 835	*	×	
00					
The state of the s	· ·				
10					
Turnaround Time (Business days)	ays)	Data Deliverable Information	rmation	Notes:	
Same Day TAT	5 Day TAT	Level II Std QC	Level IV (Full Data Pkg /raw data)		
Next Day EMERGENCY	7 Day TAT	Level III Std QC+ Forms	TRRP Level IV	- - -	Temp: 4 IR ID:R-8
2 Day EMERGENCY	Contract TAT	Level 3 (CLP Forms)	UST / RG -411	0	CF:(0-6: -0.2°C)
3 Day EMERGENCY	Std tvm	Level II Report with TRRP checklist	checklist		(6-23: +0.2°C)
TAT Starts Day received by Lab, if received by 5:00 pm	Lab, if received by 5:00 pm			FED-E)	Corrected Lemp. 2.0
Relinquished by Sampler:	Date Time:	Date, Time: Recaived By: Relinquished By: Relinquished By:	GE POSSESSION, INCLUDING COURIER DI	Time.	
Melinquished by:	2√0/16 Date Time:	1919	Relinquished By:	Date Time: \$\circ \text{R}\$ 2\frac{1}{1}\left\left\left\left\left\left\left\left	Réceived By:
Relinquished by:	Date Time:	Received By:	4 Custody Seal #	Preserved where applicable	On Ica. Cooler Term Thomas Cont.

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 Vramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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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: Report Date: 27-AUG-18
Work Order Number(s): 596449
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

	Lab Id:	596449-0	001	596449-0	002	596449-0	003	596449-	004	596449-	005	596449-	006
	Field Id:	BH01		BH02		BH03		BH04		BH0:		BH0	
Analysis Requested							'						,
	Depth:	14- ft		5.5- ft		4- ft		9.5- f		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										
	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										
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										
	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										
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										
	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										
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

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

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Jessica Kramer



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

Lab Id:	596449-007					
Field Id:	BH07					
Depth:	12- ft					
Matrix:	SOIL					
Sampled:	Aug-17-18 16:10					
Extracted:	Aug-25-18 10:30					
Analyzed:	Aug-26-18 12:52					
Units/RL:	mg/kg RL					
	< 0.00200 0.00200					
	<0.00200 0.00200					
	<0.00200 0.00200					
	<0.00401 0.00401					
	<0.00200 0.00200					
	<0.00200 0.00200					
	<0.00200 0.00200					
Extracted:	Aug-21-18 17:30					
Analyzed:	Aug-21-18 22:51					
Units/RL:	mg/kg RL					
	2550 24.9					
Extracted:	Aug-21-18 16:00					
Analyzed:	Aug-22-18 01:50					
Units/RL:	mg/kg RL					
	<14.9 14.9					
	<14.9 14.9					
	<14.9 14.9					
	<14.9 14.9					
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Units/RL:	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00201 0.00200 <0.00202 0.00200 <0.00203 0.00200 <0.00204 0.00200 <0.00205 0.00200 <0.00200 0.00200 <0.00201 0.00200 <0.00202 0.00200 <0.00203 0.00200 <0.00204 0.00200 <0.00205 0.00200 <0.00206 0.00200 <0.00207 0.00200 <0.00208 RL <0.00209 0.00200 <0.00200 0.00200 <0.0	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Mug-26-18 12:52 Units/RL: mg/kg RL <0.00200 0.00200 <0.00200 0.00200 <0.00401 0.00401 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 Extracted: Aug-21-18 17:30 Analyzed: Mug-21-18 22:51 Units/RL: mg/kg RL 2550 24.9 Extracted: Aug-21-18 16:00 Analyzed: Aug-22-18 01:50 Units/RL: mg/kg RL <14.9 14.9 <14.9 14.9 <14.9 14.9 <14.9 14.9	Field Id: BH07 Depth: 12- ft Matrix: Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Analyzed: Aug-26-18 12:52 Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200

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

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Jessica Married



BH01

SCM

Analytical Method: Inorganic Anions by EPA 300

Certificate of Analytical Results 596449



LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: Soil

Lab Sample Id: 596449-001 Date Collected: 08.17.18 10.15

Sample Depth: 14 ft

Date Received:08.21.18 10.35

Prep Method: E300P

% Moisture:

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

Matrix:

Seq Number: 3060822

Tech:

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

Analytical Method: TPH by SW8015 Mod

ARM Tech:

Analyst: **ARM** Date Prep: 08.21.18 16.00 Basis:

% Moisture:

Wet Weight

Prep Method: TX1005P

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		





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

Wet Weight

Prep Method: SW5030B

% Moisture:

Tech: ALJ Analyst: ALJ Date Prep: 08.25.18 10.30 Basis:

Seq Number: 3061313

Analytical Method: BTEX by EPA 8021B

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		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: BH02

Lab Sample Id: 596449-002

Matrix: Soil

Date Received:08.21.18 10.35

Date Collected: 08.17.18 11.30

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech: SCM

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

ARM

Analyst: ARM

Tech:

Date Prep: 08.21.18 16.00

% Moisture:

Basis:

Prep Method: TX1005P

Wet Weight

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		





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

ALJ

Prep Method: SW5030B

70-130

% Moisture:

Tech: ALJ

Analyst:

Date Prep: 08.25.18 10.30

Wet Weight Basis:

08.26.18 10.25

Seq Number: 3061313

1,4-Difluorobenzene

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	8	

105

540-36-3





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Soil

Sample Id: BH03

Matrix:

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:
Analyst:

ARM ARM % Moisture:

Date Prep: 08.21.18 16.00

Basis: Wet Weight

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		



BH03

Certificate of Analytical Results 596449



LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Matrix: Soil Date Received:08.21.18 10.35 Sample Depth:4 ft

Lab Sample Id: 596449-003 Date Collected: 08.17.18 11.45

Wet Weight

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

Tech: ALJ % Moisture: Analyst: ALJ Date Prep: 08.25.18 10.30 Basis:

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		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH04** Matrix: Soil

Date Received:08.21.18 10.35

Date Collected: 08.17.18 12.15 Sample Depth: 9.5 ft

Prep Method: E300P

% Moisture:

Basis:

Wet Weight

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Lab Sample Id: 596449-004

Analyst:

SCM

Date Prep:

08.21.18 17.30

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

ARMTech:

Analyst: ARM

Date Prep:

08.21.18 16.00

% Moisture:

Basis: Wet Weight

Prep Method: TX1005P

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		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH04** Matrix:

Soil Date Received:08.21.18 10.35 Sample Depth: 9.5 ft

Lab Sample Id: 596449-004 Date Collected: 08.17.18 12.15

Prep Method: SW5030B

Tech: ALJ % Moisture:

Basis:

Date Prep: 08.25.18 10.30 Wet Weight

Seq Number: 3061313

Analyst:

Analytical Method: BTEX by EPA 8021B

ALJ

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		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Soil

Sample Id: BH05 Matrix:

Lab Sample Id: 596449-005 Date Collected: 08.17.18 13.50

Sample Depth:6 ft

Date Received:08.21.18 10.35

Sample Depui. o it

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: SCM

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

% Moisture:

Tech: Analyst: ARM ARM

Date Prep: 08.21.18 16.00

Basis: Wet Weight

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		



BH05

ALJ

Certificate of Analytical Results 596449



LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Soil

08.25.18 10.30

Date Collected: 08.17.18 13.50 Sample Depth:6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Date Received:08.21.18 10.35

% Moisture:

Tech: ALJ

Matrix:

Date Prep:

Wet Weight Basis:

Seq Number: 3061313

Lab Sample Id: 596449-005

Sample Id:

Analyst:

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		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: BH06

Analytical Method: Inorganic Anions by EPA 300

Lab Sample Id: 596449-006

Matrix: Soil

Date Received:08.21.18 10.35

Date Collected: 08.17.18 15.00

Sample Depth:9 ft

Prep Method: E300P

% Moisture:

Tech: SCM

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

Tech: ARM

Analyst: ARM

Date Prep: 08.21.18 16.00

% Moisture:

Basis:

Prep Method: TX1005P

Wet Weight

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		



BH06

Certificate of Analytical Results 596449



LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Soil

Lab Sample Id: 596449-006 Date Collected: 08.17.18 15.00 Date Received:08.21.18 10.35

Wet Weight

Sample Depth:9 ft

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

Matrix:

% Moisture:

Tech: ALJ Analyst: ALJ Date Prep: 08.25.18 10.30 Basis:

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		





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

% Moisture:

Tech: Analyst: ARM ARM

Date Prep: 08.21.18 16.00

Basis:

Wet Weight

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		



BH07

ALJ

Certificate of Analytical Results 596449



LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Soil

08.25.18 10.30

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

Matrix:

Date Prep:

Prep Method: SW5030B

Tech: ALJ % Moisture:

> Wet Weight Basis:

Seq Number: 3061313

Sample Id:

Analyst:

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



Page 111 of 240

- 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.

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

^{**} Surrogate recovered outside laboratory control limit.

RPD

Units



OC Summary 596449

LT Environmental, Inc.

PLU Deleware C SWD

Analytical Method: Inorganic Anions by EPA 300

MB

Prep Method: E300P Seq Number: 3060822 Matrix: Solid Date Prep: 08.21.18

LCS

LCS Sample Id: 7660857-1-BKS LCSD Sample Id: 7660857-1-BSD MB Sample Id: 7660857-1-BLK

%RP LCS Spike Limits **Analysis** LCSD LCSD Flag **Parameter** Result Amount Result %Rec D Limit Date Result %Rec 20 08.21.18 20:35 Chloride < 5.00 250 250 100 249 100 90-110 0 mg/kg

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

RPD Spike MS MS %RP Units **Analysis Parent MSD MSD** Limits Flag **Parameter** Result Amount Result %Rec %Rec D Limit Date Result 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 3060822 08.21.18 Seq Number: Matrix: Soil Date Prep:

Parent Sample Id: 596449-002 MS Sample Id: 596449-002 S MSD Sample Id: 596449-002 SD

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

TPH by SW8015 Mod **Analytical Method:**

TX1005P Prep Method: 3060852 Seq Number: Matrix: Solid Date Prep: 08.21.18

7660865-1-BLK LCS Sample Id: 7660865-1-BKS LCSD Sample Id: 7660865-1-BSD MB Sample Id:

RPD LCS LCSD %RP MB Spike LCS Limits Units **Analysis** LCSD Flag **Parameter** Amount Result D Limit Date Result %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 08.21.18 19:38 1000 984 70-135 2 20 <15.0 98 1000 100 mg/kg 08.21.18 19:38 989 99 70-135 20 Diesel Range Organics (DRO) 1000 1000 1 <15.0 100 mg/kg

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

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

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

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

LCS = Laboratory Control Sample

A = Parent Result

= MS/LCS Result

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

Flag



OC Summary 596449

LT Environmental, Inc.

