<u>District I</u> 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	NRM2009841041
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy			OGRID 53	380		
Contact Name Kyle Littrell Contact		Contact To	Telephone 432-221-7331			
Contact ema	il Kyle_Littr	rell@xtoenergy.co	m	Incident #	(assigned by OCL	0)
Contact mail	ling address	522 W. Mermod,	Carlsbad, NM 882	20		
			Location	of Release So	ource	
Latitude 32.2	2888794			Longitude _	-103.9292603	3
			(NAD 83 in dec	cimal degrees to 5 decin	nal places)	
Site Name Na	ash Deep Ea	st 18-16 SWD Tru	nk Line	Site Type s	SWD Trunk Li	ne
Date Release				API# (if app	olicable)	
	Γ ~ .					
Unit Letter	Section	Township	Range	Cour		
L	19	23S	30E	Edd	ly	
Surface Owne	r: 🔀 State	☐ Federal ☐ Tr	ibal □ Private (A	Name:)
			· ·			,
			Nature and	l Volume of l	Release	
				calculations or specific		e volumes provided below)
Crude Oi	1	Volume Release	d (bbls)		Volume Rec	overed (bbls)
X Produced	Water	Volume Release	d (bbls) 198.37		Volume Rec	overed (bbls) 160
Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?		Yes 1	No			
Condensate Volume Released (bbls)		Volume Recovered (bbls)				
☐ Natural Gas Volume Released (Mcf)		Volume Rec	overed (Mcf)			
Other (describe) Volume/Weight Released (provide units)		e units)	Volume/Weight Recovered (provide units)			
Cause of Rel	connect	tion on a joint was	water line was ide found and repaire	entified and the lined. A third party co	e was shut in. A	A failed e retained to complete remediation
activities.						

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1 115	en jagen	U	w.	/ AL

Incident ID	NRM2009841041
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Application ID	

Was this a major	If YES, for what reason(s) does the respor	· ·
release as defined by 19.15.29.7(A) NMAC?	An unauthorized fluid release of an amoun	t greater than 25 barrels.
19.13.29.7(A) NWIAC?		
X Yes ☐ No		
	•	m? When and by what means (phone, email, etc)?
	her, Mike, EMNRD; Hamlet, Robert, EMN n Monday, March 23, 2020 2:38 PM.	RD; Venegas, Victoria, EMNRD; 'Griswold, Jim, EMNRD';
	Initial Ro	esponse
The responsible p	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.	
X The impacted area ha	s been secured to protect human health and	the environment.
■ Released materials has	ave been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and	l managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain v	vhy:
has begun, please attach	a narrative of actions to date. If remedial e	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
I hereby certify that the infor	rmation given above is true and complete to the	best of my knowledge and understand that pursuant to OCD rules and
		ications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have
failed to adequately investigated	ate and remediate contamination that pose a thre	at to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of and/or regulations.	f a C-141 report does not relieve the operator of	responsibility for compliance with any other federal, state, or local laws
•	ell	Title: SH&E Supervisor
Signature:	ell fund	Date:4-3-20
email: Kyle_Littrell@xto	penergy.com	Date:4-3-20 Telephone:432-221-7331
OCD Only		
Received by: Ramona N	Marcus	Date: <u>4/7/2020</u>
-		

NRM2009841041

Location:	Nash Deep East 18-16 SWD Trunk Line		
Spill Date:	3/23/2020		
	Area 1		•
Approximate A			sq. ft.
Average Satura	ation (or depth) of spill =	72.00	inches
Average Poros	ity Factor =	0.15	
- The same of the	,		Į.
T : 10 1 0	VOLUME OF LEAK	0.00	l
Total Crude Oil		167.90	bbls bbls
TotalTTodaccc	Area 2	107.50	5513
Approximate A		350.00	sq. ft.
Average Satura	ation (or depth) of spill =		inches
Average Peres	ity Factor –	0.15	l
Average Poros	ity ractor –	0.15	
	VOLUME OF LEAK		
Total Crude Oi			bbls
Total Produced		3.12	bbls
Approximate A	Area 3	864.00	ca ft
	ation (or depth) of spill =		inches
	(
Average Poros	ity Factor =	0.15	
	VOLUME OF LEAK		
Total Crude Oi		0.00	bbls
Total Produced		7.69	bbls
	Area 4		
Approximate A		178.00	_
Average Satura	ation (or depth) of spill =	12.00	inches
Average Poros	ity Factor =	0.15	
Total Crude Oi	VOLUME OF LEAK	0.00	bbls
Total Produced			bbls
	Area 5		
Approximate A		283.00	sq. ft.
Average Satura	ation (or depth) of spill =	10.00	inches
Average Poros	ity Factor =	0.15	
7.17.01.00	Ny - deter	0.13	I
	VOLUME OF LEAK		I
Total Crude Oi Total Produced			bbls bbls
Total Floudcec	Area 6	0.30	DDIS
Approximate A		644.00	sq. ft.
	ation (or depth) of spill =		inches
A	The Franks	0.45	ı
Average Poros	ity Factor =	0.15	
	VOLUME OF LEAK		
Total Crude Oi		0.00	bbls
Total Produced	l Water =	8.60	bbls
	TOTAL VOLUME OF LEAK		
Total Crude Oi	_	0.00	bbls
Total Produced	d Water =	198.37	bbls
	TOTAL VOLUME RECOVERED		
Total Crude Oi	I=	0.00	bbls

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Incident ID	NRM2009841041	
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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?	<50 (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?	X 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?	X 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?	X Yes ☐ No
A44-1	4:144£ '1

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.

Com	annihilation associated with the release have been determined. Refer to 19.13.29.11 NMAC for specifies.
<u>Ch</u>	aracterization 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
$ \times $	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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Page 4 Oil Conservation Division

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A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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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 items must be included in the closure report.

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
Description of remediation activities
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: Title: SH&E Supervisor G/18/20
OCD Only
Received by: Date:
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.
Closure Approved by:Date:
Printed Name: Title:



LT Environmental, Inc.

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

June 18, 2020

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

RE: Closure Request

Nash Deep East 18-16 SWD Trunk Line Incident Number NRM2009841041 Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, soil removal, and soil sampling activities at the Nash Deep East 18-16 SWD Trunk Line (Site) located in Unit L, Section 19, Township 23 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to address impacts to soil following a release of produced water at the Site. Based on the results of the soil sampling events, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2009841041.

RELEASE BACKGROUND

On March 23, 2020, a leak from the produced water line was identified. The line was shut in and a failed connection on a joint was found and repaired. The release occurred within an excavation for the installation of a pipeline. Approximately 198.37 barrels (bbls) of produced water were released, of which 160 bbls of produced water were recovered by vacuum truck. XTO immediately reported the release via email to the New Mexico Oil Conservation Division (NMOCD) on April 3, 2020. XTO then submitted a Release Notification and Corrective Action Form C-141 (Form C-141) and was subsequently assigned Incident Number NRM2009841041.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be less than 50 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is 321717103561001, located approximately 2,236 feet West of the Site. The water well has a depth to groundwater of 50 feet and a total depth that has not been determined. Ground surface elevation at the water well location is 3,034 feet above mean sea level (AMSL), which is approximately 3 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry tributary located approximately

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Bratcher, M. Page 2

138 feet northeast 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 high potential karst area.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg;
- Total petroleum hydrocarbons (TPH): 100 mg/kg; and
- Chloride: 600 mg/kg.

SITE ASSESSMENT ACTIVITIES

On April 15 and April 16, 2020, LTE personnel inspected the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected five preliminary soil samples (SS01 through SS05) from within the release extent at a depth of approximately 8 feet bgs to assess the lateral extent of impacted soil. The samples were collected on the floor of the pipeline excavation. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively.

Preliminary soil samples SS01 though SS05 were collected within the previously excavated pipeline right-of-way (ROW). The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during assessment activities. A photographic log is included in Attachment 1.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D, and chloride following EPA Method 300.0.



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Based on the laboratory analytical results for preliminary soil samples SS01 through SS05 and field screening results; chloride concentrations in the soil exceeded the Closure Criteria. As such, excavation activities appeared to be warranted. Laboratory analytical results for the preliminary soil samples are presented on Figure 2 and summarized in Table 1. The complete laboratory analytical report is included in Attachment 2.

EXCAVATION ACTIVITIES

From April 17 through May 04, 2020, LTE personnel oversaw excavation of impacted soil in the vicinity of SS01 through SS05, within the pipeline ROW, via hydro vacuum. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride. The final depth of the excavation ranged from 8 feet bgs to 13 feet bgs. Some areas of the floor of the excavation remained at 8 feet bgs due to the presence of bedrock. Those areas were power washed and any runoff was excavated with the hydro vacuum. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW08 were collected from the sidewalls of the excavation from depths ranging from the ground surface to a maximum of 13 feet bgs. Composite soil samples FS01 through FS14 were collected from the floor of the excavation at depths ranging from 8 feet bgs to 13 feet bgs.

From May 13 through May 26, 2020, LTE personnel oversaw excavation of impacted soil in the vicinity of composite soil samples FS04, FS07, and SW03. Laboratory analytical results indicated chloride concentrations in the soil exceeded the Closure Criteria. Following the additional excavation, composite floor samples FS04A/FS04B and FS07A were collected at a depth of 8.5 feet bgs. Composite soil sample SW03 was recollected from the sidewall of the excavation from the ground surface to approximately 8 feet bgs. The excavation soil samples were collected, handled and analyzed as described above, and submitted to Xenco in Carlsbad, New Mexico.

The pipeline ROW excavation extent was approximately 2,897 square feet and approximately 54 cubic yards of impacted soil were removed. Bedrock was encountered at 8 feet bgs throughout the excavation extent with except toward the south, where the excavation was extended to 13 feet bgs. The final excavation extent and composite soil sample locations are presented on Figure 3. The impacted soil was transported and properly disposed of at the R360 landfill facility located in Hobbs, New Mexico.

CONCLUSIONS

A total of 160 bbls of produced water were recovered by vacuum truck and approximately 536 cubic yards of impacted soil were excavated from the Site during remediation activities. Impacts to bedrock encountered at the base of the excavation were addressed by power washing Laboratory analytical results indicated benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride



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concentrations were compliant with Closure Criteria in all final confirmation soil samples collected from the excavation in the pipeline ROW. As such, XTO respectfully requests NFA for the release associated with Incident Number NRM2009841041.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Fatima Smith Staff Geologist

Ashley L. Ager, P.G. Senior Geologist

ashley L. ager

cc:

Kyle Littrell, XTO

Jim Amos, BLM

Robert Hamlet, NMOCD Victoria Venegas, NMOCD

Appendices:

Figure 1

Site Location Map

Figure 2

Preliminary Soil Sample Locations

Figure 3

Excavation Soil Sample Locations

Table 1

Soil Analytical Reports

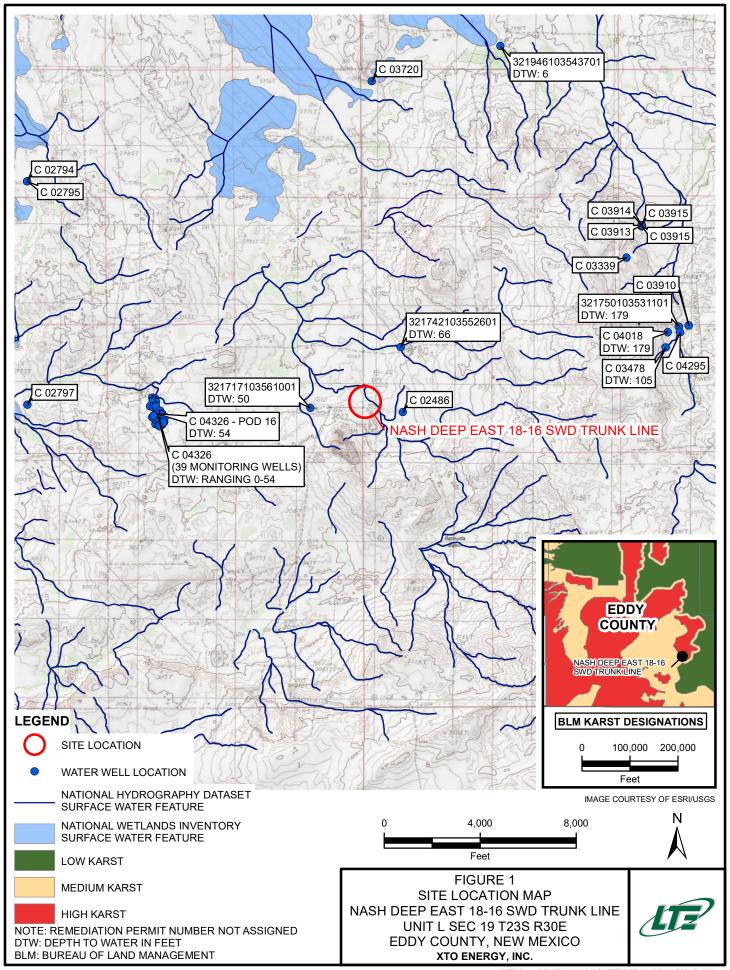
Table 1

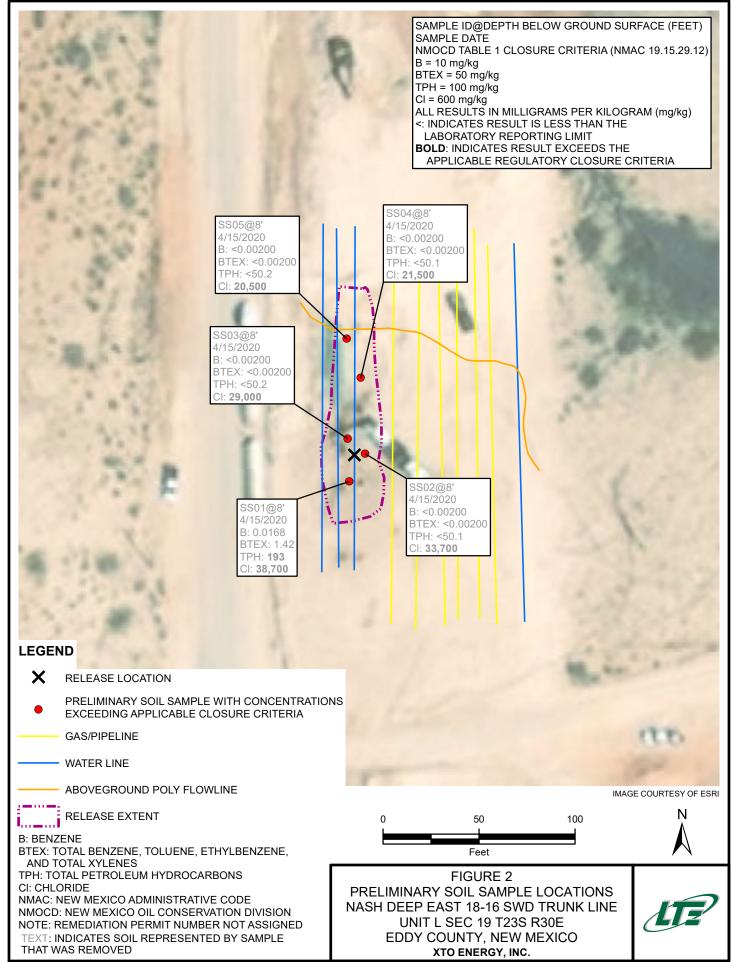
Attachment 1 Photographic Log

Attachment 1 motographic Log

Attachment 2 Laboratory Analytical Reports







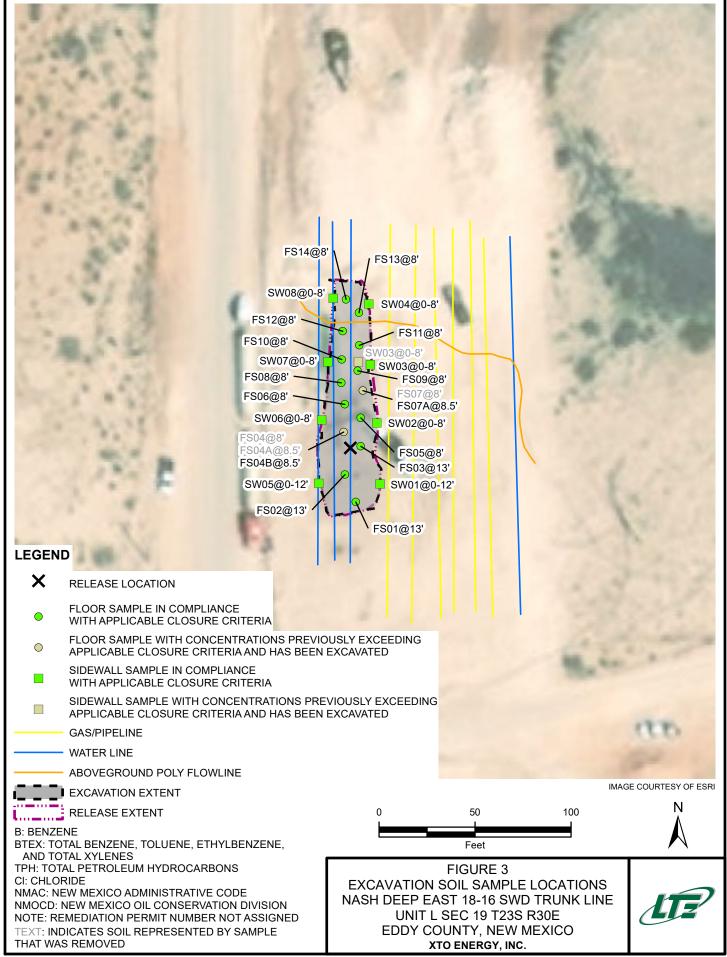




TABLE 1 SOIL ANALYTICAL RESULTS

NASH DEEP EAST 18-16 SWD TRUNK LINE REMEDIATION PERMIT NUMBER NOT ASSIGNED 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	e 1 Closure Crit	eria	10	NE	NE	NE	50	NE	NE	NE	NE	100	600
SS01	8	04/15/2020	0.0168	0.195	0.147	1.06	1.42	<50.3	193	<50.3	193	193	38,700
SS02	8	04/15/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	33,700
SS03	8	04/15/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	29,000
SS04	8	04/15/2020	<0.00200	<0.00200	<0.00200	< 0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	21,500
SS05	8	04/15/2020	<0.00200	<0.00200	<0.00200	< 0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	20,500
SW01	0 - 12	04/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	454
SW02	0 - 8	04/21/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	233
SW03	0 - 8	04/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	603
SW03	0 - 8	04/29/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	204
SW04	0 - 8	04/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	112
SW05	0 - 12	04/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	493
SW06	0 - 8	04/27/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	81.1
SW07	0 - 8	04/28/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	348
SW08	0 - 8	04/29/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	470
FS01	13	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	70.9
FS02	13	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	38.2
FS03	13	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	96.9
FS04	8	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,030
FS04A	8.5	05/13/2020	< 0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	707
FS04B	8.5	05/26/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	300
FS05	8	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	53.8
FS06	8	05/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	20.0



TABLE 1 SOIL ANALYTICAL RESULTS

NASH DEEP EAST 18-16 SWD TRUNK LINE REMEDIATION PERMIT NUMBER NOT ASSIGNED 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	e 1 Closure Crit	eria	10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS07	8	05/04/2020	<0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	2,200
FS07A	8.5	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	184
FS08	8	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	276
FS09	8	05/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	285
FS10	8	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	72.5
FS11	8	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	141
FS12	8	05/04/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	66.2
FS13	8	05/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	120
FS14	8	04/29/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	331

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

Grey - indicates removed soil

< - indicates result is below laboratory reporting limits

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



PHOTOGRAPHIC LOG



Photograph 1: View of initial staining along line.



Photograph 2: View west of staining along line.



Photograph 3: View southwest of the final excavation extent.

Nash Deep East 18-16 SWD Truck Line Incident Number NRM2009841041 Photographs Taken: April 9 through May 26, 2020

Page 1 of 1







Analytical Report 658964

for

LT Environmental, Inc.

Project Manager: Tacoma Morrissey

Nash Deep 18-16 012920043 04.20.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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



04.20.2020

Project Manager: Tacoma Morrissey

LT Environmental, Inc. 4600 W. 60th Avenue Arvada, CO 80003

Reference: XENCO Report No(s): 658964

Nash Deep 18-16 Project Address:

Tacoma Morrissey:

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) 658964. 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. 658964 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 658964

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	04.15.2020 09:50	8 ft	658964-001
SS02	S	04.15.2020 09:52	8 ft	658964-002
SS03	S	04.15.2020 09:54	8 ft	658964-003
SS04	S	04.15.2020 10:08	8 ft	658964-004
SS05	S	04.15.2020 10:02	8 ft	658964-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

Project ID: 012920043 Work Order Number(s): 658964 Report Date: 04.20.2020 Date Received: 04.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123297 BTEX by EPA 8021B

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



Certificate of Analysis Summary 658964

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id:

Project Location:

012920043

Contact: Tacoma Morrissey

Date Received in Lab: Wed 04.15.2020 17:01

Report Date: 04.20.2020 09:10

Project Manager: Jessica Kramer

	Lab Id:	658964-0	001	658964-0	02	658964-0	003	658964-0	004	658964-0	005	
Analysis Requested	Field Id:	SS01		SS02		SS03		SS04		SS05		
Analysis Requesieu	Depth:	8- ft										
	Matrix:	SOIL	,	SOIL		SOIL		SOIL	,	SOIL	,	
	Sampled:	04.15.2020	09:50	04.15.2020	09:52	04.15.2020	09:54	04.15.2020	10:08	04.15.2020	10:02	
BTEX by EPA 8021B	Extracted:	04.16.2020	07:22	04.16.2020	07:22	04.16.2020	07:22	04.16.2020	07:22	04.16.2020	07:22	
	Analyzed:	04.16.2020	19:11	04.16.2020	19:32	04.16.2020	19:52	04.16.2020	20:12	04.16.2020	20:33	
	Units/RL:	mg/kg	RL									
Benzene		0.0168	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Toluene		0.195	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Ethylbenzene		0.147	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
m,p-Xylenes		0.760	0.00399	< 0.00399	0.00399	< 0.00399	0.00399	< 0.00399	0.00399	< 0.00400	0.00400	
o-Xylene		0.302	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Total Xylenes		1.06	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Total BTEX		1.42	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	
Chloride by EPA 300	Extracted:	04.16.2020	07:18	04.16.2020	07:18	04.16.2020	07:18	04.16.2020	07:18	04.16.2020	07:18	
	Analyzed:	04.16.2020	11:33	04.16.2020	11:39	04.16.2020	11:44	04.16.2020	11:50	04.16.2020	11:55	
	Units/RL:	mg/kg	RL									
Chloride		38700	251	33700	248	29000	250	21500	251	20500	251	
TPH by SW8015 Mod	Extracted:	04.16.2020	12:00	04.16.2020	12:00	04.16.2020	12:00	04.16.2020	12:00	04.16.2020	12:00	
	Analyzed:	04.16.2020	19:56	04.16.2020	20:17	04.16.2020	20:37	04.16.2020	20:58	04.16.2020	21:18	
	Units/RL:	mg/kg	RL									
Gasoline Range Hydrocarbons (GRO)		< 50.3	50.3	<50.1	50.1	< 50.2	50.2	< 50.1	50.1	<50.2	50.2	
Diesel Range Organics (DRO)		193	50.3	<50.1	50.1	< 50.2	50.2	< 50.1	50.1	<50.2	50.2	
Motor Oil Range Hydrocarbons (MRO)		< 50.3	50.3	< 50.1	50.1	< 50.2	50.2	< 50.1	50.1	< 50.2	50.2	
Total GRO-DRO		193	50.3	< 50.1	50.1	< 50.2	50.2	< 50.1	50.1	< 50.2	50.2	
Total TPH		193	50.3	<50.1	50.1	< 50.2	50.2	< 50.1	50.1	< 50.2	50.2	

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

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

Jessica Vramer



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SS01**

Matrix: Soil Date Received:04.15.2020 17:01

Lab Sample Id: 658964-001

Date Collected: 04.15.2020 09:50

Sample Depth: 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

Analyst:

MAB

Date Prep:

04.16.2020 07:18

% Moisture: Basis:

Wet Weight

Seq Number: 3123309

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	38700	251	mg/kg	04.16.2020 11:33		25

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst:

DTH

Date Prep:

04.16.2020 12:00

Prep Method: SW8015P % Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3		mg/kg	04.16.2020 19:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	193	50.3		mg/kg	04.16.2020 19:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.3	50.3		mg/kg	04.16.2020 19:56	U	1
Total GRO-DRO	PHC628	193	50.3		mg/kg	04.16.2020 19:56		1
Total TPH	PHC635	193	50.3		mg/kg	04.16.2020 19:56		1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	98	%	70-135	04.16.2020 19:56
o-Terphenyl	84-15-1	105	%	70-135	04.16.2020 19:56



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SS01**

Matrix:

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-001

Soil Date Collected: 04.15.2020 09:50

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: MAB

MAB

Date Prep: $04.16.2020\ 07:22$ % Moisture: Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0168	0.00200		mg/kg	04.16.2020 19:11		1
Toluene	108-88-3	0.195	0.00200		mg/kg	04.16.2020 19:11		1
Ethylbenzene	100-41-4	0.147	0.00200		mg/kg	04.16.2020 19:11		1
m,p-Xylenes	179601-23-1	0.760	0.00399		mg/kg	04.16.2020 19:11		1
o-Xylene	95-47-6	0.302	0.00200		mg/kg	04.16.2020 19:11		1
Total Xylenes	1330-20-7	1.06	0.00200		mg/kg	04.16.2020 19:11		1
Total BTEX		1.42	0.00200		mg/kg	04.16.2020 19:11		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	123	%	70-130	04.16.2020 19:11		
1,4-Difluorobenzene		540-36-3	93	%	70-130	04.16.2020 19:11		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SS02** Matrix:

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-002

Soil Date Collected: 04.15.2020 09:52

Sample Depth: 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB MAB

Date Prep:

% Moisture:

04.16.2020 07:18

Basis:

Wet Weight

Seq Number: 3123309

Tech:

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33700	248	mg/kg	04.16.2020 11:39		25

Analytical Method: TPH by SW8015 Mod

DTH

Tech: Analyst:

DTH

Date Prep:

04.16.2020 12:00

Prep Method: SW8015P % Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	04.16.2020 20:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	04.16.2020 20:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	04.16.2020 20:17	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	04.16.2020 20:17	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	04.16.2020 20:17	U	1
Surrogate		Cas Number '	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	98	%	70-135	04.16.2020 20:17
o-Terphenyl	84-15-1	107	%	70-135	04.16.2020 20:17



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SS02**

Matrix:

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-002

Soil Date Collected: 04.15.2020 09:52

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep:

 $04.16.2020\ 07:22$

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	04.16.2020 19:32	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	04.16.2020 19:32	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	04.16.2020 19:32	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	04.16.2020 19:32	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	04.16.2020 19:32	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	04.16.2020 19:32	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	04.16.2020 19:32	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	98	%	70-130	04.16.2020 19:32		
1,4-Difluorobenzene		540-36-3	107	%	70-130	04.16.2020 19:32		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SS03**

Matrix:

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-003

Soil Date Collected: 04.15.2020 09:54

Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB

MAB

Date Prep:

Basis:

Wet Weight

Seq Number: 3123309

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29000	250	mg/kg	04.16.2020 11:44		25

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

04.16.2020 12:00

04.16.2020 07:18

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	04.16.2020 20:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	04.16.2020 20:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	04.16.2020 20:37	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	04.16.2020 20:37	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	04.16.2020 20:37	U	1
Surrogate	C	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SS03** Matrix:

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-003

Soil Date Collected: 04.15.2020 09:54

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

 $04.16.2020\ 07:22$

Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	04.16.2020 19:52	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	04.16.2020 19:52	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	04.16.2020 19:52	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	04.16.2020 19:52	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	04.16.2020 19:52	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	04.16.2020 19:52	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	04.16.2020 19:52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	107	%	70-130	04.16.2020 19:52		
4-Bromofluorobenzene		460-00-4	97	%	70-130	04.16.2020 19:52		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SS04

S04

Matrix: Soil

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-004

Date Collected: 04.15.2020 10:08

Sample Depth: 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

Analyst: MAB

Date Prep:

04.16.2020 07:18

% Moisture: Basis:

Wet Weight

Seq Number: 3123309

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21500	251	mg/kg	04.16.2020 11:50		25

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst: DTH

Ή

Date Prep:

04.16.2020 12:00

% Moisture:

Basis: Wet Weight

Prep Method: SW8015P

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	04.16.2020 20:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	04.16.2020 20:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	04.16.2020 20:58	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	04.16.2020 20:58	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	04.16.2020 20:58	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	102	%	70-135	04.16.2020 20:58
o-Terphenyl	84-15-1	110	%	70-135	04.16.2020 20:58



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id:

SS04

Matrix:

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-004

Soil Date Collected: 04.15.2020 10:08

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

04.16.2020 20:12

Tech: Analyst: MAB

MAB

Date Prep: $04.16.2020\ 07:22$ Basis:

Wet Weight

Seq Number: 3123297

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	04.16.2020 20:12	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	04.16.2020 20:12	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	04.16.2020 20:12	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	04.16.2020 20:12	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	04.16.2020 20:12	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	04.16.2020 20:12	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	04.16.2020 20:12	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	4	160-00-4	98	%	70-130	04.16.2020 20:12		

107

%

70-130

540-36-3



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SS05**

Matrix:

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-005

Soil Date Collected: 04.15.2020 10:02

04.16.2020 12:00

Sample Depth: 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

MAB

Date Prep: 04.16.2020 07:18 % Moisture: Basis:

Wet Weight

Seq Number: 3123309

Tech: Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20500	251	mg/kg	04.16.2020 11:55		25

Analytical Method: TPH by SW8015 Mod

DTH

Tech: Analyst:

DTH

Seq Number: 3123293

Prep Method: SW8015P

% Moisture:

Basis:

Wet Weight

Flag

Cas Number **Parameter** Result RLUnits **Analysis Date** Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 < 50.2 50.2 04.16.2020 21:18 U mg/kg Diesel Range Organics (DRO) C10C28DRO 50.2 04.16.2020 21:18 U < 50.2 1 mg/kg Motor Oil Range Hydrocarbons (MRO) PHCG2835 < 50.2 50.2 04.16.2020 21:18 U mg/kg 1 Total GRO-DRO PHC628 < 50.2 50.2 mg/kg 04.16.2020 21:18 U Total TPH 04.16.2020 21:18 PHC635 50.2 U < 50.2 mg/kg 1

Date Prep:

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	100	%	70-135	04.16.2020 21:18
o-Terphenyl	84-15-1	108	%	70-135	04.16.2020 21:18



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SS05

Matrix:

Soil

Date Received:04.15.2020 17:01

Lab Sample Id: 658964-005

Date Collected: 04.15.2020 10:02

Sample Depth: 8 ft

04.16.2020 20:33

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: MAB

MAB

Date Prep: 04.16.2020 07:22

Basis:

70-130

Wet Weight

Seq Number: 3123297

4-Bromofluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	04.16.2020 20:33	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	04.16.2020 20:33	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	04.16.2020 20:33	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	04.16.2020 20:33	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	04.16.2020 20:33	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	04.16.2020 20:33	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	04.16.2020 20:33	U	1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	5	540-36-3	109	%	70-130	04.16.2020 20:33		

97

460-00-4



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

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



LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: Chloride by EPA 300

3123309 Seq Number:

7701377-1-BLK

Matrix: Solid

E300P Prep Method:

Date Prep: 04.16.2020

LCSD Sample Id: 7701377-1-BSD

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

LCS Sample Id: 7701377-1-BKS

Chloride <10.0 250 255 102 255 102 90-110 0 20 04.16.2020 09:16 mg/kg

Analytical Method: Chloride by EPA 300

MB Sample Id:

Matrix: Soil

Prep Method:

E300P

Seq Number: 3123309 Date Prep: 04.16.2020 Parent Sample Id:

658843-001 S 658843-001 MS Sample Id:

MSD Sample Id: 658843-001 SD

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

20 04.16.2020 09:33 Chloride 863 399 1270 102 1270 102 90-110 0 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3123309

E300P Prep Method:

Matrix: Soil Date Prep: 04.16.2020 MS Sample Id: 658962-009 S MSD Sample Id: 658962-009 SD Parent Sample Id: 658962-009

Spike **RPD Parent** MS MS %RPD Units MSD **MSD** Limite Analysis Flag **Parameter** Result Result Limit Date Amount %Rec Result %Rec Chloride 407 102 20 04.16.2020 10:50 <9.98 399 413 104 90-110 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

3123293

Prep Method:

SW8015P

Flag

Flag

Matrix: Solid Date Prep: 04.16.2020

MB Sample Id: 7701402-1-BLK LCS Sample Id: 7701402-1-BKS LCSD Sample Id: 7701402-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 04.16.2020 12:05 < 50.0 974 97 940 35 1000 94 70-135 4 mg/kg 04.16.2020 12:05 Diesel Range Organics (DRO) 1110 111 1060 70-135 5 35 < 50.0 1000 106 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec %Rec Flag Flag Date Flag %Rec 04.16.2020 12:05 1-Chlorooctane 91 108 107 70-135 % 04.16.2020 12:05 o-Terphenyl 96 108 120 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3123293

Matrix: Solid

Prep Method:

SW8015P

MB Sample Id: 7701402-1-BLK

Parameter

MBResult

Date Prep:

04.16.2020

Analysis

Date

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

04.16.2020 11:45

Flag

Flag



QC Summary 658964

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seg Number: 3123293

Parent Sample Id: 658990-008

SW8015P Prep Method: Matrix: Soil Date Prep: 04.16.2020

MS Sample Id: 658990-008 S MSD Sample Id: 658990-008 SD

RPD **Parent** Spike MS MS Limits %RPD Units Analysis MSD MSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.0 1000 973 97 7 35 04.16.2020 13:28 1040 104 70-135 mg/kg 70-135 0 04.16.2020 13:28 Diesel Range Organics (DRO) < 50.0 1000 1130 113 1130 35 mg/kg 113

MS MS MSD MSD Limits Units Analysis **Surrogate** Flag Flag Date %Rec %Rec 04.16.2020 13:28 1-Chlorooctane 115 119 70-135 % 04.16.2020 13:28 o-Terphenyl 112 118 70-135 %

Analytical Method: BTEX by EPA 8021B

3123297 Seq Number:

Matrix: Solid

7701378-1-BKS

SW5030B Prep Method:

Date Prep: 04.16.2020

LCS Sample Id: LCSD Sample Id: 7701378-1-BSD MB Sample Id: 7701378-1-BLK MB Spike LCS LCS LCSD Limits %RPD **RPD** Units Analysis LCSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date

04.16.2020 12:03 < 0.00200 0.100 0.108 108 0.113 70-130 5 35 Benzene 113 mg/kg 04.16.2020 12:03 Toluene < 0.00200 0.100 0.103 103 0.108 108 70-130 5 35 mg/kg 04.16.2020 12:03 Ethylbenzene 0.100 0.0968 97 0.100 71-129 3 35 < 0.00200 100 mg/kg 04.16.2020 12:03 m,p-Xylenes < 0.00400 0.200 0.199 100 0.206 103 70-135 3 35 mg/kg 04.16.2020 12:03 < 0.00200 0.100 0.102 102 0.105 105 71-133 3 35 o-Xylene mg/kg

Limits MB MB LCS LCS LCSD Units LCSD Analysis Surrogate %Rec Flag %Rec Flag Flag Date %Rec 04.16.2020 12:03 1,4-Difluorobenzene 106 105 105 70-130 % 04.16.2020 12:03 70-130 % 4-Bromofluorobenzene 95 96 92

Analytical Method: BTEX by EPA 8021B

Seg Number: 3123297

658843-001 Parent Sample Id:

Matrix: Soil

MS Sample Id: 658843-001 S

SW5030B Prep Method:

Date Prep: 04.16.2020 MSD Sample Id: 658843-001 SD

RPD Parent Spike MS MS MSD **MSD** Limits %RPD Units Analysis **Parameter** Limit Date Result Amount Result %Rec %Rec Result 04.16.2020 12:44 < 0.00200 0.0998 0.106 106 0.0807 70-130 27 35 Benzene 81 mg/kg 04.16.2020 12:44 70-130 25 35 Toluene < 0.00200 0.0998 0.102 102 0.0796 80 mg/kg Ethylbenzene < 0.00200 0.0998 0.0957 96 0.0764 77 71-129 22 35 04.16.2020 12:44 mg/kg 99 35 04.16.2020 12:44 m,p-Xylenes < 0.00399 0.200 0.197 0.160 80 70-135 2.1 mg/kg < 0.00200 0.0998 0.100 100 0.0838 71-133 18 35 mg/kg 04.16.2020 12:44 o-Xylene 84

MS MS **MSD MSD** Limits Units Analysis Surrogate Flag Flag Date %Rec %Rec 04.16.2020 12:44 1,4-Difluorobenzene 105 104 70-130 % 04.16.2020 12:44 4-Bromofluorobenzene 96 96 70-130 %

= MSD/LCSD Result

Page 39 of 171

Chain of Custody

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

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		1 Sch	Relinquished by: (Signature)	Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	odice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control	Circle Method(Total 200.7 / 6010						2022	4055	5053	5502	5501	Sample Identification	Sample Custody Seals	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	Sampler's Name:	P.O. Number:	Project Number:	Project Name:	one:	City, State ZIP:	Address:	Company Name:	Project Manager:
		V	(Signature)	rge of \$75.00 will be	mature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subconvence of this document and relinquishment of samples and shall not assume any responsibility for any losses or expenses incurred by the client if suchvence will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such	Circle Method(s) and Metal(s) to be analyzed	10 200.8 / 6020:											tification	ils: Yes No	Yes (No.	2		Fatima Smith & Travis Casey	32420	012920043	NASH DEP	(432) 701-2610	Midland, TX 79705	3300 North A St. Bldg 1, Unit 222	LT Environmental, Inc., Permian office	Tacoma Morrissey
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Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 04.15.2020 05.01.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 658964

Temperature Measuring device used: T-NM-007

Sample R	eceipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received	d? 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)?	No	
#18 Water VOC samples have zero headspace?	N/A	

* N/	ha aammiatad f	ar after being	ام بحودالما	i aammiaa mria	r ta placina i	the refrigerator
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Ana	lyst:
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PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 04.15.2020

Checklist reviewed by: Jession Warmer

Date: 04.16.2020



Analytical Report 659391

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 04.22.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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



04.22.2020

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

Reference: XENCO Report No(s): 659391

Nash Deep 18-16 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) 659391. 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. 659391 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 659391

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	04.16.2020 10:47	0 - 12 ft	659391-001
SW05	S	04.17.2020 14:27	0 - 12 ft	659391-002

Received by OCD: 6/18/2020 1:24:31 PM CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

 Project ID:
 012920043
 Report Date:
 04.22.2020

 Work Order Number(s):
 659391
 Date Received:
 04.21.2020

Sample receipt non conformances and comments:

Samples received in bulk containers.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123697 BTEX by EPA 8021B

Samples received in bulk containers.