PLU Deleware C SWD

MCD

MCD

I imite

TPH by SW8015 Mod **Analytical Method:**

Seq Number: 3060852 Matrix: Soil

Parent

MS Sample Id: 596317-009 S Parent Sample Id: 596317-009

Sniko

Prep Method: TX1005P

Date Prep: 08.21.18 MSD Sample Id: 596317-009 SD

%RP RPD Unite Analysis Flag

Parameter	Result	Amount	Result	%Rec	Result	%Rec	Limes	D	Limit	01110	Date	ŀ
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	

MS

MS

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

LCS Sample Id: 7661181-1-BKS LCSD Sample Id: 7661181-1-BSD MB Sample Id: 7661181-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date]
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	
Surrogata	MB	MB	L	CS I	CS	LCSE	LCSI) Li	mits	Units	Analysis	

Surrogate	%Rec	Flag	%Rec	Flag	%Rec	Flag		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: Seq Number: 3061313 Matrix: Soil Date Prep: 08.25.18 MS Sample Id: 596319-008 S MSD Sample Id: 596319-008 SD Parent Sample Id: 596319-008

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

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

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

LCS = Laboratory Control Sample

A = Parent Result = MS/LCS Result

E = MSD/LCSD Result

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

SW5030B

LABURATORIES
Setting the Standard since 1990
Stafford, Texas (281-240-4200)

CHAIN OF C STOD

age or

– Phoenix, Arizona (480-385-0900)

San Antonio, Texas (210-509-3334)

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\$5 per samp	Thermo. Corr.			2 2 2 3	1	20/00																Field Comments	X - All	WW= Waste Water	WI = Wipe	SL = Sludge OW =Ocean/	SW = Surface water	GW =Ground Water DW = Drinking Wate P = Product	W = Water S = Soil/Sed/Solid		Matrix Codes	त्	,)
ponsibility for a	rr. Factor	103	N/	2	188	000																cs.		te Water		SL = Sludge OW =Ocean/Sea Water	ice water	GW =Ground Water DW = Drinking Water P = Product	d/Solid		odes		



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

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

Work Order #: 596449

Temperature Measuring device used: R8

Sample Receipt Cl	hecklist	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	

#10 Water VOC samples have zero hea	iuspace:	N/A	
* Must be completed for after-hours de	elivery of samples prior to placi	ng in the refrigerator	
Checklist completed by:	Brigana Teel	Date: <u>08/21/2018</u>	
Checklist reviewed by:	Jessica Vramer Jessica Kramer	Date: <u>08/22/2018</u>	

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 Vermer

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 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: Report Date: 10-SEP-18
Work Order Number(s): 596788 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

	1						1			I			
	Lab Id:	596788-	001	596788-0	002	596788-0	003	596788-	004	596788-	005	596788-0	006
Analysis Requested	Field Id:	BH14	1	BH15		BH16		SS12		SS13		SS14	
Thutysis Requesieu	Depth:	3- ft		2- ft		2- ft		6- In	<0.00199	6- In			
	Matrix:	SOIL		SOIL	,	SOIL		SOIL		SOIL	.	SOIL	_
	Sampled:	Aug-21-18	Aug-21-18 09:20		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	Aug-28-18 17:43		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

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

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

Jessica Kramer



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

	Lab Id:	596788-0	007	596788-0	800			
Analysis Requested	Field Id:	SS15		SS16				
Anaiysis Kequesieu	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			

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

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

Jessica Kramer

Jessica Kramer Project Assistant





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil Sample Id: **BH14** Matrix:

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:

SCM Analyst:

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

ARM

% Moisture:

ARM Analyst:

Tech:

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

08.28.18 08.00

Basis:

Wet Weight

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

Date Prep:

Tech: ALJ % Moisture:

Seq Number: 3061437

Analyst:

ALJ

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		





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

% Moisture: Basis:

Tech: SCM

Analyst:

Date Prep: 08.23.18 16.45

Wet Weight

Seq Number: 3061062

SCM

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

% Moisture:

Tech:
Analyst:

ARM ARM

Date Prep: 08.24.18 07.00

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: Matrix: Soil **BH15**

> Date Collected: 08.21.18 09.45 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Date Received:08.23.18 11.00

Tech: ALJ % Moisture:

ALJ Analyst: 08.28.18 08.00 Basis: Date Prep:

Wet Weight

Seq Number: 3061437

Lab Sample Id: 596788-002

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

08.23.18 16.45

Sample Id: **BH16** Matrix:

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:

SCM Analyst:

Basis:

Wet Weight

Seq Number: 3061062

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

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM ARM

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: Matrix: Soil **BH16**

> Date Collected: 08.21.18 11.30 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

ALJ

% Moisture:

Tech: ALJ

Analyst:

08.29.18 08.00 Date Prep:

Basis: Wet Weight

Date Received:08.23.18 11.00

Seq Number: 3061634

Lab Sample Id: 596788-003

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil Sample Id: **SS12** Matrix:

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:

SCM Analyst:

08.23.18 16.45 Date Prep:

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

ARM

% Moisture:

Tech: ARM Analyst:

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Date Received:08.23.18 11.00

Matrix: Date Collected: 08.21.18 11.10

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

SS12

Prep Method: SW5030B

Tech: ALJ % Moisture:

ALJ Analyst:

Sample Id:

08.29.18 08.00 Date Prep:

Basis: Wet Weight

Seq Number: 3061634

Lab Sample Id: 596788-004

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil Sample Id: **SS13** Matrix:

Date Received:08.23.18 11.00

Date Collected: 08.21.18 11.15

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech: SCM

Analyst:

08.23.18 16.45 Date Prep:

Basis: Wet Weight

Seq Number: 3061062

SCM

Lab Sample Id: 596788-005

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

% Moisture:

ARMTech: ARM

Analyst:

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

08.29.18 08.00

Sample Id: Soil **SS13** Matrix:

> Date Collected: 08.21.18 11.15 Sample Depth: 6 In

Lab Sample Id: 596788-005

Prep Method: SW5030B

08.29.18 11.58

Date Received:08.23.18 11.00

Wet Weight

% Moisture:

Basis:

70-130

Tech: ALJ ALJ

540-36-3

Date Prep:

Seq Number: 3061634

1,4-Difluorobenzene

Analyst:

Analytical Method: BTEX by EPA 8021B

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		

95





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil Sample Id: **SS14** Matrix:

Date Received:08.23.18 11.00

Date Collected: 08.21.18 11.20

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

SCM

% Moisture:

Tech: SCM Analyst:

Date Prep: 08.23.18 16.45 Basis:

Wet Weight

Seq Number: 3061062

Lab Sample Id: 596788-006

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

% Moisture:

Tech: Analyst: ARMARM

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596788-006 Date Collected: 08.21.18 11.20

Matrix:

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

SS14

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Sample Id:

Date Prep: 08.29.18 08.00

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil Sample Id: **SS15** Matrix:

Date Received:08.23.18 11.00

Date Collected: 08.21.18 11.25

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

SCM

Lab Sample Id: 596788-007

% Moisture:

Tech: SCM Analyst:

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

% Moisture:

Tech: Analyst: ARMARM

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

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

SS15

Prep Method: SW5030B

Tech: ALJ % Moisture:

ALJ

Sample Id:

Analyst:

08.25.18 10.30 Date Prep:

Basis: Wet Weight

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		





5

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: SS16 Matrix:

16887-00-6

Matrix: Soil

Date Received:08.23.18 11.00

Date Collected: 08.21.18 11.30

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

08.23.18 22.26

Tech: SCM

Analyst:

Chloride

Lab Sample Id: 596788-008

SCM

Date Prep: 08.23.18 16.45

% Moisture:

Basis: Wet Weight

Seq Number: 3061062

Parameter Cas Number Result RL Units Analysis Date Flag Dil

491

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

mg/kg

Tech:
Analyst:

ARM ARM

Date Prep: 08.24.18 07.00

24.8

Basis:

Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Matrix:

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

SS16

Prep Method: SW5030B

Tech: ALJ % Moisture:

ALJ Analyst:

Sample Id:

08.29.18 08.00 Date Prep:

Basis: Wet Weight

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.

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

^{**} Surrogate recovered outside laboratory control limit.



QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300

3061062

7661018-1-BLK

Matrix: Solid

98

Prep Method: Date Prep: E300P

Seq Number: MB Sample Id:

LCS Sample Id:

08.23.18

7661018-1-BKS

246

LCSD Sample Id: 7661018-1-BSD %RPD RPD Limit Units

Analysis

Parameter

Chloride

MR Spike Result Amount

< 5.00

LCS LCS Result %Rec

246

LCSD LCSD %Rec Result

Limits 98 90-110

0 20

Date 08.23.18 19:52

Flag

Analytical Method: Inorganic Anions by EPA 300

Result

317

3061062

Matrix: Soil

Prep Method:

E300P

mg/kg

Seq Number:

Date Prep:

08.23.18

Parent Sample Id:

596788-001

MS Sample Id: 596788-001 S

MSD Sample Id:

596788-001 SD

Parameter

Parent

MS Result

MS

MSD MSD

551

266

Limits

%RPD RPD Limit Units

Analysis Flag

Chloride

Spike Amount 249

250

%Rec 553 95

Result

%Rec 94 90-110

0 20 mg/kg

Date 08.23.18 21:25

Analytical Method: Inorganic Anions by EPA 300

3061062

Matrix: Soil

256

103

Prep Method: Date Prep: E300P

08.23.18

Parent Sample Id:

Seq Number:

596792-001

MS Sample Id:

Amount

596792-001 S

MSD Sample Id: 596792-001 SD

08.23.18 20:09

Parameter

Parent Spike Result

< 5.12

MB

105

MS MS Result %Rec

263

MSD Result

MSD %Rec

104

Limits

%RPD RPD Limit Units

mg/kg

Analysis Flag Date

Chloride

Analytical Method: TPH by SW8015 Mod

3061228 7661126-1-BLK

Limits

90-110

Prep Method:

%RPD RPD Limit Units

20

TX1005P

Seq Number: MB Sample Id:

Matrix: Solid LCS Sample Id:

LCS

114

100

92

7661126-1-BKS

Date Prep: LCSD Sample Id:

Limits

70-135

70-135

08.24.18

Parameter Gasoline Range Hydrocarbons (GRO)

Diesel Range Organics (DRO)

Result Amount <15.0 1000 1000 <15.0

Spike

Result %Rec 923 958

LCS

LCSD Result 909

%Rec 70-135 91

2

mg/kg

Units

Date 08.24.18 08:51

7661126-1-BSD

Flag

Surrogate

o-Terphenyl

1-Chlorooctane

MB %Rec 98

LCS MB Flag %Rec 96 944 LCS

Flag

94 LCSD

LCSD

%Rec

109

102

70-135 LCSD

Flag

1

20 20

08.24.18 08:51 mg/kg

Analysis

Analysis

Date 08.24.18 08:51

% 08.24.18 08:51 %

MS/MSD Percent Recovery Relative Percent Difference

LCS/LCSD Recovery

Log Difference

[D] = 100*(C-A) / B[D] = 100 * (C) / [B]

RPD = 200* | (C-E) / (C+E) |

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

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

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



Seq Number:

QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod

3061228 Matrix: Soil

MS Sample Id: 596788-002 S

Prep Method: TX1005P

Date Prep: 08.24.18

Parent Sample Id: 596788-002

MSD Sample Id: 596788-002 SD %RPD RPD Limit Units

Parameter	Result	Amount	Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	KPD LIM	it 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

3061313

Prep Method:

SW5030B

Seq Number: MB Sample Id:

7661181-1-BLK

LCS Sample Id: 7661181-1-BKS

Matrix: Solid

Date Prep: 08.25.18 LCSD Sample Id: 7661181-1-BSD

Flag

Flag

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

3061437

Matrix: Solid

Prep Method: Date Prep:

SW5030B 08.28.18

Seq Number: LCS Sample Id: 7661266-1-BKS LCSD Sample Id: 7661266-1-BSD MB Sample Id: 7661266-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date
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 Relative Percent Difference LCS/LCSD Recovery Log Difference

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

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

LCS = Laboratory Control Sample

A = Parent Result

C = MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

08.29.18 08:15

08.29.18 08:15



1,4-Difluorobenzene

4-Bromofluorobenzene

QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

95

92

70-130

70-130

%

Analytical Method:BTEX by EPA 8021BPrep Method:SW5030BSeq Number:3061634Matrix:SolidDate 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	%RPI	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 Flag	LCSI %Re			Limits	Units	Analysis Date	

Analytical Method:BTEX by EPA 8021BPrep Method:SW5030BSeq Number:3061313Matrix: SoilDate Prep:08.25.18

97

96

94

95

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 Lim	it 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 8021BPrep Method:SW 5030BSeq Number:3061437Matrix: SoilDate 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 Limi	t 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 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

08.29.18 08:56

08.29.18 08:56



Seq Number:

1,4-Difluorobenzene

4-Bromofluorobenzene

QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

90

122

Analytical Method: BTEX by EPA 8021B

3061634 Matrix: Soil

89

128

Prep Method: SW5030B Date Prep: 08.29.18

MSD Sample Id: 596847-001 SD

%

%

70-130

70-130

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 Limi	t 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				IS Rec	MS Flag	MSD %Re		_	Limits	Units	Analysis Date			

Setting the Standard since 1990 Stafford, Texas (281-240-4200)

San Antonio, Texas (210-509-3334)

losses of expenses incurred by the Client it such bandvaluntaria and subcontractors, it assigns standard terms losses or expenses incurred by the Client it such bases 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 will be enforced unless previously negotiated under a fully executed client contract.	Relinquished by:	3	Relinquished by		Relinquished by Sampler:	At Starts Day received by Lab, if received by 5:00 pm	3 Day EMERGENCY		2 Day EMERGENCY	Next Day EMERGENCY	Same Day TAT	Turnaround Time (Business days)	10 National Conference of the	9	V 55 0 V	7 558A	6 55 MA	5 556A	4 SSSA	3 BH 16	2 RH 15	1 81114		No Field ID / Point of Collection	Samplers's Name Joseph S. Hernandez	Adrian Baker	Abaker@itenv.com	rmail:	3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705	Company Address:	Company Name / Branch: LT Environmental, Inc Permian Office	Client / Reporting Information			Dallas Texas (214-902-0300)
te or samples constitutes a ue to circumstances beyond secuted client contract.	Date		Date	<u> </u>	Date	SAMPLE CLISTODY WILST BE			Contract TAT]7 Day ТАТ	5 Day TAT				6			6				3					(432) 704-5178	Phone No:	Midland, TX 79705						
the control of Xenco. A	Date Time: R			22 27/2	Fime: R	R				П				3	6" 4	00	6"		6"	2		3' B/21/18 (Sample Depth Date	Collection		PO Number:		invoice To: XTO Energy - Kyle Littrell		Project Location:	Project Name/Number:				Midland, Tex
n client company to xenco, its affiliates and subtraininum charge of \$75 will be applied to each p	Received By:		Received By:		Received Ry: Received Ry:		TRRP Checklist		Level 3 (CLP Forms)	Level III Std QC+ Forms	Level II Std QC	Data Deliverable Information		8121/18	130 5	125 5	130 5	115 5 1	110 5 1	130 5 /		0220 5 1	Matrix bottles HCI NaOH/Zr Acetate	Number of				yle Littrell	Carls bad NM		DE DELANGE C S	Project Information		www.xenco.com	Midiand, Texas (432-704-5251)
contractors. It assigns standard terms and coroject. Xenco's liability will be limited to the	Custody Seal # Pr		Relingueshed By:	Semiduraned by:	Balling is had Big				UST / RG -411	TRRP Level IV	Level IV (Full Data Pkg /raw data)			SAN TRACTICATION OF THE PROPERTY OF THE PROPER	X	××	, X X	x ; X X	X) X	×	×	× X	H2SO4 NaOH NaHSO4 MEOH NONE	preserved	<u>I</u>	=P1	4		302	20	25			Xenco Quote #	
onditions of service. Xenco will cost of samples. Any samples	Preserved where applicable			S/27 /5.30								Notes:		marger and control of the control of	X	X X	X	X	X	X	X	X	TP.	Holor	<u></u>	de de			301				Analytical Information	ote#	
and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any to the cost of samples. Any samples received by Xenco but not analyzed will be involced at \$5 per sample. These terms	le On Ice Cooler Temp. Thermo. Corr. Factor	*	Received By.	Received By / MAN STAIR		FED-EX / UPS: Tracking # 十十3八41374162		***************************************				es:		THE PROPERTY OF THE PROPERTY O									Field Comments	A = Air	WW Waste Water	WI = Wipe	OW=Ocean/Sea Water	SW = Surface water	DW = Drinking Water	GW =Ground Water	W = Water		ation Matrix Codes	Xenco Job #	なころで



After printing this label:

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

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XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

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

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

Work Order #: 596788

Temperature Measuring device used: R8

	Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?		2.6
#2 *Shipping container in good condition	.2	Yes
#3 *Samples received on ice?	1:	Yes
#4 *Custody Seals intact on shipping co	otainer/ cooler?	N/A
#5 Custody Seals intact on sample bottle		N/A
#6*Custody Seals Signed and dated?	53:	N/A
#7 *Chain of Custody present?		Yes
#8 Any missing/extra samples?		No
#9 Chain of Custody signed when reling	uished/received?	Yes
#10 Chain of Custody agrees with samp		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 indicat	ed test(s)?	Yes
#16 All samples received within hold tim		Yes
#17 Subcontract of sample(s)?	·	N/A
#18 Water VOC samples have zero hea	dspace?	N/A
* Must be completed for after-hours de Analyst:	elivery of samples prior to placing in PH Device/Lot#:	the refrigerator
Checklist completed by: Checklist reviewed by:	Brianna Teel Jessiga Vramer	Date: 08/23/2018

Jessica Kramer

Date: 08/23/2018

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 Vermer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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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: Report Date: 10-SEP-18
Work Order Number(s): 596789
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

	Lab Id:	596789-0			002	596789-0	03	596789-	004		
Analysis Requested	Field Id:	BH08				BH10		SS08			
Analysis Requesieu	Depth:	2- ft			2- ft		2- ft		t		
	Matrix:	SOIL	SOIL			SOIL		SOIL			
	Sampled:	Aug-20-18	12:00	Aug-20-18	13:25	Aug-20-18 1	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 1	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 1	13:15	Aug-28-18	13:15		
	Analyzed:	Aug-28-18	14:41	Aug-28-18	14:47	Aug-28-18 1	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 1	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		

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

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

Jessica Kramer



BH08

SCM

SCM

Certificate of Analytical Results 596789



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

08.28.18 13.15

Date Received:08.23.18 11.00 Matrix: Soil Sample Depth: 2 ft

Lab Sample Id: 596789-001 Date Collected: 08.20.18 12.00

Basis:

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Wet Weight

% Moisture:

Date Prep:

Seq Number: 3061510

Sample Id:

Tech:

Analyst:

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

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

ARM Tech: ARM

Analyst:

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

08.28.18 08.00

Sample Id: BH08 Matrix: Soil Date Received:08.23.18 11.00

Date Collected: 08.20.18 12.00 Sample Depth: 2 ft

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

0/ 3.5 . .

Tech: ALJ % Moisture:

Analyst: ALJ Date Prep:

Basis: Wet Weight

Seq Number: 3061437

Lab Sample Id: 596789-001

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		



BH09

Certificate of Analytical Results 596789



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil Date Received:08.23.18 11.00 Matrix:

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:

SCM Analyst:

Sample Id:

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

% Moisture:

Tech: Analyst: ARM ARM

08.24.18 07.00 Date Prep:

Basis:

Wet Weight

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		





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

Prep Method: SW5030B

Tech: ALJ % Moisture: ALJ

Date Prep: 08.29.18 08.00 Basis: Wet Weight

Seq Number: 3061634

Analyst:

Analytical Method: BTEX by EPA 8021B

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		



BH10

Certificate of Analytical Results 596789



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Date Received:08.23.18 11.00

Date Collected: 08.20.18 13.40

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

SCM % N

Matrix:

% Moisture:

Analyst: SCM

Sample Id:

Tech:

Date Prep: 08.28.18 13.15

Basis: Wet Weight

Seq Number: 3061510

Lab Sample Id: 596789-003

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

% Moisture:

Tech:
Analyst:

ARM ARM

Date Prep: 08.24.18 07.00

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: Matrix: Soil **BH10**

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

% Moisture:

Tech: ALJ 08.29.18 08.00

ALJ Analyst: Date Prep: Seq Number: 3061634

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

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

SS08

% Moisture:

SCM Analyst:

Sample Id:

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

Matrix:

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARMARM

08.24.18 07.00 Date Prep:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: SS08 Matrix: Soil Date Received:08.23.18 11.00

Date Collected: 08.20.18 15.25 Sample Depth: 0.5 ft

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

% Moisture:

Analyst: ALJ Date Prep: 08.29.18 08.00 Basis: Wet Weight

Seq Number: 3061634

Tech:

Lab Sample Id: 596789-004

ALJ

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.

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

^{**} Surrogate recovered outside laboratory control limit.

E300P



QC Summary 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300

Prep Method: Seq Number: 3061510 Matrix: Solid Date Prep: 08.28.18

LCS Sample Id: LCSD Sample Id: 7661279-1-BSD 7661279-1-BKS MB Sample Id: 7661279-1-BLK

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

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

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

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

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 3061510 Matrix: Soil Seq Number: Date Prep: 08.28.18

MS Sample Id: 596910-005 S MSD Sample Id: 596910-005 SD Parent Sample Id: 596910-005

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

Analytical Method: TPH by SW8015 Mod TX1005P Prep Method:

Seq Number: 3061228 Matrix: Solid 08.24.18 Date Prep:

MB Sample Id: 7661126-1-BKS LCSD Sample Id: 7661126-1-BSD LCS Sample Id: 7661126-1-BLK

LCS %RPD RPD Limit Units MB Spike LCS LCSD Limits Analysis LCSD Flag **Parameter** Result %Rec Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 923 92 909 70-135 2 20 08.24.18 08:51 <15.0 1000 91 mg/kg 08.24.18 08:51 958 96 70-135 1 20 Diesel Range Organics (DRO) 1000 944 94 <15.0 mg/kg

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

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

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

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

LCS = Laboratory Control Sample

A = Parent Result = MS/LCS Result

= MSD/LCSD Result

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

Flag

Flag



QC Summary 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod

3061228 Matrix: Soil Prep Method: Date Prep: 08.24.18

Seq Number: MS Sample Id: 596788-002 S Parent Sample Id: 596788-002

MSD Sample Id: 596788-002 SD

TX1005P

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	it 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

Seq Number: 3061437

SW5030B Prep Method: Date Prep:

08.28.18

MB Sample Id:

7661266-1-BLK

Matrix: Solid 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 Lin	nit Units	Analysis Date
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
a	MB	MB	L	CS I	.cs	LCSI	D LCS	D Li	imits	Units	Analysis

Surrogate	%Rec	Flag	%Rec	Flag	%Rec	Flag	23111145		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

3061634

Matrix: Solid

Prep Method: Date Prep:

SW5030B 08.29.18

Seq Number: LCS Sample Id: 7661378-1-BKS LCSD Sample Id: 7661378-1-BSD MB Sample Id: 7661378-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
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 Relative Percent Difference LCS/LCSD Recovery Log Difference

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

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

LCS = Laboratory Control Sample

A = Parent Result

C = MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec



QC Summary 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: BTEX by EPA 8021B

SW5030B Prep Method: Matrix: Soil Date Prep: 08.28.18

Seq Number: 3061437 MS Sample Id: 596789-001 S MSD Sample Id: 596789-001 SD Parent Sample Id: 596789-001

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t 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

SW5030B Prep Method: Seq Number: 3061634 Matrix: Soil Date Prep: 08.29.18 MS Sample Id: 596847-001 S MSD Sample Id: 596847-001 SD 596847-001 Parent Sample Id:

Spike MS %RPD RPD Limit Units MS MSD Limits Analysis **Parent MSD Parameter** Flag Result Amount Result %Rec Date Result %Rec 08.29.18 08:56 70-130 22 Benzene < 0.00201 0.100 0.027828 0.0346 34 35 mg/kg X Toluene 0.0129 0.100 0.0164 4 0.0608 47 70-130 115 35 08.29.18 08:56 XF mg/kg 08.29.18 08:56 Ethylbenzene 0.00535 0.100 0.0118 6 0.0186 13 70-130 45 35 XF mg/kg 08.29.18 08:56 m,p-Xylenes 0.201 0.0299 3 0.0495 70-130 49 35 0.0247 12 mg/kg XF 70-130 08.29.18 08:56 o-Xylene 0.00639 0.100 0.0127 0.0133 7 5 35 mg/kg X

Surrogate	MS MS %Rec Flag	111010	SD Limits lag	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

Setting the Standard since 1990 Stafford, Texas (281-240-4200)

CHAIN OF CUSTODY

San Antonio, Texas (210-509-3334)

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Dailas Texas (214-902-0300)	Midland, Te	Midland, Texas (432-704-5251)				1	()
		www.xenco.com	(3	Xenco Quote #	Xenco Job#		
					Analytical Information	Matri	Matrix Codes
Client / Reporting Information		Project Information					
Company Name / Branch: LT Environmental, Inc Permian Office	Project Name/Number:	Solawine O	SWD			W = Water	later
Company Address:	Project Location:			020		GW =C	GW = Ground Water
3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705		Carlstand NM				P = Product	P = Product
mali: Phone No: Phone No: (432) 704-5178	XTO Energy - Kyle Littrell	Kyle Littrell		A A		SW = Surfac SL = Sludge	SW = Surface water SL = Sludge
Project Confact: Adrian Baker	PO Number:			Eŧ		Wi = Wipe	WI = Wipe
Samplers's Name Joseph S. Hernandez						WW C	WW= Waste Water
	Collection		lumber of preserved bottles	TE, PH blo		A = Air	=
No. Field ID / Point of Collection San	Sample Date	Time Matrix bottles	NAOH/Zn Acetate HNO3 H2SO4 NAOH NAHSO4 MEOH	T/		Field Comments	mente
1 8 #08 3	3' Blogle 1	S .		X X X			
2 BHO9			×				
3 B#10 3'		1340 5 1	×	XXX			
4 SSIA 0.	0.5	1525 5 1	×	X X X		c	
Ci							
ō	Q 2	20.18					
7	1						
8							
9							
10							
Turnaround Time (Business days)		Data Deliverable Information	iformation		Notes:		
Same Day TAT S Day TAT		Level II Std QC	Level IV (Full Data Pkg /raw	g /raw data)			
Next Day EMERGENCY 7 Day TAT		Level III Std QC+ Forms	TRRP Level IV				
2 Day EMERGENCY Contract TAT		Level 3 (CLP Forms)	UST / RG -411				
3 Day EMERGENCY		TRRP Checklist					
TAT Starts Day received by Lab, if received by 5:00 pm	T BE DOCUMENTED	D BELOW EACH TIME SAMPLES CHA	CEIVED BY 5:00 pm SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DE	IFR DELIVERY	FED-EX / UPS: Tracking #	king# 7-130 415741	\mathcal{E}_{2}
Relinquished by Sampler:	Date Time: 9:36	Received By:	Relimpuished By:	1/	Date Time: Received	1977, 8123/18	3 1,35
Relingy/shed by: Date	Date Time:	Received By:	Relipquished By:		e Time: Received's		
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved	Preserved where applicable	On Ice Cooler Temp. Thermo.	o. Corr. Factor
valide: Notice. Signature of this document and relinquishment of samples constitues a valid purchase order from client company to Xanco, its affiliates and subcontractors, it assigns standard terms osses 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 will be enforced unless previously repositived under a fully executed client contract	/alid purchase order for the control of Xenco.	rom client company to Xenco, its affiliate A minimum charge of \$75 will be applie	s and subcontractors. It assigns standard d to each project. Xenco's liability will be l	I terms and conditions imited to the cost of s	of service. Xenco will be liable on amples. Any samples received by	and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms	any responsibility for any reample. These terms

. Released to Imaging: 10/18/2022 11:59:20 AM



After printing this label:

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

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XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

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

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

Work Order #: 596789

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 col	ntainer/ cooler?	N/A
#5 Custody Seals intact on sample bottle	es?	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 relinque	uished/ received?	Yes
#10 Chain of Custody agrees with samp	le 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 indicat	ed test(s)?	Yes
#16 All samples received within hold tim	e?	Yes
#17 Subcontract of sample(s)?		N/A
#18 Water VOC samples have zero head	dspace?	N/A
* Must be completed for after-hours de	elivery of samples prior to placing in	the refrigerator
Analyst:	PH Device/Lot#:	
Checklist completed by:	Brianna Teel	Date: 08/23/2018
	1/00,000	

Checklist reviewed by:

Date: 08/23/2018

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 Vermer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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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: Report Date: 10-SEP-18
Work Order Number(s): 596790 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 Page 171 of 240