Certificate of Analysis Summary 659391

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id:

Project Location:

Contact:

012920043

Dan Moir

Date Received in Lab: Tue 04.21.2020 13:50

Report Date: 04.22.2020 13:34

Project Manager: Jessica Kramer

	Lab Id:	659391-0	01	659391-0	002		
Analysis Requested	Field Id:	SW01		SW05	;		
Anatysis Requested	Depth:	0-12 ft		0-12 ft	;		
	Matrix:	SOIL		SOIL			
	Sampled:	04.16.2020	10:47	04.17.2020	14:27		
BTEX by EPA 8021B	Extracted:	04.21.2020	16:08	04.21.2020	16:08		
	Analyzed:	04.21.2020	18:32	04.21.2020	18:52		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00200	0.00200	< 0.00202	0.00202		
Toluene		< 0.00200	0.00200	< 0.00202	0.00202		
Ethylbenzene			0.00200		0.00202		
m,p-Xylenes		< 0.00399	0.00399	< 0.00404	0.00404		
o-Xylene			0.00200		0.00202		
Total Xylenes		< 0.00200	0.00200	< 0.00202	0.00202		
Total BTEX		< 0.00200	0.00200	< 0.00202	0.00202		
Chloride by EPA 300	Extracted:	04.21.2020 16:00		04.21.2020	16:00		
	Analyzed:	04.21.2020	16:52	04.21.2020	17:08		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		454	49.8	493	49.6		
TPH by SW8015 Mod	Extracted:	04.21.2020	15:45	04.21.2020	15:45		
	Analyzed:	04.21.2020	17:16	04.21.2020	17:36		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		< 50.3	50.3	< 50.1	50.1		
Diesel Range Organics (DRO)		<50.3	50.3	< 50.1	50.1		
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	< 50.1	50.1		
Total GRO-DRO		< 50.3	50.3	< 50.1	50.1		
Total TPH		< 50.3	50.3	< 50.1	50.1		

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

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

Jessica Kramer



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW01**

Matrix:

Date Received:04.21.2020 13:50

Lab Sample Id: 659391-001

Soil Date Collected: 04.16.2020 10:47

Sample Depth: 0 - 12 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB

MAB

Date Prep: 04.21.2020 16:00 Basis:

Wet Weight

Seq Number: 3123702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	454	49.8	mg/kg	04.21.2020 16:52		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

04.21.2020 15:45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3		mg/kg	04.21.2020 17:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.3	50.3		mg/kg	04.21.2020 17:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.3	50.3		mg/kg	04.21.2020 17:16	U	1
Total GRO-DRO	PHC628	< 50.3	50.3		mg/kg	04.21.2020 17:16	U	1
Total TPH	PHC635	< 50.3	50.3		mg/kg	04.21.2020 17:16	U	1
Surrogate	•	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	99	%	70-135	04.21.2020 17:16
o-Terphenyl	84-15-1	108	%	70-135	04.21.2020 17:16



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SW01

Soil

Date Received:04.21.2020 13:50

Lab Sample Id: 659391-001

Date Collected: 04.16.2020 10:47

Sample Depth: 0 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech: Analyst: MAB

MAB

Date Prep: 04.21.2020 16:08

Matrix:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	04.21.2020 18:32	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	04.21.2020 18:32	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	04.21.2020 18:32	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	04.21.2020 18:32	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	04.21.2020 18:32	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	04.21.2020 18:32	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	04.21.2020 18:32	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.21.2020 18:32	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.21.2020 18:32	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW05** Matrix:

Date Received:04.21.2020 13:50

Lab Sample Id: 659391-002

Soil Date Collected: 04.17.2020 14:27

04.21.2020 16:00

Sample Depth: 0 - 12 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep:

Basis:

Wet Weight

Seq Number: 3123702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	493	49.6	mg/kg	04.21.2020 17:08		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

04.21.2020 15:45 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	04.21.2020 17:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	04.21.2020 17:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	04.21.2020 17:36	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	04.21.2020 17:36	U	1
Total TPH	PHC635	<50.1	50.1		mg/kg	04.21.2020 17:36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	100	%	70-135	04.21.2020 17:36
o-Terphenyl	84-15-1	107	%	70-135	04.21.2020 17:36



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW05**

Matrix:

Date Received:04.21.2020 13:50

Lab Sample Id: 659391-002

Soil Date Collected: 04.17.2020 14:27

04.21.2020 16:08

Sample Depth: 0 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: Analyst: MAB

MAB Date Prep:

% Moisture:

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	04.21.2020 18:52	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	04.21.2020 18:52	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	04.21.2020 18:52	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404		mg/kg	04.21.2020 18:52	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	04.21.2020 18:52	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	04.21.2020 18:52	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	04.21.2020 18:52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	106	%	70-130	04.21.2020 18:52		
4-Bromofluorobenzene		460-00-4	92	%	70-130	04.21.2020 18:52		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

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

Analysis

Flag

QC Summary 659391

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: Chloride by EPA 300

Seq Number: 3123702

7701739-1-BLK

MB

72.2

Spike

Matrix: Solid

LCS

LCS

LCSD

E300P Prep Method:

Date Prep:

Units

04.21.2020

LCS Sample Id: 7701739-1-BKS LCSD Sample Id: 7701739-1-BSD

LCSD

Limits

Parameter Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 255 102 255 102 90-110 0 20 04.21.2020 16:41 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number: Parent Sample Id:

MB Sample Id:

3123702

659391-001

Matrix: Soil

659391-001 S MS Sample Id:

Prep Method: Date Prep:

RPD

%RPD

E300P 04.21.2020

MSD Sample Id: 659391-001 SD

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

20 04.21.2020 16:58 Chloride 454 200 656 101 652 99 90-110 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number: Parent Sample Id: 3123702

659405-009

Matrix: Soil

200

Prep Method:

E300P

Date Prep: 04.21.2020

mg/kg

659405-009 S MSD Sample Id: 659405-009 SD

Spike **RPD Parent** MS MS %RPD Units MSD **MSD** Limite Analysis Flag **Parameter** Result Result Limit Date Amount %Rec Result %Rec Chloride 103 0 20 04.21.2020 18:14

Analytical Method: TPH by SW8015 Mod

Seq Number:

3123744

Matrix: Solid

Prep Method: Date Prep:

SW8015P

04.21.2020

MB Sample Id: LCS Sample Id: 7701768-1-BKS LCSD Sample Id: 7701768-1-BSD

MS Sample Id:

278

7701768-1-BLK

2.77

102

90-110

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 04.21.2020 14:57 < 50.0 35 1000 853 85 862 86 70-135 mg/kg 04.21.2020 14:57 Diesel Range Organics (DRO) 953 95 964 70-135 35 < 50.0 1000 96 1 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec Flag %Rec Flag Flag Date %Rec 04.21.2020 14:57 1-Chlorooctane 101 114 113 70-135 % 04.21.2020 14:57 o-Terphenyl 111 113 113 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3123744

Matrix: Solid

Prep Method:

SW8015P

Date Prep: 04.21.2020

Units

MB Sample Id: 7701768-1-BLK

MB**Parameter**

Result

Analysis

Date

Flag

Flag

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

04.21.2020 14:36

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

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

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

LCS = Laboratory Control Sample = Parent Result

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

Flag

Flag

Flag



QC Summary 659391

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3123744

Parent Sample Id: 659295-002

Trush Beep To To

Prep Method: SW8015P
Matrix: Soil Date Prep: 04.21.2020

MS Sample Id: 659295-002 S MSD Sample Id: 659295-002 SD

RPD **Parent** Spike MS MS Limits %RPD Units Analysis MSD **MSD Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.2 1000 919 92 35 04.21.2020 16:35 942 94 70-135 2. mg/kg 104 1070 70-135 3 04.21.2020 16:35 Diesel Range Organics (DRO) < 50.2 1000 1040 107 35 mg/kg

MS MS MSD MSD Limits Units Analysis **Surrogate** Flag Flag Date %Rec %Rec 04.21.2020 16:35 1-Chlorooctane 121 124 70-135 % 04.21.2020 16:35 o-Terphenyl 122 125 70-135 %

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123697

MB Sample Id: 7701736-1-BLK

Prep Method: SW5035A

Matrix: Solid Date Prep: 04.21.2020

Matrix: Solid Date Prep: 04.21.2020 LCS Sample Id: 7701736-1-BKS LCSD Sample Id: 7701736-1-BSD

MB Spike LCS LCS LCSD Limits %RPD **RPD** Units Analysis LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date 04.21.2020 16:50 < 0.00200 0.100 0.109 109 0.105 70-130 35 Benzene 105 4 mg/kg 04.21.2020 16:50 Toluene < 0.00200 0.100 0.104 104 0.0996 100 70-130 4 35 mg/kg 04.21.2020 16:50 Ethylbenzene 0.100 0.0963 96 0.0925 93 71-129 4 35 < 0.00200 mg/kg 04.21.2020 16:50 m,p-Xylenes < 0.00400 0.200 0.196 98 0.189 95 70-135 4 35 mg/kg 04.21.2020 16:50 < 0.00200 0.100 0.100 100 0.0968 97 71-133 3 35 o-Xylene mg/kg

Limits MB MB LCS LCS LCSD Units LCSD Analysis Surrogate %Rec Flag %Rec Flag %Rec Flag Date 04.21.2020 16:50 1,4-Difluorobenzene 106 104 104 70-130 % 04.21.2020 16:50 70-130 % 4-Bromofluorobenzene 95 92 91

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123697

Parent Sample Id: 659391-001

Matrix: Soil
MS Sample Id: 659391-001 S

Date Prep: 04.21.2020

SW5035A

MSD Sample Id: 659391-001 SD

Prep Method:

RPD Parent Spike MS MS MSD **MSD** Limits %RPD Units Analysis **Parameter** Limit Date Result Amount Result %Rec %Rec Result 04.21.2020 17:31 < 0.00200 0.0998 0.0997 100 0.103 70-130 3 35 Benzene 103 mg/kg 04.21.2020 17:31 70-130 35 Toluene < 0.00200 0.0998 0.0969 97 0.0999 100 3 mg/kg Ethylbenzene < 0.00200 0.0998 0.0919 92 0.0938 94 71-129 2 35 04.21.2020 17:31 mg/kg 95 2 35 04.21.2020 17:31 m,p-Xylenes < 0.00399 0.200 0.190 0.193 97 70-135 mg/kg < 0.00200 0.0998 0.0954 96 0.0965 97 71-133 35 mg/kg 04.21.2020 17:31 o-Xylene

MS MS **MSD MSD** Limits Units Analysis Surrogate Flag Flag %Rec %Rec Date 04.21.2020 17:31 1,4-Difluorobenzene 104 103 70-130 % 04.21.2020 17:31 4-Bromofluorobenzene 95 95 70-130 %

= MSD/LCSD Result

Relinquished by: (Signature)

Received by: (Signature)

0

20 13:5 Date/Time 1631 / 245.1 / 7470 / 7471 : Hg



Analytical Report 659427

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 04.23.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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



04.23.2020

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

Reference: XENCO Report No(s): 659427

Nash Deep 18-16 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) 659427. 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. 659427 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 659427

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample IdMatrixDate CollectedSample DepthLab Sample IdSW02S04.21.2020 14:580 - 8 ft659427-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

Project ID: 012920043 Work Order Number(s): 659427 Report Date: 04.23.2020 Date Received: 04.21.2020

Sample receipt non conformances and comments:

Samples received in bulk containers.