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

		50.5500.	201	50.5500.				50.5500.		50.5500.	00.5	50.5500 (20.5
	Lab Id:	596790-0)01	596790-0	002	596790-0	03	596790-0	004	596790-0		596790-0)06
Analysis Requested	Field Id:	SS09		SS10		BH11		BH12		SS11		BH 13	3
Thutysis Requesicu	Depth:	0.5- ft	:	0.5- ft	0.5- ft		2- ft		2- ft		t	12- ft	
	Matrix:	SOIL	SOIL			SOIL		SOIL		SOIL		SOIL	,
	Sampled:	Aug-20-18	Aug-20-18 15:30		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	Aug-29-18 08:00		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

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

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

Jessica Weamer

Jessica Kramer Project Assistant



SS09

SCM

Certificate of Analytical Results 596790



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596790-001 Date Collected: 08.20.18 15.30

Matrix:

Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

08.24.18 13.00

Analyst: SCM Date Prep:

Basis: Wet Weight

Seq Number: 3061240

Sample Id:

Tech:

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

% Moisture:

Tech:
Analyst:

ARM ARM

Date Prep: 08.23.18 15.00

Basis: Wet Weight

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		





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

% Moisture:

Analyst: ALJ Date Prep: 08.29.18 08.00 Basis: Wet Weight

Seq Number: 3061634

ALJ

Tech:

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		



SS10

SCM

SCM

Certificate of Analytical Results 596790



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

08.24.18 13.00

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

Wet Weight

Basis:

% Moisture:

Date Prep:

Matrix:

Seq Number: 3061240

Sample Id:

Tech:

Analyst:

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

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech:

Analyst:

ARM ARM

Date Prep: 08.23.18 15.00

Basis: Wet Weight

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		





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

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		



BH11

Certificate of Analytical Results 596790



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

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

Sample Id:

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

Matrix:

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech:
Analyst:

ARM ARM

Date Prep: 08.23.18 15.00

Basis: V

Wet Weight

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		





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

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Date Received:08.23.18 11.00

Date Collected: 08.20.18 15.20

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

SCM

BH12

% Moisture:

Tech: SCM Analyst:

Sample Id:

Date Prep: 08.24.18 13.00 Basis: Wet Weight

Seq Number: 3061240

Lab Sample Id: 596790-004

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

Matrix:

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARMARM

08.23.18 15.00 Date Prep:

Basis: Wet Weight

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		



BH12

ALJ

Certificate of Analytical Results 596790



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

tte Collected: 08.20.18 15.20 Sample Depth: 2 ft

Lab Sample Id: 596790-004 Date Collected: 08.20.18 15.20

1 1 1

Date Received:08.23.18 11.00

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

Matrix:

% Moisture:

Analyst: ALJ Date Prep: 08.29.18 08.00 Basis: Wet Weight

Seq Number: 3061634

Sample Id:

Tech:

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		





1

LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

08.24.18 13.00

Sample Id: **SS11** Matrix: Soil

16887-00-6

Date Received:08.23.18 11.00

Wet Weight

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

08.24.18 15.38

Date Prep:

64.4

% Moisture:

Basis:

mg/kg

Seq Number: 3061240

Tech:

Analyst:

Chloride

Analyst:

SCM

SCM

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

ARM Tech: ARM

08.23.18 15.00 Date Prep:

4.96

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

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

SS11

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Sample Id:

Date Prep: 08.29.18 08.00

Matrix:

Basis: Wet Weight

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		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

08.24.18 13.00

Soil Sample Id: **BH 13** Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596790-006 Date Collected: 08.20.18 16.30 Sample Depth: 12 ft

Basis:

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

SCM % Moisture:

Date Prep:

Wet Weight

Seq Number: 3061240

SCM

Tech:

Analyst:

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

% Moisture:

ARMTech: ARM

Analyst:

08.23.18 15.00 Date Prep:

Basis: Wet Weight

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		





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

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



Page 184 of 240

- 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.

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

^{**} Surrogate recovered outside laboratory control limit.



Seq Number:

QC Summary 596790

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300

3061240 Matrix: Solid

MR

LCS Sample Id: 7661143-1-BKS MB Sample Id: 7661143-1-BLK

E300P Prep Method:

Date Prep: 08.24.18

E300P

Flag

LCSD Sample Id: 7661143-1-BSD

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

08.24.18 14:27 Chloride <4.99 250 242 97 245 98 90-110 20 mg/kg

LCS

Analytical Method: Inorganic Anions by EPA 300

E300P Prep Method: Seq Number: 3061240 Matrix: Soil Date Prep: 08.24.18

LCS

596790-001 SD Parent Sample Id: 596790-001 MS Sample Id: 596790-001 S MSD Sample Id:

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

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: Seq Number: 3061240 Matrix: Soil 08.24.18 Date Prep:

MS Sample Id: 596977-003 S MSD Sample Id: 596977-003 SD Parent Sample Id: 596977-003

Spike MS %RPD RPD Limit Units Parent MS **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result %Rec Amount Result %Rec Chloride 623 251 835 84 833 84 90-110 0 20 08.24.18 16:27 X mg/kg

Analytical Method: TPH by SW8015 Mod

TX1005P Prep Method: Seq Number: 3061132 Matrix: Solid 08.23.18 Date Prep:

MB Sample Id: 7661027-1-BKS LCSD Sample Id: 7661027-1-BSD LCS Sample Id: 7661027-1-BLK

LCS %RPD RPD Limit Units MB Spike LCS LCSD LCSD Limits Analysis **Parameter** Result %Rec Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 967 97 945 70-135 2 20 08.23.18 18:59 <15.0 1000 95 mg/kg 08.23.18 18:59 1000 100 970 70-135 3 20 Diesel Range Organics (DRO) 1000 97 <15.0 mg/kg

LCS LCSD MB MB LCS LCSD Limits Units Analysis **Surrogate** %Rec Flag %Rec Flag %Rec Flag Date 1-Chlorooctane 96 119 116 70-135 % 08.23.18 18:59 08.23.18 18:59 o-Terphenyl 99 99 94 70-135 %

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

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

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

LCS = Laboratory Control Sample

A = Parent Result = MS/LCS Result

= MSD/LCSD Result

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



Seq Number:

Parent Sample Id:

QC Summary 596790

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod

3061132 Matrix: Soil

MS Sample Id: 596598-001 S 596598-001

TX1005P Prep Method:

Date Prep: 08.23.18

MSD Sample Id: 596598-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (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	
Curumo co to			N	1 S	MS	MSI) MS	D 1	Limits	Units	Analysis	

Surrogate %Rec Flag Flag Date %Rec 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

3061634

Matrix: Solid

Prep Method:

SW5030B

Flag

Flag

Date Prep: 08.29.18

Seq Number: LCS Sample Id: 7661378-1-BKS LCSD Sample Id: 7661378-1-BSD 7661378-1-BLK MB Sample Id: %RPD RPD Limit Units LCS LCS MB Spike Limits Analysis **LCSD** LCSD **Parameter** Date Result Amount Result %Rec Result %Rec

0.0998 107 0.0937 08.29.18 08:15 Benzene < 0.00200 0.107 70-130 13 35 mg/kg Toluene < 0.00200 0.0998 0.103 103 0.0902 90 70-130 13 35 mg/kg 08.29.18 08:15 08.29.18 08:15 0.0998 70-130 13 35 Ethylbenzene < 0.00200 0.117 117 0.103 103 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 0.0998 0.103 103 0.0906 91 70-130 13 35 08.29.18 08:15 o-Xylene < 0.00200 mg/kg LCSD MB MB LCS LCS Limits Units

LCSD Analysis **Surrogate** %Rec Flag %Rec Flag Flag Date %Rec 1.4-Difluorobenzene 94 97 95 70-130 % 08.29.18 08:15 08.29.18 08:15 4-Bromofluorobenzene 95 96 92 70-130 %

Analytical Method: BTEX by EPA 8021B

Seq Number: 3061634

Matrix: Soil MS Sample Id: 596847-001 S Prep Method: SW5030B Date Prep:

08.29.18

MSD Sample Id: 596847-001 SD Parent Sample Id: 596847-001 MS %RPD RPD Limit Units Parent Spike MS MSD MSD Limits Analysis **Parameter** Result Amount Result %Rec %Rec Date Result

08.29.18 08:56 28 0.0346 Benzene < 0.00201 0.100 0.027834 70-130 22 35 mg/kg X Toluene 0.0129 0.100 0.0164 4 0.0608 47 70-130 115 35 08.29.18 08:56 XF mg/kg mg/kg 08.29.18 08:56 Ethylbenzene 0.00535 0.100 0.0118 6 0.0186 13 70-130 45 35 XF 08.29.18 08:56 0.0247 0.201 0.0299 3 0.0495 12 70-130 49 35 XF m,p-Xylenes mg/kg 08.29.18 08:56 0.100 0.0127 70-130 o-Xylene 0.00639 6 0.0133 7 5 35 mg/kg X

MSD MS MS **MSD** Limits Units Analysis **Surrogate** %Rec Flag %Rec Flag 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) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

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

LCS = Laboratory Control Sample

A = Parent Result

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

Stafford, Texas (281-240-4200) Setting the Standard since 1990

CHAIN OF CUSTODY

San Antonio, Texas (210-509-3334) Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