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 659427

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id:

Project Location:

Contact:

012920043

Dan Moir

Date Received in Lab: Tue 04.21.2020 16:50

Report Date: 04.23.2020 11:31

Project Manager: Jessica Kramer

	Lab Id:	659427-001				
Analysis Requested	Field Id:	SW02				
Analysis Requesieu	Depth:	0-8 ft				
	Matrix:	SOIL				
	Sampled:	04.21.2020 14:58				
BTEX by EPA 8021B	Extracted:	04.22.2020 14:57				
	Analyzed:	04.22.2020 16:12				
	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				
Chloride by EPA 300	Extracted:	04.21.2020 17:21				
	Analyzed:	04.21.2020 21:27				
	Units/RL:	mg/kg RL				
Chloride		233 49.8				
TPH by SW8015 Mod	Extracted:	04.22.2020 17:30				
	Analyzed:	04.22.2020 19:08				
	Units/RL:	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8				
Diesel Range Organics (DRO)		<49.8 49.8				
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	_		_	
Total GRO-DRO		<49.8 49.8				
Total TPH		<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.

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

Jessica Kramer

Project Manager



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SW02

Matrix:

Date Prep:

Soil

Date Received:04.21.2020 16:50

Lab Sample Id: 659427-001

Date Collected: 04.21.2020 14:58

Sample Depth: 0 - 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB

MAB

04.21.2020 17:21

Basis:

Wet Weight

Seq Number: 3123703

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	233	49.8	mg/kg	04.21.2020 21:27		

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:
Analyst:

DTH DTH

Date Prep: 04.22.2020 17:30

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8		mg/kg	04.22.2020 19:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8		mg/kg	04.22.2020 19:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8		mg/kg	04.22.2020 19:08	U	1
Total GRO-DRO	PHC628	<49.8	49.8		mg/kg	04.22.2020 19:08	U	1
Total TPH	PHC635	<49.8	49.8		mg/kg	04.22.2020 19:08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	113	%	70-135	04.22.2020 19:08		
o-Terphenyl		84-15-1	122	%	70-135	04.22.2020 19:08		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SW02

Matrix:

Date Received:04.21.2020 16:50

Lab Sample Id: 659427-001

Soil Date Collected: 04.21.2020 14:58

Sample Depth: 0 - 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

% Moisture:

Tech: Analyst: MAB

MAB

Date Prep: 04.22.2020 14:57 Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	04.22.2020 16:12	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	04.22.2020 16:12	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	04.22.2020 16:12	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	04.22.2020 16:12	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	04.22.2020 16:12	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	04.22.2020 16:12	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	04.22.2020 16:12	U	1
Surrogate	C	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1 Promofluorobonzono	4.	60.00.4	00	0/-	70 120	04 22 2020 16:12		

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	04.22.2020 16:12	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.22.2020 16:12	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

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



LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: Chloride by EPA 300

Seq Number: 3123703

7701741-1-BLK

Matrix: Solid

LCS Sample Id: 7701741-1-BKS

Date Prep:

E300P

Prep Method: 04.21.2020

LCSD Sample Id: 7701741-1-BSD Units

MB Sample Id: **Parameter**

MB

LCS LCS

LCSD LCSD Result %Rec Limits %RPD

RPD Limit 20

Analysis Date

Chloride

Result Amount <10.0

Result %Rec 255 102

255

102 90-110

0

mg/kg

mg/kg

04.21.2020 19:42

Flag

Page 62 of 171

Analytical Method: Chloride by EPA 300

3123703 659422-001

Matrix: Soil

103

Prep Method: Date Prep:

20

E300P 04.21.2020

200

Spike

200

Amount

Spike

250

659422-001 S MS Sample Id:

MSD Sample Id: 659422-001 SD

Parameter

Chloride

Seq Number:

Parent Sample Id:

Parent Spike Result Amount 56.1

MS MS Result %Rec

263

MSD Result

261

MSD Limits %Rec 102

90-110

%RPD RPD Limit

1

Units Analysis

Flag Date 04.21.2020 19:58

Analytical Method: Chloride by EPA 300

Parent Sample Id:

3123703

Prep Method:

E300P

387

659426-002

Matrix: Soil MS Sample Id: 659426-002 S

99

Date Prep: 04.21.2020

MSD Sample Id: 659426-002 SD

04.21.2020 21:15

Parameter

Seq Number:

Parent Result

MS MS Result %Rec

584

MSD Result 582

MSD Limite %Rec 98

RPD %RPD Limit

0

Units

Analysis Flag Date

Chloride

Analytical Method: TPH by SW8015 Mod Seq Number:

3123877

Matrix: Solid

90-110

SW8015P Prep Method:

mg/kg

MB Sample Id:

7701870-1-BLK

LCS Sample Id:

7701870-1-BKS

Date Prep: LCSD Sample Id: 7701870-1-BSD

04.22.2020

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

Diesel Range Organics (DRO)

1000 1000

RPD

20

Analysis

Gasoline Range Hydrocarbons (GRO) < 50.0 90 707 71 70-135 35 896 24 mg/kg 1010 101 777 78 70-135 35 < 50.0 26 mg/kg

MBMB

83

04.22.2020 15:42

1-Chlorooctane

Analytical Method: TPH by SW8015 Mod

3123877

101

Flag

70-135

70-135

04.22.2020 15:42

Surrogate

o-Terphenyl

%Rec 78

%Rec Flag 117

LCS LCS Flag

LCSD

%Rec

89

76

LCSD Limits Units

Analysis Date

04.22.2020 15:42

04.22.2020 15:42

MB Sample Id: 7701870-1-BLK

Matrix: Solid

Prep Method:

Date Prep:

SW8015P 04.22.2020

Flag

Flag

Parameter

Seq Number:

MBResult < 50.0

Units

mg/kg

%

%

Analysis

Date 04.22.2020 13:30

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

Motor Oil Range Hydrocarbons (MRO)

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

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

Flag



QC Summary 659427

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3123877

Parent Sample Id: 659425-003

Prep Method: SW8015P Matrix: Soil Date Prep: 04.22.2020

MS Sample Id: 659425-003 S MSD Sample Id: 659425-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Gasoline Range Hydrocarbons (GRO)	< 50.2	1000	876	88	890	89	70-135	2	35	mg/kg	04.22.2020 17:24
Diesel Range Organics (DRO)	< 50.2	1000	970	97	988	99	70-135	2	35	mg/kg	04.22.2020 17:24

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		114		70-135	%	04.22.2020 17:24
o-Terphenyl	117		120		70-135	%	04.22.2020 17:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123852

MB Sample Id: 7701799-1-BLK Matrix: Solid

LCS Sample Id: 7701799-1-BKS

Prep Method:

SW5035A

04.22.2020

Date Prep: LCSD Sample Id: 7701799-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0997	100	0.109	109	70-130	9	35	mg/kg	04.22.2020 14:29	
Toluene	< 0.00200	0.100	0.0941	94	0.104	104	70-130	10	35	mg/kg	04.22.2020 14:29	
Ethylbenzene	< 0.00200	0.100	0.0882	88	0.0975	98	71-129	10	35	mg/kg	04.22.2020 14:29	
m,p-Xylenes	< 0.00400	0.200	0.181	91	0.201	101	70-135	10	35	mg/kg	04.22.2020 14:29	
o-Xylene	< 0.00200	0.100	0.0912	91	0.102	102	71-133	11	35	mg/kg	04.22.2020 14:29	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re		_	imits	Units	Analysis Date	
1,4-Difluorobenzene	107		1	04		105		70)-130	%	04.22.2020 14:29	

Analytical Method: BTEX by EPA 8021B

93

Seq Number: 3123852

4-Bromofluorobenzene

Parent Sample Id: 659427-001 Matrix: Soil

92

MS Sample Id: 659427-001 S

90

SW5035A Prep Method: Date Prep:

70-130

04.22.2020

04.22.2020 14:29

Flag

MSD Sample Id: 659427-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	I
Benzene	< 0.00200	0.100	0.0882	88	0.0954	94	70-130	8	35	mg/kg	04.22.2020 21:39	
Toluene	< 0.00200	0.100	0.0972	97	0.0905	90	70-130	7	35	mg/kg	04.22.2020 21:39	
Ethylbenzene	< 0.00200	0.100	0.0892	89	0.0834	83	71-129	7	35	mg/kg	04.22.2020 21:39	
m,p-Xylenes	< 0.00401	0.200	0.186	93	0.170	84	70-135	9	35	mg/kg	04.22.2020 21:39	
o-Xylene	< 0.00200	0.100	0.0862	86	0.0867	86	71-133	1	35	mg/kg	04.22.2020 21:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		105		70-130	%	04.22.2020 21:39
4-Bromofluorobenzene	93		96		70-130	%	04.22.2020 21:39

None: NO

MeOH: Me

Preservative Codes

Work Order No: USGLIZT

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Page

으

Work Order Comments

ADaPT

Other

TAT starts the day recevied by the lab, if

received by 4:00pm

Sample Comments

Zn Acetate+ NaOH: Zn

NaOH: Na HCL: HL H2S04: H2 HNO3: HN

Received by: (Signature)

11/2/120

6:

Date/Time

Revised Date 022619 Rev. 2019.1

Ag

SiO2 Na Sr Tl Sn U V Zn

1631 / 245.1 / 7470 / 7471 : Hg

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.21.2020 04.50.00 PM

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Work Order #: 659427

Temperature Measuring device used: T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.2	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

* Must be completed for	after-hours deliver	y of samples	prior to placii	ng in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Elizabeth McClellan

Date: 04.21.2020

Checklist reviewed by: Jessica Vramer

Date: 04.23.2020



Analytical Report 659891

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 04.28.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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



04.28.2020

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

Reference: XENCO Report No(s): 659891

Nash Deep 18-16

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 659891. 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. 659891 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 659891

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW03	S	04.27.2020 10:07	0 - 8 ft	659891-001
SW04	S	04.27.2020 09:50	0 - 8 ft	659891-002
SW06	S	04.27.2020 10:55	0 - 8 ft	659891-003

Page 69 of 171 **CASE NARRATIVE**



Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

Project ID: Report Date: 04.28.2020 012920043 Work Order Number(s): 659891 Date Received: 04.27.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 659891

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id: Contact: 012920043

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Mon 04.27.2020 16:10

Report Date: 04.28.2020 12:22

Project Manager: Jessica Kramer

	Lab Id:	659891-0	001	659891-0	02	659891-0	003		
Analysis Requested	Field Id:	SW03	3	SW04		SW06			
Analysis Requested	Depth:	0-8 ft		0-8 ft		0-8 ft			
	Matrix:	SOIL	,	SOIL		SOIL			
	Sampled:	04.27.2020	10:07	04.27.2020	09:50	04.27.2020	10:55		
BTEX by EPA 8021B	Extracted:	04.27.2020	17:40	04.27.2020	17:40	04.27.2020	17:40		
	Analyzed:	04.28.2020	01:36	04.28.2020	01:57	04.28.2020	02:18		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00200	0.00200	< 0.00199	0.00199	< 0.00201	0.00201		
Toluene		< 0.00200	0.00200	< 0.00199	0.00199	< 0.00201	0.00201		
Ethylbenzene		< 0.00200	0.00200	< 0.00199	0.00199	< 0.00201	0.00201		
m,p-Xylenes		< 0.00401	0.00401	< 0.00398	0.00398	< 0.00402	0.00402		
o-Xylene		< 0.00200	0.00200	< 0.00199	0.00199	< 0.00201	0.00201		
Total Xylenes		< 0.00200	0.00200	< 0.00199	0.00199	< 0.00201	0.00201		
Total BTEX		< 0.00200	0.00200	< 0.00199	0.00199	< 0.00201	0.00201		
Chloride by EPA 300	Extracted:	04.27.2020	17:04	04.27.2020	17:04	04.27.2020	17:04		
	Analyzed:	04.27.2020	18:38	04.27.2020	18:43	04.27.2020	18:49		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		603	49.6	112	50.1	81.1	50.0		
TPH by SW8015 Mod	Extracted:	04.27.2020	17:00	04.27.2020	17:00	04.27.2020	17:00		
	Analyzed:	04.27.2020	19:04	04.27.2020	19:24	04.27.2020	19:44		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		< 50.1	50.1	< 50.2	50.2	<49.9	49.9		
Diesel Range Organics (DRO)		< 50.1	50.1	< 50.2	50.2	<49.9	49.9		
Motor Oil Range Hydrocarbons (MRO)		< 50.1	50.1	< 50.2	50.2	<49.9	49.9		
Total GRO-DRO		< 50.1	50.1	< 50.2	50.2	<49.9	49.9		
Total TPH		< 50.1	50.1	< 50.2	50.2	<49.9	49.9		

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.

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

Jessica Vramer



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW03**

Matrix:

Date Received:04.27.2020 16:10

Lab Sample Id: 659891-001

Soil Date Collected: 04.27.2020 10:07

Sample Depth: 0 - 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

MAB

MAB Analyst:

Date Prep: 04.27.2020 17:04 Basis:

Wet Weight

Seq Number: 3124306

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	603	49.6	mg/kg	04.27.2020 18:38		5

Analytical Method: TPH by SW8015 Mod

DTH

Tech:

Analyst: DTH

Date Prep:

04.27.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	04.27.2020 19:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	04.27.2020 19:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	04.27.2020 19:04	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	04.27.2020 19:04	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	04.27.2020 19:04	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	103	%	70-135	04.27.2020 19:04
o-Terphenyl	84-15-1	112	%	70-135	04.27.2020 19:04



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW03**

Matrix:

Soil

Lab Sample Id: 659891-001

Date Collected: 04.27.2020 10:07

Date Received:04.27.2020 16:10

Sample Depth: 0 - 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech:

MAB

Date Prep:

04.27.2020 17:40

Basis:

Wet Weight

Analyst: MAB Seq Number: 3124302

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	04.28.2020 01:36	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	04.28.2020 01:36	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	04.28.2020 01:36	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	04.28.2020 01:36	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	04.28.2020 01:36	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	04.28.2020 01:36	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	04.28.2020 01:36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	104	%	70-130	04.28.2020 01:36		
1,4-Difluorobenzene		540-36-3	114	%	70-130	04.28.2020 01:36		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SW04

Matrix: Soil

Date Received:04.27.2020 16:10

Lab Sample Id: 659891-002

Date Collected: 04.27.2020 09:50

Sample Depth: 0 - 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:
Analyst:

MAB

MAB

Date Prep: 04.27.2020 17:04

Basis:

Wet Weight

Seq Number: 3124306

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	50.1	mg/kg	04.27.2020 18:43		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

04.27.2020 17:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	04.27.2020 19:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	04.27.2020 19:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	04.27.2020 19:24	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	04.27.2020 19:24	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	04.27.2020 19:24	U	1
Surrogate	•	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW04**

Matrix:

Date Prep:

Date Received:04.27.2020 16:10

Lab Sample Id: 659891-002

Soil Date Collected: 04.27.2020 09:50

Sample Depth: 0 - 8 ft

04.28.2020 01:57

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: Analyst: MAB

MAB

04.27.2020 17:40

% Moisture: Basis:

Wet Weight

Seq Number: 3124302

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	04.28.2020 01:57	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	04.28.2020 01:57	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	04.28.2020 01:57	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	04.28.2020 01:57	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	04.28.2020 01:57	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	04.28.2020 01:57	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	04.28.2020 01:57	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	4	160-00-4	105	%	70-130	04.28.2020 01:57		

113

%

70-130

540-36-3



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SW06

Matrix: Soil

Date Received:04.27.2020 16:10

Lab Sample Id: 659891-003

Date Collected: 04.27.2020 10:55

Sample Depth: 0 - 8 ft

Analytical Method: Chloride by EPA 300

MAB

Prep Method: E300P

% Moisture:

Analyst: MAB Seq Number: 3124306

Tech:

Date Prep: 04.27.2020 17:04

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.1	50.0	mg/kg	04.27.2020 18:49		5

Analytical Method: TPH by SW8015 Mod

DTH

Tech: DT

Analyst:

DTH

Date Prep:

04.27.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number Result		sult RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	04.27.2020 19:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	04.27.2020 19:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	04.27.2020 19:44	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	04.27.2020 19:44	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	04.27.2020 19:44	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	98	%	70-135	04.27.2020 19:44
o-Terphenyl	84-15-1	107	%	70-135	04.27.2020 19:44



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW06**

Matrix: Soil Date Received:04.27.2020 16:10

Lab Sample Id: 659891-003

Date Collected: 04.27.2020 10:55

Sample Depth: 0 - 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

04.27.2020 17:40

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	04.28.2020 02:18	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	04.28.2020 02:18	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	04.28.2020 02:18	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	04.28.2020 02:18	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	04.28.2020 02:18	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	04.28.2020 02:18	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	04.28.2020 02:18	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	
	_							

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	F
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.28.2020 02:18	
4-Bromofluorobenzene	460-00-4	106	%	70-130	04.28.2020 02:18	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

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

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Flag

Flag

Flag

QC Summary 659891



LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: Chloride by EPA 300

Seq Number: 3124306

Matrix: Solid

MB

E300P Prep Method:

04.27.2020 Date Prep:

Units

7702149-1-BLK LCS Sample Id: 7702149-1-BKS LCSD Sample Id: 7702149-1-BSD MB Sample Id: LCS

LCS

Spike LCSD LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 250 100 250 90-110 0 20 04.27.2020 16:26 100 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3124306

Matrix: Soil

Prep Method: Date Prep:

RPD

%RPD

Limits

E300P 04.27.2020

Analysis

659876-001 Parent Sample Id:

659876-001 S MS Sample Id:

MSD Sample Id: 659876-001 SD

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

20 04.27.2020 16:43 Chloride 1230 201 1410 90 1420 95 90-110 1 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3124306

Matrix: Soil

Prep Method:

E300P

Parent Sample Id:

659890-002

MS Sample Id: 659890-002 S Date Prep:

04.27.2020 MSD Sample Id: 659890-002 SD

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

Chloride 330 199 0 20 04.27.2020 17:59 548 110 548 110 90-110 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

3124331

Matrix: Solid

Prep Method:

SW8015P

MB Sample Id:

7702173-1-BLK

LCS Sample Id: 7702173-1-BKS Date Prep: 04.27.2020

LCSD Sample Id: 7702173-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 04.27.2020 14:22 < 50.0 91 35 1000 914 898 90 70-135 2 mg/kg 04.27.2020 14:22 Diesel Range Organics (DRO) 1020 102 998 70-135 2 35 < 50.0 1000 100 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec %Rec Flag Flag Date Flag %Rec 04.27.2020 14:22 1-Chlorooctane 86 130 131 70-135 % 04.27.2020 14:22 o-Terphenyl 91 116 132 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3124331

Matrix: Solid

Prep Method:

SW8015P

04.27.2020

MB Sample Id: 7702173-1-BLK

Parameter

MBResult

Units

Date Prep:

Analysis

Date

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

04.27.2020 12:40

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

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

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

LCS = Laboratory Control Sample = Parent Result

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

Flag

Flag

Flag



QC Summary 659891

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124331

Parent Sample Id:

659819-002

Matrix: Soil 659819-002 S

SW8015P Prep Method:

04.27.2020 Date Prep:

MSD Sample Id: 659819-002 SD

MS RPD Parent Spike MS MSD MSD Limits %RPD Units Analysis **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.3 1010 812 80 35 04.27.2020 14:01 864 86 70-135 6 mg/kg 04.27.2020 14:01 1010 877 971 70-135 35 mg/kg Diesel Range Organics (DRO) < 50.3 87 97 10

MS Sample Id:

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		105		70-135	%	04.27.2020 14:01
o-Terphenyl	102		109		70-135	%	04.27.2020 14:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124302 Matrix: Solid

Prep Method:

SW5035A

Date Prep: 04.27.2020

7702139-1-BLK LCS Sample Id: 7702139-1-BKS LCSD Sample Id: 7702139-1-BSD MB Sample Id:

Parameter	MB	Spike	LCS	LCS	LCSD	LCSD	Limits	%RPD	RPD	Units	Analysis
rarameter	Result	Amount	Result	%Rec	Result	%Rec			Limit		Date
Benzene	< 0.00200	0.100	0.114	114	0.123	123	70-130	8	35	mg/kg	04.27.2020 22:02
Toluene	< 0.00200	0.100	0.101	101	0.112	112	70-130	10	35	mg/kg	04.27.2020 22:02
Ethylbenzene	< 0.00200	0.100	0.0950	95	0.104	104	71-129	9	35	mg/kg	04.27.2020 22:02
m,p-Xylenes	< 0.00400	0.200	0.185	93	0.201	101	70-135	8	35	mg/kg	04.27.2020 22:02
o-Xylene	< 0.00200	0.100	0.0953	95	0.105	105	71-133	10	35	mg/kg	04.27.2020 22:02

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		108		111		70-130	%	04.27.2020 22:02
4-Bromofluorobenzene	106		96		97		70-130	%	04.27.2020 22:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124302 Parent Sample Id:

659820-011

Matrix: Soil

Prep Method: Date Prep:

SW5035A

04.27.2020

MS Sample Id: 659820-011 S MSD Sample Id: 659820-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	F
Benzene	< 0.00200	0.0998	0.130	130	0.129	129	70-130	1	35	mg/kg	04.27.2020 22:44	
Toluene	< 0.00200	0.0998	0.114	114	0.114	114	70-130	0	35	mg/kg	04.27.2020 22:44	
Ethylbenzene	< 0.00200	0.0998	0.107	107	0.106	106	71-129	1	35	mg/kg	04.27.2020 22:44	
m,p-Xylenes	< 0.00399	0.200	0.207	104	0.205	103	70-135	1	35	mg/kg	04.27.2020 22:44	
o-Xylene	< 0.00200	0.0998	0.107	107	0.105	105	71-133	2	35	mg/kg	04.27.2020 22:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		109		70-130	%	04.27.2020 22:44
4-Bromofluorobenzene	98		100		70-130	%	04.27.2020 22:44

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

Work Order No: US989

Project Manager: Dan M	More	Bill to: (if different)	PROGRESAZ (480) 355-0900 Allanta (3-A (7/0) 449-8800 ampairt (813) 620-2000 West P	2000 West Palm Beach, FL (561) 689-6701	ZWW	Work Order Comments
LTENVI	mental Inc Permian Office		0		Program: UST/PST PRP	Program: UST/PST PRP Brownfields RRC Superfund
	A St	Address:	3104 E Greene	ie et	State of Project:	
-	75		000		Reporting:Level II Level III	Reporting:Level II Level III PST/UST TRRP Level IV
(432)	33	100	Henvicom, dmoire	Heni	Deliverables: EDD	ADaPT Other:
Project Name: NOSIO	North Deep 18-16	Turn Around		ANALYSIS REQUEST	EST	Preservative Codes
	Rou	e Pres.				МеОН: Ме
Course 1)			None: NO
Fatinh		ate:	0.0			HNO3: HN
111	pill date Quote #:)			H2S04: H2
SAMPLE RECEIPT T	Temp Blank: (es) No Wet Ice:	No No	121			HCL: HL
Temperature (°C):	7 Thermometer ID		80			NaOH: Na
B	No	tea)=			Zn Acetate+ NaOH: Zn
Cooler Custody Seals: Yes	(N/A Correction Factor:	100	(1			TAT starts the day recevied by the lab, if
Sample Custody Seals: Yes	N/A Total Containers:	er o	X			received by 4:00pm
ID Sample Identification	Matrix Sampled Sampled	Depth	BTE			Sample Comments
SW03	R 4/27/20 1007	0-8' 1	X			gypsum
NOMS	R 4/23/20 0950	0-81	X X			dypsum
	R 4/27/20 1055	0-81	X X			dypsum
	5					
1						
			<i>/</i>			
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	8RCRA TCLP / SPL	Texas 11 8RCRA	Al Sb As Ba Be B Cd Sb As Ba Be Cd Cr Co	Ca Cr Co Cu Fe Pb Cu Pb Mn Mo Ni Se	Mg Mn Mo Ni K Se Ag SiO2 Ag TI U	Na Sr Ti Sn U V Zn 1631/245.1/7470/7471:Hg
Notice: Signature of this document and relinqu	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	order from client company t	o Xenco, its affiliates and sub	contractors. It assigns standard terms and conditions	s and conditions	
of Xenco. A minimum charge of \$75.00 will be	of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ch sample submitted to Xenc	o, but not analyzed. These ter	ms will be enforced unless previously	negotiated.	
Relinquished by: (Signature)	Received by; (Signature)		Date/Time R	Relinquished by: (Signature)	Received by: (Signature)	nature) Date/Time
tate Va	PL C	412:	27/20 16:02			
	(4			
			6			