Dallas Texas (214-902-0300)		Midland, Texas (432-704-5251)	Xenco Quote #	Note * Xenco Job *		
				Analytical information		
Client / Reporting Information		Project Information				
LT Environmental, Inc Permian Office		Project Name/Number: PLU Do La WING	C SWA			W = Water
Company Address:			0	5		S = Soil/Sed/Soild
3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705	lidland, TX 79705	Carlsbad, NM	03	0 j		DW = Drinking Water
Email:		Invoice To:	86	00		SW = Surface water
.com	(432) 704-5178	series of R solver ministr				SL = Sludge
Project Contact: Adrian Baker		PO Number	- 61	PA e		WI = Wipe
Samplers's Name Joseph S. Hernandez				<i>E J</i> -		0=0i
		Collection				WW= Waste Wate A = Air
No. Field ID / Point of Collection	Sample	## DH/Zn	504 SO4	PH Chlo		
\dashv		Time Matrix bottles	Na Na ME		Fie	Field Comments
1 5047	0,5	Bladie 1530 5 1	× <i>y</i>	X		
2 5534	0.5	1 1535 5 1	× X	X		
3 BH11	يو		× :	X X		
4 BH IA	- وي	1520 5 1	× > X	X		
5 SS4 A	B'2;	\dashv	< <i>j</i>			
6 BH 13	12.		X_{\perp}	_		
7)	8/20/3		71	Market Communication Company	
8	***************************************					
9						
10						
Turnaround Time (Business days)		Data Deliverable Information	ation	Notes:		
Same Day TAI S	S Day TAT	Level II Std QC	Level IV (Full Data Pkg /raw data)			
Next Day EMERGENCY	7 Day TAT	Level III Std QC+ Forms	TRRP Level IV			
2 Day EMERGENCY	Contract TAT	Level 3 (CLP Forms)	UST / RG -411		***************************************	
3 Day EMERGENCY		TRRP Checklist				
TAT Starts Day received by Lab, if received by 5:00 pm	eived by 5:00 pm			FED-EX / UPS: Tracking #	cking # イエペークルス	1227
Relinquished by Sampler:	AMPLE CUSTODY MUST BE DO	SAMPLE CUS IOUY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DI Date Time: Received By:	OSSESSION, INCLUDING COURIER DELIVERY			
Relinguis Med by:		5.36 1 5 1 Mg	2 MARY	S/22 /5:30 Received By:	ed By: MA JM	1/18/23/18
3	Date Hille.	3 Neceived By:	Relinguished By:	Date Time: Received By	ed By/	
S (Volte: Notice: Signature of this document and relinouishment of	Date Time:	Received By:		Preserved where applicable	On Ice Cooler Temp.	Thermo, Corr. Factor
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 invited unless previously negotiated under a fully executed client contract.	to circumstances beyond the contract.	ol of Xenco. A minimum charge of \$75 will be applied to e		conditions of service. Xenco will be liable a cost of samples. Any samples received t	and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms	assume any responsibility for at \$5 per sample. These te



After printing this label:

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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

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

Work Order #: 596790

Temperature Measuring device used: R8

	Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?		2.6
#2 *Shipping container in good condition	1?	Yes
#3 *Samples received on ice?		Yes
#4 *Custody Seals intact on shipping co	ntainer/ cooler?	N/A
#5 Custody Seals intact on sample bottle	es?	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 reling	uished/ received?	Yes
#10 Chain of Custody agrees with samp		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 indicat	ed test(s)?	Yes
#16 All samples received within hold tim	e?	Yes
#17 Subcontract of sample(s)?		N/A
#18 Water VOC samples have zero hear	dspace?	N/A
* Must be completed for after-hours de	elivery of samples prior to placing in	n the refrigerator
Analyst:	PH Device/Lot#:	
Checklist completed by:	Brianna Teel	Date: 08/23/2018
	Na 0 100 0 18	

Jessica Kramer

Checklist reviewed by:

Date: 08/23/2018

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 Vermer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

[atrix	Date Collected	Sample Depth	Lab Sample Id
S	10-24-19 11:00	1 ft	641128-001
S	10-24-19 11:10	2 ft	641128-002
S	10-24-19 11:25	1 ft	641128-003
S	10-24-19 11:30	2 ft	641128-004
S	10-24-19 11:35	1 ft	641128-005
S	10-24-19 11:40	2 ft	641128-006
S	10-24-19 11:50	1 ft	641128-007
S	10-24-19 11:55	2 ft	641128-008
S	10-24-19 12:10	1 ft	641128-009
S	10-24-19 12:15	2 ft	641128-010
S	10-24-19 12:25	1 ft	641128-011
S	10-24-19 12:35	2 ft	641128-012
S	10-24-19 12:45	1 ft	641128-013
S	10-24-19 12:50	2 ft	641128-014
S	10-24-19 13:10	1 ft	641128-015
S	10-24-19 13:20	2 ft	641128-016
	S S S S S S S S S S S S S S S S S S S	S 10-24-19 11:00 S 10-24-19 11:10 S 10-24-19 11:25 S 10-24-19 11:30 S 10-24-19 11:35 S 10-24-19 11:40 S 10-24-19 11:50 S 10-24-19 11:55 S 10-24-19 12:10 S 10-24-19 12:15 S 10-24-19 12:25 S 10-24-19 12:35 S 10-24-19 12:45 S 10-24-19 12:50 S 10-24-19 12:50	S 10-24-19 11:00 1 ft S 10-24-19 11:10 2 ft S 10-24-19 11:25 1 ft S 10-24-19 11:30 2 ft S 10-24-19 11:35 1 ft S 10-24-19 11:40 2 ft S 10-24-19 11:50 1 ft S 10-24-19 11:55 2 ft S 10-24-19 12:10 1 ft S 10-24-19 12:15 2 ft S 10-24-19 12:15 2 ft S 10-24-19 12:25 1 ft S 10-24-19 12:35 2 ft S 10-24-19 12:35 2 ft S 10-24-19 12:45 1 ft S 10-24-19 12:50 2 ft S 10-24-19 12:50 2 ft

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Delaware C

 Project ID:
 012919038
 Report Date:
 30-OCT-19

 Work Order Number(s):
 641128
 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

Date Received in Lab: Fri Oct-25-19 10:32 am

Report Date: 30-OCT-19 Project Manager: Jessica Kramer

Project Id: 012919038 **Contact:** Dan Moir

Project Location:

					1								
	Lab Id:	641128-0		641128-0		641128-0		641128-004		641128-005		641128-0	
Analysis Requested	Field Id:	PH17		PH174	١	PH18		PH18A		PH19		PH19A	4
Analysis Requesieu	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 11:4	
BTEX by EPA 8021B	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
SUB: T104704400-19-19	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		
Chloride by EPA 300	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	
SUB: T104704400-19-19	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	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		0 Oct-28-19 1	
SUB: T104704400-19-19	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

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

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Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO Project Name: PLU Delaware C

012919038 Dan Moir

Project Location:

Project Id:

Contact:

Date Received in Lab: Fri Oct-25-19 10:32 am

Report Date: 30-OCT-19 **Project Manager:** Jessica Kramer

	Lab Id:	641128-0	007	641128-	008	641128-0	009	641128-0	010	641128-	011	641128-	012
A sambasis Domesastad	Field Id:	PH20		PH20	4	PH21		PH21A		PH22	2	PH22	A
Analysis Requested	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	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
SUB: T104704400-19-19	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	00 <0.00198 0.0	
Chloride by EPA 300	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
SUB: T104704400-19-19	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	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
SUB: T104704400-19-19	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

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Jessian Vramer

Jessica Kramer Project Assistant

Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C

Date Received in Lab: Fri Oct-25-19 10:32 am

Report Date: 30-OCT-19 Project Manager: Jessica Kramer

Project Id: 012919038 **Contact:** Dan Moir

Project Location:

			1							1	
	Lab Id:	641128-0	013	641128-0	014	641128-0	015	641128-	016		
Analysis Requested	Field Id:	PH23		PH23A	A	PH24		PH24A			
Anatysis Requestea	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	Extracted:	Oct-29-19	14:00	Oct-29-19	14:00	Oct-29-19	14:00	Oct-29-19	14:00		
SUB: T104704400-19-19	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	Extracted:	Oct-28-19	13:20	Oct-28-19	13:20	Oct-28-19	13:20	Oct-28-19	13:20		
SUB: T104704400-19-19	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	Extracted:	Oct-28-19	13:00	Oct-28-19	13:00	Oct-28-19	13:00	Oct-28-19	13:00		
SUB: T104704400-19-19	Analyzed:	Oct-28-19 2	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		

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

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fession Weamer

Jessica Kramer Project Assistant



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

10.28.19 11.25

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

CHE

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst:

Date Prep:

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:

Basis:

Analyst: ARM Seq Number: 3105660

Date Prep: 10.28.19 13.00

SUB: T104704400-19-19

Wet Weight

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		



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flog	Dil
1 at afficiet	Cas Mulliber	Kesuit	KL		Units	Analysis Date	Flag	DII
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		



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

10.28.19 11.25

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: CHE

Seq Number: 3105644

Analyst:

CHE Date Prep: Basis:

Wet Weight

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

% Moisture:

70-135

DVM Tech: ARM

o-Terphenyl

Analyst:

10.28.19 13.00 Date Prep:

98

Basis: Wet Weight SUB: T104704400-19-19

10.28.19 17.01

Seq Number: 3105660

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		

84-15-1



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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		



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

10.28.19 11.25

Sample Depth: 1 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

% Moisture:

CHE Tech:

Date Prep:

Basis:

CHE Analyst: Seq Number: 3105644

Wet Weight SUB: T104704400-19-19

Parameter Cas Number Result RLUnits **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

10.28.19 17.19

% Moisture:

70-135

DVM Tech: ARM Analyst:

o-Terphenyl

10.28.19 13.00 Date Prep:

97

Basis: Wet Weight SUB: T104704400-19-19

Seq Number: 3105660

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		

84-15-1



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: Matrix: Soil Date Received:10.25.19 10.32 **PH18**

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:

KTL Analyst: 10.29.19 14.00 Basis: Wet Weight Date Prep:

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		



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

10.28.19 11.25

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: CHE

Date Prep:

Basis:

CHE Analyst: Seq Number: 3105644

SUB: T104704400-19-19

Wet Weight

Wet Weight

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil 16887-00-6 Chloride 10.28.19 14.52 13.8 4.98 mg/kg 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DVM

% Moisture:

Basis:

ARM Analyst: Seq Number: 3105660

10.28.19 13.00 Date Prep:

SUB: T104704400-19-19

Parameter	Cas Number	Result	\mathbf{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		



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

.	G N 1	D 1/						
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		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: PH19

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:

Basis:

Analyst: CHE

Seq Number: 3105644

Date Prep: 10.28.19 11.25

SUB: T104704400-19-19

Wet Weight

Wet Weight

Date Received:10.25.19 10.32

 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

Matrix:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DVM

% Moisture:

Basis:

Analyst: ARM Seq Number: 3105660

Date Prep: 10.28.19 13.00

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		



Tech:

Certificate of Analytical Results 641128

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

Parameter	Cas Number	r 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		



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

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

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: DVM

o-Terphenyl

Date Prep: 10.28.19 13.00

100

Basis: Wet Weight SUB: T104704400-19-19

10.28.19 18.15

70-135

Analyst: ARM Seq Number: 3105660

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		

84-15-1



Tech:

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: BTEX by EPA 8021B Prep Method: SW5030B

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
	Cus i tumber	Result	KL		Omts	Analysis Date	riag	DII
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		



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:

Basis:

Analyst: SPC

Date Prep: 10.28.19 13.20

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

DVM

% Moisture:

Basis:

Analyst: ARM Seq Number: 3105660

o-Terphenyl

Tech:

Date Prep: 10.28.19 13.00

95

SUB: T104704400-19-19

10.28.19 18.34

70-135

Wet Weight

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		

84-15-1



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

10.28.19 13.20

Matrix: Sample Id: PH20A 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:

SPC Analyst: Seq Number: 3105654 Basis:

SUB: T104704400-19-19

Wet Weight

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

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

DVM Tech: ARM

Analyst:

10.28.19 13.00 Date Prep:

Basis: Wet Weight 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		



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

10.28.19 13.20

Matrix: Sample Id: **PH21** 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:

SPC Analyst: Seq Number: 3105654

Basis: Wet Weight 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

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

70-135

DVM Tech: ARM

o-Terphenyl

Analyst:

10.28.19 13.00 Date Prep:

97

Basis: Wet Weight SUB: T104704400-19-19

10.28.19 19.11

Seq Number: 3105660

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		

84-15-1



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH21A

Lab Sample Id: 641128-010

Analytical Method: Chloride by EPA 300

Tech: SPC

SPC Analyst:

Seq Number: 3105654

Matrix:

Soil Date Collected: 10.24.19 12.15

10.28.19 13.20

Date Received:10.25.19 10.32

Sample Depth: 2 ft

Prep Method: E300P

% Moisture:

Basis:

Wet Weight

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

Date Prep:

Analytical Method: TPH by SW8015 Mod

DVM Tech:

ARM Analyst:

Seq Number: 3105660

Date Prep:

10.28.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

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		



Tech:

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: BTEX by EPA 8021B Prep Method: SW5030B

KTL % Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

Parameter	Cas Number	r 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		



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

SPC

Date Collected: 10.24.19 12.25

10.28.19 13.20

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: SPC

Analyst:

Date Prep:

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:

Basis:

Analyst: ARM Seq Number: 3105660

Date Prep: 10.28.19 13.00

SUB: T104704400-19-19

Wet Weight

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		



Tech:

Certificate of Analytical Results 641128

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

Parameter	Cas Number	Result	\mathbf{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		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: PH22A Matrix:

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

SPC

Prep Method: E300P % Moisture:

Tech: SPC

Analyst:

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 Seq Number: 3105660

Date Prep: 10.28.19 13.00

Basis: Wet Weight 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		



Tech:

Certificate of Analytical Results 641128

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: **PH23** Matrix:

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

SPC Tech:

% Moisture:

Basis:

SPC Analyst: Seq Number: 3105654

10.28.19 13.20

Wet Weight

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

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

DVM Tech: ARM

Seq Number: 3105660

Analyst:

Date Prep: 10.28.19 13.00

Basis: Wet Weight SUB: T104704400-19-19

Cas Number Result RL**Parameter** Units **Analysis Date** Flag Dil PHC610 10.28.19 20.45 U Gasoline Range Hydrocarbons (GRO) <50.0 50.0 mg/kg 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 10.28.19 20.45 U mg/kg Total GRO-DRO PHC628 < 50.0 50.0 mg/kg 10.28.19 20.45 U Total TPH PHC635 50.0 10.28.19 20.45 U < 50.0 mg/kg 1 % Flag

Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date
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



Tech:

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: BTEX by EPA 8021B Prep Method: SW5030B

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flog	Dil
1 at affecter	Cas Number	Kesuit	KL		Units	Alialysis Date	Flag	DII
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		



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:

Basis:

Analyst: SPC

10.28.19 13.20

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

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

DVM

% Moisture:

Basis:

Analyst: ARM Seq Number: 3105660

Tech:

Date Prep: 10.28.19 13.00

SUB: T104704400-19-19

Wet Weight

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		



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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		



Lab Sample Id: 641128-015

Seq Number: 3105654

Tech:

Tech:

Analyst:

Analytical Method: Chloride by EPA 300

SPC

SPC

Certificate of Analytical Results 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Matrix: Sample Id: **PH24**

Date Received:10.25.19 10.32

Soil Date Collected: 10.24.19 13.10

Sample Depth: 1 ft

Prep Method: E300P

% Moisture:

Date Prep: 10.28.19 13.20

Basis: Wet Weight

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

DVM

ARM Analyst: Seq Number: 3105660

10.28.19 13.00 Date Prep:

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

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		



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: PH24A Matrix:

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

SPC

Prep Method: E300P % Moisture:

Basis:

Tech: SPC

Analyst:

Tech:

Date Prep: 10.28.19 13.20

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

DVM

Date Prep: 10.28.19 13.00

% Moisture: Basis:

Analyst: ARM Seq Number: 3105660

SUB: T104704400-19-19

Wet Weight

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		



Tech:

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

% Moisture:

Analyst: KTL Date Prep: 10.29.19 14.00 Basis: Wet Weight

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.

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

^{**} Surrogate recovered outside laboratory control limit.

E300P

E300P

10.28.19

Prep Method:

Date Prep:



QC Summary 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: Chloride by EPA 300

Seq Number: 3105644 Matrix: Solid

LCS Sample Id: 7688995-1-BKS LCSD Sample Id: 7688995-1-BSD MB Sample Id: 7688995-1-BLK

MR Spike LCS LCS Limits %RPD RPD Limit Units LCSD LCSD Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result 10.28.19 12:09 Chloride < 5.00 250 243 97 245 98 90-110 20 mg/kg

Analytical Method: Chloride by EPA 300 E300P Prep Method: Seq Number: 3105654 Matrix: Solid Date Prep: 10.28.19

7689018-1-BKS MB Sample Id: 7689018-1-BLK LCS Sample Id: LCSD Sample Id: 7689018-1-BSD

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

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

MS Sample Id: 640979-091 S MSD Sample Id: 640979-091 SD 640979-091 Parent Sample Id:

MS %RPD RPD Limit Units Parent Spike MS **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result %Rec Amount Result %Rec Chloride 15.0 249 255 96 261 99 90-110 2 20 10.28.19 12:27 mg/kg

Analytical Method: Chloride by EPA 300

Prep Method: Seq Number: 3105644 Matrix: Soil Date Prep: 10.28.19 MSD Sample Id: 641117-008 SD 641117-008 MS Sample Id: 641117-008 S Parent Sample Id:

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

Chloride 1140 199 1320 90 1330 95 90-110 20 10.28.19 13:48 1 mg/kg

Analytical Method: Chloride by EPA 300

E300P Prep Method: 3105654 Matrix: Soil Seq Number: Date Prep: 10.28.19

Parent Sample Id: 641128-007 MS Sample Id: 641128-007 S MSD Sample Id: 641128-007 SD

Parent Spike MS MS Limits %RPD RPD Limit Units Analysis **MSD MSD** Flag **Parameter** Result Date Result Amount %Rec Result %Rec Chloride 579 249 803 90 806 91 90-110 0 20 mg/kg 10.28.19 16:07

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

Log Difference

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

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

LCS = Laboratory Control Sample A = Parent Result

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

Flag

Flag



QC Summary 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: Chloride by EPA 300

Seq Number: 3105654 Matrix: Soil

MS Sample Id: 641200-021 S 641200-021

E300P Prep Method:

Date Prep: 10.28.19 MSD Sample Id: 641200-021 SD

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

90-110 10.28.19 14:55 Chloride 218 250 479 104 471 101 2 20 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number: 3105660

Parent Sample Id:

Matrix: Solid

SW8015P Prep Method:

10.28.19

Date Prep:

MB Sample Id: 7689072-1-BLK LCS Sample Id: 7689072-1-BKS LCSD Sample Id: 7689072-1-BSD

Spike LCS LCS %RPD RPD Limit Units MB LCSD LCSD Limits Analysis **Parameter** Result Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 1000 1130 113 1110 70-135 2 20 mg/kg 10.28.19 15:27 <15.0 111 Diesel Range Organics (DRO) 1080 108 1060 70-135 2 20 10.28.19 15:27 <15.0 1000 106 mg/kg

MB MB LCS LCS LCSD LCSD Limits Units Analysis Surrogate %Rec Flag %Rec Flag %Rec Flag Date 10.28.19 15:27 1-Chlorooctane 105 129 124 70-135 % 70-135 10.28.19 15:27 o-Terphenyl 105 115 111 %

Analytical Method: TPH by SW8015 Mod

Seq Number: 3105660 Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.28.19

MB Sample Id: 7689072-1-BLK

MB Units **Parameter** Result

Analysis Flag Date

Motor Oil Range Hydrocarbons (MRO) 10.28.19 15:08 < 50.0 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

3105660

Matrix: Soil

Prep Method:

SW8015P

Date Prep: 10.28.19

MS Sample Id: 641128-001 S MSD Sample Id: 641128-001 SD Parent Sample Id: 641128-001

%RPD RPD Limit Units MS Limits Parent Spike MS **MSD MSD** Analysis Flag **Parameter** Result Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 103 10.28.19 16:23 <15.0 999 1030 1050 105 70-135 2 20 mg/kg 986 70-135 10.28.19 16:23 Diesel Range Organics (DRO) <15.0 999 99 1000 100 20 mg/kg

MS MS **MSD** Limits Units Analysis **MSD Surrogate** Flag %Rec Flag Date %Rec 10 28 19 16:23 1-Chlorooctane 122 123 70-135 % o-Terphenyl 105 104 70-135 % 10.28.19 16:23

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

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

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

LCS = Laboratory Control Sample A = Parent Result

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

Flag

Flag



QC Summary 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: BTEX by EPA 8021B SW5030B Prep Method: Seq Number: 3105876 Matrix: Solid Date Prep: 10.29.19