Revised Date 022619 Rev. 2019.1

Analytical Report 660036

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 04.29.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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



04.29.2020

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

Reference: XENCO Report No(s): 660036

Nash Deep 18-16 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) 660036. 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. 660036 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 660036

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample IdMatrixDate CollectedSample DepthLab Sample IdSW07S04.28.2020 14:460 - 8 ft660036-001

Page 84 of 171

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

Project ID: Report Date: 04.29.2020 012920043 Work Order Number(s): 660036 Date Received: 04.28.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Received by OCD: 6/18/2020 1:24:31 PM XENCO

Certificate of Analysis Summary 660036

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id:

Project Location:

Contact:

012920043

Dan Moir

Date Received in Lab: Tue 04.28.2020 16:28

Report Date: 04.29.2020 12:52

Project Manager: Jessica Kramer

	Lab Id:	660036-001			
Analysis Requested	Field Id:	SW07			
Anaiysis Kequesiea	Depth:	0-8 ft			
	Matrix:	SOIL			
	Sampled:	04.28.2020 14:46			
BTEX by EPA 8021B	Extracted:	04.28.2020 18:00			
	Analyzed:	04.28.2020 23:59			
	Units/RL:	mg/kg RL			
Benzene		<0.00198 0.00198			
Toluene		<0.00198 0.00198			
Ethylbenzene		<0.00198 0.00198			
m,p-Xylenes		< 0.00397 0.00397			
o-Xylene		< 0.00198 0.00198			
Total Xylenes		< 0.00198 0.00198			
Total BTEX		< 0.00198 0.00198			
Chloride by EPA 300	Extracted:	04.28.2020 17:30			
	Analyzed:	04.28.2020 19:58			
	Units/RL:	mg/kg RL			
Chloride		348 49.9			
TPH by SW8015 Mod	Extracted:	04.28.2020 17:30			
	Analyzed:	04.29.2020 02:07			
	Units/RL:	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2			
Diesel Range Organics (DRO)		<50.2 50.2			
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2			
Total GRO-DRO		<50.2 50.2			
Total TPH		<50.2 50.2			

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

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

Jessica Kramer

Project Manager



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW07**

Matrix:

Soil

Date Received:04.28.2020 16:28

Lab Sample Id: 660036-001

Date Collected: 04.28.2020 14:46

Sample Depth: 0 - 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

MAB

MAB Analyst:

Date Prep: 04.28.2020 17:30 Basis:

Wet Weight

Seq Number: 3124455

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	348	49.9	mg/kg	04.28.2020 19:58		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

04.28.2020 17:30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	04.29.2020 02:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	04.29.2020 02:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	04.29.2020 02:07	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	04.29.2020 02:07	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	04.29.2020 02:07	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	97	%	70-135	04.29.2020 02:07
o-Terphenyl	84-15-1	102	%	70-135	04.29.2020 02:07



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW07**

Matrix:

Date Received:04.28.2020 16:28

Lab Sample Id: 660036-001

Soil Date Collected: 04.28.2020 14:46

Sample Depth: 0 - 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Basis:

Wet Weight

Analyst: Seq Number: 3124449

MAB

Date Prep: 04.28.2020 18:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198	mg/kg	04.28.2020 23:59	U	1
Toluene	108-88-3	< 0.00198	0.00198	mg/kg	04.28.2020 23:59	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198	mg/kg	04.28.2020 23:59	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397	mg/kg	04.28.2020 23:59	U	1
o-Xylene	95-47-6	< 0.00198	0.00198	mg/kg	04.28.2020 23:59	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198	mg/kg	04.28.2020 23:59	U	1
Total BTEX		< 0.00198	0.00198	mg/kg	04.28.2020 23:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	04.28.2020 23:59	
1,4-Difluorobenzene	540-36-3	122	%	70-130	04.28.2020 23:59	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS

Matrix Spike

MSD: Matrix Spike Duplicate

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

Flag

QC Summary 660036



LT Environmental, Inc.

Nash Deep 18-16

254

Analytical Method: Chloride by EPA 300

Seq Number: 3124455

7702278-1-BLK

Matrix: Solid LCS Sample Id: 7702278-1-BKS

E300P Prep Method:

Date Prep: 04.28.2020

LCSD Sample Id: 7702278-1-BSD

LCS RPD MB Spike LCS Limits %RPD Units LCSD LCSD **Parameter**

Chloride

MB Sample Id:

Result Amount <10.0 250 Result %Rec 253 101 Result %Rec

0

%RPD

Limit 20

Analysis Date

04.28.2020 18:46 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3124455

Matrix: Soil

Prep Method: Date Prep: 04.28.2020

RPD

E300P

Parent Sample Id:

660027-001

660027-001 S MS Sample Id:

MSD Sample Id:

660027-001 SD

04.28.2020 19:02

Parameter

Parent Spike Result Amount 48.4 200

MS MS Result %Rec 257 104

MSD Result 258

%Rec 105 90-110

Limits

MSD

102 90-110

Limit 20 0

Units

Analysis Flag Date

Chloride

Seq Number:

3124455

Analytical Method: Chloride by EPA 300 Matrix: Soil

E300P Prep Method:

04.28.2020

Parent Sample Id:

660037-003

MS Sample Id: 660037-003 S

100

Date Prep: MSD Sample Id: 660037-003 SD

mg/kg

Parameter

Spike **Parent** Result Amount

1130

MS MS Result %Rec

1330

MSD Result 1330

MSD Limits %Rec 100

90-110

%RPD

0

Units

Analysis Flag Date

04.28.2020 20:21

Chloride

Analytical Method: TPH by SW8015 Mod Seq Number:

3124494

Matrix: Solid

200

Prep Method:

RPD

Limit

20

SW8015P

Date Prep: 04.28.2020

mg/kg

MB Sample Id:

7702304-1-BLK

LCS Sample Id: 7702304-1-BKS LCSD Sample Id: 7702304-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 04.28.2020 23:23 < 50.0 975 98 937 35 1000 94 70-135 4 mg/kg 04.28.2020 23:23 Diesel Range Organics (DRO) 1080 108 1070 107 70-135 35 < 50.0 1000 1 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec %Rec Flag Flag Date Flag %Rec 04.28.2020 23:23 1-Chlorooctane 132 127 131 70-135 % 04.28.2020 23:23 o-Terphenyl 123 122 128 70-135 %

Analytical Method: TPH by SW8015 Mod

Prep Method:

SW8015P

Seq Number:

3124494

Matrix: Solid

Date Prep:

04.28.2020

Parameter

MBResult

MB Sample Id: 7702304-1-BLK

Analysis

Flag

Flag

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

Date 04.28.2020 23:03

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 = Parent Result = MS/LCS Result

= MSD/LCSD Result

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

Flag

Flag



Parent Sample Id:

QC Summary 660036

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124494

SW8015P Prep Method:

Date Prep: 04.28.2020

659919-037 MS Sample Id: 659919-037 S MSD Sample Id: 659919-037 SD

Parameter	Result	Amount	Result	%Rec	MSD Result	MSD %Rec	Limits	%KPD	Limit	Units	Date
Gasoline Range Hydrocarbons (GRO)	< 50.0	1000	879	88	905	90	70-135	3	35	mg/kg	04.29.2020 00:25
Diesel Range Organics (DRO)	< 50.0	1000	968	97	977	97	70-135	1	35	mg/kg	04.29.2020 00:25

Matrix: Soil

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		112		70-135	%	04.29.2020 00:25
o-Terphenyl	119		111		70-135	%	04.29.2020 00:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124449

MB Sample Id: 7702273-1-BLK Matrix: Solid

LCS Sample Id: 7702273-1-BKS

Prep Method:

SW5035A

Date Prep: 04.28.2020

LCSD Sample Id: 7702273-1-BSD

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	0.110	110	0.117	117	70-130	6	35	mg/kg	04.28.2020 22:12
Toluene	< 0.00200	0.100	0.0984	98	0.106	106	70-130	7	35	mg/kg	04.28.2020 22:12
Ethylbenzene	< 0.00200	0.100	0.0929	93	0.0989	99	71-129	6	35	mg/kg	04.28.2020 22:12
m,p-Xylenes	< 0.00400	0.200	0.181	91	0.193	97	70-135	6	35	mg/kg	04.28.2020 22:12
o-Xylene	< 0.00200	0.100	0.0932	93	0.0996	100	71-133	7	35	mg/kg	04.28.2020 22:12

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		108		112		70-130	%	04.28.2020 22:12
4-Bromofluorobenzene	108		98		100		70-130	%	04.28.2020 22:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124449 Parent Sample Id:

660036-001

Matrix: Soil

MS Sample Id: 660036-001 S

Prep Method: Date Prep:

SW5035A

04.28.2020

MSD Sample Id: 660036-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00202	0.101	0.126	125	0.120	120	70-130	5	35	mg/kg	04.28.2020 22:55	
Toluene	< 0.00202	0.101	0.113	112	0.105	105	70-130	7	35	mg/kg	04.28.2020 22:55	
Ethylbenzene	< 0.00202	0.101	0.106	105	0.0982	98	71-129	8	35	mg/kg	04.28.2020 22:55	
m,p-Xylenes	< 0.00404	0.202	0.206	102	0.191	96	70-135	8	35	mg/kg	04.28.2020 22:55	
o-Xylene	< 0.00202	0.101	0.105	104	0.0989	99	71-133	6	35	mg/kg	04.28.2020 22:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		108		70-130	%	04.28.2020 22:55
4-Bromofluorobenzene	92		96		70-130	%	04.28.2020 22:55

Revised Date101419 Rev. 2019.1



Chain of Custody

Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

Atlanta, GA (770) 449-8800

e) Date/Time					(
			15 m:152	1 2 2 Bis	2			John /
	Received by: (Signature)	Relinquished by: (Signature)	Time	Date/Time	by: (Signature)	Received by: (gnature)	Reinquished by: (Signature)
	ss previously negotiated.	of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	xpenses incurred Xenco, but not a	ny losses or e submitted to	any responsibility for an harge of \$5 for each sample	oles and shall not assu o each project and a c	only for the cost of samp f \$75.00 will be applied t	Service. Xenco will be liable
	tandard terms and conditions	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	any to Xenco, its	n client comp	s a valid purchase order from	of samples constitute	ent and relinquishment	otice: Signature of this docun
1631 / 245.1 / 7470 / 7471 : Hg	Mo Ni Se Ag TI U 163	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni S	s Ba Be C	RA Sb /	P / SPLP 6010: 8RC		d Metal(s) to be an	Circle Method(s) and Metal(s) to be analyzed
Na Sr TI Sn U V Zn	Mn Mo Ni K Se Ag SiO2	Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn		Al Sb As	8RCRA 13PPM Texas 11 Al Sb As Ba Be B	8RCRA	200.8 / 6020:	Total 200.7 / 6010
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Sample Comments			BTEX (I	Numbe	Time Depth	Date Sampled	ation Matrix	Sample Identification
lab, if received by 4:30pm			2/165			Total Containers:	Yes No N/A	Sample Custody Seals:
TAT starts the day recevied by the					~0.2	Correction Factor:	Yes (NO) NIA	Cooler Custody Seals:
					toann	て-	(Yes) No	Received Intact:
)	ner	Thermometer ID	Therr	ماري	Temperature (°C):
				S	Wet Ice: Yes No	Yes No	Temp Blank:	SAMPLE RECEIPT
					Due Date:	mith	Fatima Smith	Sampler's Name:
					Rush:	20 spill date	124/20 spi	PO# 3/
					Routine:		012920043	Project Number:
ALOUV CITE INCRES		ANALYSIS REQUEST			Turn Around	0-16	ash Deep 15-16	Project Name:

Proj Proj Phone:

City, State ZIP:

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

(432) 236-3849

Email: smith@ltenv.com, dmoir@ltenv.com

City, State ZIP:

Carlsbad, NM 88220

Deliverables: EDD

ADaPT

Reporting:Level | Level | PST/US

TRA_

State of Project:

Company Name Address:

Permian Office

Company Name: Bill to: (if different)

XTO Energy, Inc. Kyle Littrell

Program: UST/PST☐ PRP☐ Brownfield☐ RRᠿ Superfund☐

Work Order Comments

www.xenco.com

Page

of.