LCS Sample Id: 7689147-1-BKS LCSD Sample Id: 7689147-1-BSD MB Sample Id: 7689147-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date]
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	
Surragata	MB	MB	L	CS I	LCS	LCSI) LCS	D L	imits	Units	Analysis	

Surrogate Flag Flag Date %Rec Flag %Rec %Rec 95 97 99 10.29.19 21:23 1,4-Difluorobenzene 70-130 % 104 10.29.19 21:23 4-Bromofluorobenzene 98 115 70-130 %

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

Seq Number: 3105876 Matrix: Soil Date Prep: 10.29.19 MS Sample Id: 640977-001 S MSD Sample Id: 640977-001 SD 640977-001 Parent Sample Id:

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date
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 Relative Percent Difference LCS/LCSD Recovery Log Difference

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

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

LCS = Laboratory Control Sample

C = MS/LCS Result

A = Parent Result E = MSD/LCSD Result

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

Dan Moir

City, State ZIP:

Midland, TX 79705 3300 North A Street LT Environmental, Inc.,

City, State ZIP:

Carlsbad, NM 88220

☐RRP [evel IV [

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC

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Work Order Comments

State of Project:

Chain of Custody

Work Order No: 1941 128

Permian office Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296 Address: Company Name: Bill to: (if different) 3104 East Green Street XTO Energy Kyle Littrell

Phone:	(432) 236-3849		Email: slo@lte	Email: slo@ltenv.com, dmoir@ltenv.com	@ltenv.com		Deliverables: EDD ADaPT	Other:
Project Name:	PLU Delaware	C	Turn Around	nd		ANALYSIS REQUEST		Work Order Notes
Project Number:	86981110	3	Routine V					
P.O. Number:			Rush:					
Sampler's Name:	Spencer Lo	ær Lo	Due Date:					
SAMPLE RECEIPT	PT Temp Blank:	nk: Yes No	Wet loe: Wes	No				
Temperature (°C):	2.0		Thermometer ID					-
Received Intact:)		air				
Received Intact:	T CD	71	+00-MY		021			
Cooler Custody Seals:	Yes (No N/A		Correction Factor:	Co)=8(
Sample Custody Seals	Yes NO NIA		Total Containers: 1 U	r of	PA (TAT st	TAT starts the day recevied by the
Sample Identification	fication Matrix	Date ix Sampled	Time Depth	Numbe	TPH (EP	Chloride	8	Sample Comments
LMA	5	10-24.19	1100 1	+	× E			
PHITA	}		1110 2		×			
8140	\ \	10-24.19	1 5211	-	<			
011/84	\		1130 2	1 7	×	~		
PHIG	. ~	30.4.19	1135 1	- ×	^ <			
HOLHA)	10-24-19	1140 2	_	×			
atha	~	10.24.15	1/50 1		×	~ '		
PHIOT	~	10.24.19	1155 2	-	×	*		
M PH21	\ \	10-24-19	1210 1		` ^			
02 A FH71 A	3	10.24.19	1115 1	_ ×	×			
10:04:0	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	8R	13PPM P/SPLP	Sp Sp	As Ba Be As Ba Be	B Cd Ca Cr Co Cu Fe Cd Cr Co Cu Pb Mn N	Mo Ni K Se Ag SiC	1631 / 245.1 / 7470 / 7471 : Ho
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: 4/	Signature)	Received by	Received by: (Signature)	Dat	Date/Time	Relinquished by: (Signature)	e) Received by: (Signature)	Date/Time
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Received by

Chain of Custody

Work Order No:

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Work Order Comments

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Permian office Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296 Address: Bill to: (if different) Company Name: 3104 East Green Street XTO Energy Kyle Littrell Program: UST/PST □ RP □ Brownfields □ RC State of Project:

Received		4 Completion of Continue	Record of 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 the control of 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 the control	20 10:04		AM			4414	hthd	DHUJA	£140	PHRZA	27 11	17410	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	Sampler's Name:	P.O. Number:	Project Number:	Project Name:	Phone: (4	ate ZIP:
	he	gradue)	spatials (\$75.00 will be applied to	and Metal(s) to be a					C		4	5	>		\$	ation Matrix	Yes No N/A	Yes No N/A	Yes No		Temp Blank:	Spencer Lo	15	012918038	PLU Splanere	(432) 236-3849	Midland, TX 79705
		Kecelved b	each project and	8RCRA nalyzed TCL of samples constitutes					10.24.6	10.24.19	10.14.19	10. W.19	10.24.15	10- 24-1 4	10.10	× Date × Sampled					nk: Yes No	er Lo			0		
		Received by: (Signature)	assume any response a charge of \$5 fo	CRA 13PPM Texas 11 AI TCLP / SPLP 6010: 8RCRA Itutes a valid purchase order from client	11 1				1320	1310	1250	1245	1235	1225	Campion	Time	Total Containers:	Correction Factor:		Jue mometer 1D	Wet Ice:	Due Date	Rush:	Routine	Tul	Email:	
	1-0		onsibility for any or each sample s	Texas 11 6010: 8RC					2	1	2	1	2	1		Depth				ā	Yes No)ate:		ne 🗸	Turn Around	Email: slo@ltenv.com, dmoir@ltenv.com	City, State ZIP:
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	E	ure)	o circums unless p	Ni Se												Ħ					t			<u>ا</u>	REQUEST	Deli	Rep
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Revised Date 051418 Rev. 2018.1	10125/14/03	Date/Time		¹² Na Sr TI Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg											sample comments	Sample Comments	TAT starts the day recevied by the							TOTAL MOTES	Work Order Notes	.7	RRP Nevel IV
	to Imag	ing	: 10/18	3/2022 1	l:59	:20	$\frac{1}{AM}$					Pa					he					-		al 1.0		L	

City, State

Address:

3300 North A Street LT Environmental, Inc., Dan Moir

Inter-Office Shipment



Page 1 of 3

 $IOS\ Number\quad 50900$

Date/Time: 10/25/19 15:50 Created by: Elizabeth Mcclellan Please send report to: Jessica Kramer

Lab# From: Carlsbad Delivery Priority: Address: 1089 N Canal Street

Lab# To: **Midland** Air Bill No.: 776821232900 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



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IOS Number 50900

Date/Time: 10/25/19 15:50 Created by: Elizabeth Mcclellan Please send report to: Jessica Kramer

Lab# From: Carlsbad Delivery Priority: Address: 1089 N Canal Street

Lab# To: **Midland** Air Bill No.: 776821232900 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:

Released to Imaging: 10/18/2022 11:59:20 AM

Received By:



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IOS Number 50900

Date/Time: 10/25/19 15:50 Created by: Elizabeth Mcclellan

Lab# From: **Carlsbad** Delivery Priority:

Lab# To: **Midland** Air Bill No.: 776821232900

Inter Office Shipment or Sample Comments:

Date Relinquished:

Elizabeth McClellan

10/25/2019

Please send report to: Jessica Kramer

Address: 1089 N Canal Street

E-Mail: jessica.kramer@xenco.com

Date Received:

Cooler Temperature:

Brianna Teel

10/28/2019 07:26

0.4

Received by OCD: 4/16/2020 10:04:02 AM

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

Date Sent: 10/25/2019 03:50 PM Sent By: Elizabeth McClellan

Received By: Brianna Teel	Date Received: 10/28/2019 0	7:26 AM	
	Sample Receipt Checkl	ist	Comments
#1 *Temperature of cooler(s)?		.4	
#2 *Shipping container in good condition	on?	Yes	
#3 *Samples received with appropriate	temperature?	Yes	
#4 *Custody Seals intact on shipping c	ontainer/ cooler?	Yes	
#5 *Custody Seals Signed and dated for	or Containers/coolers	Yes	
#6 *IOS present?		Yes	
#7 Any missing/extra samples?		Yes	
#8 IOS agrees with sample label(s)/ma	atrix?	No	
#9 Sample matrix/ properties agree wit	h IOS?	Yes	
#10 Samples in proper container/ bottle	e?	Yes	
#11 Samples properly preserved?		Yes	
#12 Sample container(s) intact?		Yes	
#13 Sufficient sample amount for indic	ated test(s)?	Yes	
#14 All samples received within hold ti	me?	Yes	
* Must be completed for after-hours d NonConformance:	elivery of samples prior to plac	cing in the refrigerator	
Corrective Action Taken:			
	Nonconformance Docur	nentation	
Contact:	Contacted by :	Date:	
Checklist reviewed by:	Brianna Teel	Date: 10/28/2019	



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 10/25/2019 10:32:00 AM

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

Work Order #: 641128

Temperature Measuring device used: T-NM-007

S	ample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?		.2
#2 *Shipping container in good condition?	Y	'es
#3 *Samples received on ice?	Y	'es
#4 *Custody Seals intact on shipping containe	r/ cooler?	'es
#5 Custody Seals intact on sample bottles?	Y	'es
#6*Custody Seals Signed and dated?	Y	'es
#7 *Chain of Custody present?	Y	'es
#8 Any missing/extra samples?	N	No
#9 Chain of Custody signed when relinquished	d/ received?	'es
#10 Chain of Custody agrees with sample labe	els/matrix? Yo	'es
#11 Container label(s) legible and intact?	Y	'es
#12 Samples in proper container/ bottle?	Y	'es
#13 Samples properly preserved?	Y	'es
#14 Sample container(s) intact?	Y	'es
#15 Sufficient sample amount for indicated tes	st(s)?	'es
#16 All samples received within hold time?	Y	'es
#17 Subcontract of sample(s)?	Y	'es Subbed to Midland
#18 Water VOC samples have zero headspace	e? N	I/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

Checklist reviewed by: June 10/25/2019

Date: 10/28/2019

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

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

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

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

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

CONDITIONS

Action 5010

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	5010
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	Depth to groundwater is not adequately identified. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If evidence of depth to ground water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less. This release does appear to have been vertically and horizontally defined to 4' and does appear to meet the strictest remediation requirements in Table 1 19.15.29.12 NMAC.	10/18/2022