3104 E Greene St

Project Manager:

Dan Moir

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Work Order #: 660036

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

Date/ Time Received: 04.28.2020 04.28.00 PM

Temperature Measuring device used: T-NM-007

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

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

Analyst:

PH Device/Lot#:

Checklist completed by: Elizabeth McClellan

Date: <u>04.28.2020</u>

Checklist reviewed by: Jessica Warner

Date: 04.29.2020



Analytical Report 660189

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 05.01.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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



05.01.2020

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

Reference: XENCO Report No(s): 660189

Nash Deep 18-16

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660189. 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. 660189 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 660189

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW08	S	04.29.2020 10:03	0 - 8 ft	660189-001
SW03	S	04.29.2020 10:36	0 - 8 ft	660189-002
FS14	S	04.29.2020 14:42	8 ft	660189-003

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

Project ID: Report Date: 05.01.2020 012920043 Work Order Number(s): 660189 Date Received: 04.29.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 660189

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id: Contact: 012920043

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Wed 04.29.2020 15:57

Report Date: 05.01.2020 12:20

Project Manager: Jessica Kramer

	Lab Id:	660189-0	001	660189-0	02	660189-0	003		
Analysis Requested	Field Id:	SW08		SW03		FS14			
Anaiysis Kequesieu	Depth:	0-8 ft		0-8 ft		8- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	04.29.2020	10:03	04.29.2020	10:36	04.29.2020	14:42		
BTEX by EPA 8021B	Extracted:	04.29.2020	18:00	04.29.2020	18:00	04.29.2020	18:00		
	Analyzed:	04.30.2020	04:34	04.30.2020	04:55	04.30.2020	05:17		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00199	0.00199		
Toluene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00199	0.00199		
Ethylbenzene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00199	0.00199		
m,p-Xylenes		< 0.00398	0.00398	< 0.00398	0.00398	< 0.00398	0.00398		
o-Xylene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00199	0.00199		
Total Xylenes		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00199	0.00199		
Total BTEX		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00199	0.00199		
Chloride by EPA 300	Extracted:	04.30.2020	12:00	04.30.2020	12:00	04.30.2020	12:00		
	Analyzed:	04.30.2020	14:25	04.30.2020	14:42	04.30.2020	14:48		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		470	9.96	204	49.8	331	49.8		
TPH by SW8015 Mod	Extracted:	04.29.2020	17:00	04.29.2020	17:00	04.29.2020	17:00		
	Analyzed:	04.29.2020	19:46	04.29.2020	20:06	04.29.2020	20:47		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<49.9	49.9	< 50.1	50.1		
Diesel Range Organics (DRO)		<49.8	49.8	<49.9	49.9	< 50.1	50.1		
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<49.9	49.9	< 50.1	50.1		
Total GRO-DRO		<49.8	49.8	<49.9	49.9	< 50.1	50.1		
Total TPH		<49.8	49.8	<49.9	49.9	< 50.1	50.1		

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

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

Jessica Kramer



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW08** Matrix:

Date Received:04.29.2020 15:57

Lab Sample Id: 660189-001

Soil Date Collected: 04.29.2020 10:03

Sample Depth: 0 - 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Wet Weight

Analyst:

MAB

Seq Number: 3124744

Date Prep:

04.30.2020 12:00

Basis:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	470	9.96	mg/kg	04.30.2020 14:25		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

Analyst:

DTH DTH

Date Prep:

04.29.2020 17:00

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8		mg/kg	04.29.2020 19:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8		mg/kg	04.29.2020 19:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8		mg/kg	04.29.2020 19:46	U	1
Total GRO-DRO	PHC628	<49.8	49.8		mg/kg	04.29.2020 19:46	U	1
Total TPH	PHC635	<49.8	49.8		mg/kg	04.29.2020 19:46	U	1
Surrogate	•	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	99	%	70-135	04.29.2020 19:46
o-Terphenyl	84-15-1	108	%	70-135	04.29.2020 19:46



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: SW08

W08

Matrix: Soil

Date Received:04.29.2020 15:57

Lab Sample Id: 660189-001

Date Collected: 04.29.2020 10:03

Sample Depth: 0 - 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech: Analyst: MAB

MAB

Date Prep: 04.29.2020 18:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	04.30.2020 04:34	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	04.30.2020 04:34	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	04.30.2020 04:34	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	04.30.2020 04:34	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	04.30.2020 04:34	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	04.30.2020 04:34	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	04.30.2020 04:34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	108	%	70-130	04.30.2020 04:34		
1,4-Difluorobenzene		540-36-3	116	%	70-130	04.30.2020 04:34		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW03**

Matrix: Soil Date Received:04.29.2020 15:57

Lab Sample Id: 660189-002

Date Collected: 04.29.2020 10:36

Sample Depth: 0 - 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

% Moisture:

Tech: Analyst:

MAB

Date Prep:

04.30.2020 12:00

Basis:

Wet Weight

Seq Number: 3124744

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	204	49.8	mg/kg	04.30.2020 14:42		5

Analytical Method: TPH by SW8015 Mod

DTH

Analyst: DTH

Tech:

Date Prep:

04.29.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	04.29.2020 20:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	04.29.2020 20:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	04.29.2020 20:06	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	04.29.2020 20:06	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	04.29.2020 20:06	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	04.29.2020 20:06		
o-Terphenyl		84-15-1	108	%	70-135	04.29.2020 20:06		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **SW03**

Matrix:

Date Received:04.29.2020 15:57

Lab Sample Id: 660189-002

Soil Date Collected: 04.29.2020 10:36

Sample Depth: 0 - 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture: Basis:

Wet Weight

Analyst:

Seq Number: 3124578

MAB

Date Prep:

04.29.2020 18:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199	mg/kg	04.30.2020 04:55	U	1
Toluene	108-88-3	< 0.00199	0.00199	mg/kg	04.30.2020 04:55	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199	mg/kg	04.30.2020 04:55	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398	mg/kg	04.30.2020 04:55	U	1
o-Xylene	95-47-6	< 0.00199	0.00199	mg/kg	04.30.2020 04:55	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199	mg/kg	04.30.2020 04:55	U	1
Total BTEX		< 0.00199	0.00199	mg/kg	04.30.2020 04:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	04.30.2020 04:55	
4-Bromofluorobenzene	460-00-4	112	%	70-130	04.30.2020 04:55	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS14**

Matrix: Soil Date Received:04.29.2020 15:57

Lab Sample Id: 660189-003

Date Collected: 04.29.2020 14:42

Sample Depth: 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

Analyst:

MAB

Date Prep:

04.30.2020 12:00

% Moisture: Basis:

Wet Weight

Seq Number: 3124744

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	331	49.8	mg/kg	04.30.2020 14:48		5

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst: DTH

Date Prep:

04.29.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	04.29.2020 20:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	04.29.2020 20:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	04.29.2020 20:47	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	04.29.2020 20:47	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	04.29.2020 20:47	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS14** Matrix:

Date Received:04.29.2020 15:57

Lab Sample Id: 660189-003

Soil Date Collected: 04.29.2020 14:42

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

04.29.2020 18:00

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL	Units		Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	04.30.2020 05:17	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	04.30.2020 05:17	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	04.30.2020 05:17	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	04.30.2020 05:17	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	04.30.2020 05:17	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	04.30.2020 05:17	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	04.30.2020 05:17	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	114	%	70-130	04.30.2020 05:17		
4-Bromofluorobenzene		460-00-4	107	%	70-130	04.30.2020 05:17		



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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

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



QC Summary 660189

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: Chloride by EPA 300

Seq Number: 3124744

7702383-1-BLK

Matrix: Solid LCS Sample Id: 7702383-1-BKS

MB Sample Id: LCS LCS MB Spike

Parent

Result

Result Amount Result %Rec Date Chloride <10.0 250 102 90-110 04.30.2020 14:14 256 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

Parent Sample Id:

Parameter

Parameter

3124744 660189-001

Matrix: Soil

Spike

Amount

660189-001 S MS Sample Id: MS

%Rec

MS

Result

MSD

Result

MSD

%Rec

MSD Sample Id: 660189-001 SD

Limits

Limits

%RPD RPD Units

Prep Method:

Prep Method:

Date Prep:

Date Prep:

Analysis Flag Limit Date

E300P

04.30.2020

E300P

Units

04.30.2020

Analysis

Flag

Flag

Flag

Flag

04.30.2020 15:33 Chloride 470 199 689 110 690 110 90-110 0 20 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number: MB Sample Id: 3124586

7702382-1-BLK

Matrix: Solid

LCS Sample Id: 7702382-1-BKS

SW8015P Prep Method:

Date Prep: 04.29.2020

LCSD Sample Id: 7702382-1-BSD

Spike %RPD **RPD** MB LCS LCS Units LCSD LCSD Limits Analysis **Parameter** Result %Rec Limit Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 909 91 35 04.29.2020 14:23 < 50.0 1000 875 88 70-135 4 mg/kg Diesel Range Organics (DRO) < 50.0 1000 1010 101 978 98 70-135 3 35 04.29.2020 14:23 mg/kg

MB MB LCS LCS LCSD Limits Units Analysis LCSD **Surrogate** Flag Flag Flag %Rec %Rec %Rec Date 04.29.2020 14:23 1-Chlorooctane 92 112 108 70-135 % o-Terphenyl 98 114 109 70-135 % 04.29.2020 14:23

Analytical Method: TPH by SW8015 Mod

Seq Number:

3124586

Matrix: Solid

MB Sample Id: 7702382-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

MB Result

< 50.0

Prep Method:

SW8015P

Date Prep: 04.29.2020

> Units Analysis Date

04.29.2020 14:02 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number: Parent Sample Id: 3124586

660149-001

Matrix: Soil MS Sample Id: 660149-001 S Prep Method: Date Prep:

SW8015P

04.29.2020

MSD Sample Id: 660149-001 SD

Spike MS MS %RPD RPD Units Analysis Parent MSD MSD Limits **Parameter** Limit Result Amount Result %Rec Date Result %Rec Gasoline Range Hydrocarbons (GRO) 04.29.2020 15:24 < 50.3 1010 893 88 902 90 35 mg/kg 70-135 1 04.29.2020 15:24 70-135 Diesel Range Organics (DRO) 1010 1030 70.5 1030 95 96 0 35 mg/kg

MS MS **MSD** Units Analysis MSD Limits **Surrogate** Flag Date %Rec Flag %Rec 04.29.2020 15:24 1-Chlorooctane 110 111 70-135 % 04.29.2020 15:24 o-Terphenyl 114 112 70-135 %

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

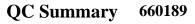
[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) | [D] = 100 * (C) / [B]

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

LCS = Laboratory Control Sample = Parent Result

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

Flag





LT Environmental, Inc.

Nash Deep 18-16

Analytical Method:BTEX by EPA 8021BPrep Method:SW5035ASeq Number:3124578Matrix:SolidDate Prep:04.29.2020

MB Sample Id: 7702371-1-BLK LCS Sample Id: 7702371-1-BKS LCSD Sample Id: 7702371-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.107	107	0.111	111	70-130	4	35	mg/kg	04.30.2020 02:47	
Toluene	< 0.00200	0.100	0.0968	97	0.0983	98	70-130	2	35	mg/kg	04.30.2020 02:47	
Ethylbenzene	< 0.00200	0.100	0.0900	90	0.0916	92	71-129	2	35	mg/kg	04.30.2020 02:47	
m,p-Xylenes	< 0.00400	0.200	0.175	88	0.177	89	70-135	1	35	mg/kg	04.30.2020 02:47	
o-Xylene	< 0.00200	0.100	0.0911	91	0.0923	92	71-133	1	35	mg/kg	04.30.2020 02:47	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	112		1	09		110)	70)-130	%	04.30.2020 02:47	
4-Bromofluorobenzene	102		9	9		100)	70)-130	%	04.30.2020 02:47	

Analytical Method:BTEX by EPA 8021BPrep Method:SW5035ASeq Number:3124578Matrix: SoilDate Prep:04.29.2020

Parent Sample Id: 660189-001 MS Sample Id: 660189-001 S MSD Sample Id: 660189-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.100	0.106	106	0.106	106	70-130	0	35	mg/kg	04.30.2020 03:30
Toluene	< 0.00200	0.100	0.0944	94	0.0958	96	70-130	1	35	mg/kg	04.30.2020 03:30
Ethylbenzene	< 0.00200	0.100	0.0877	88	0.0870	87	71-129	1	35	mg/kg	04.30.2020 03:30
m,p-Xylenes	< 0.00401	0.200	0.170	85	0.168	84	70-135	1	35	mg/kg	04.30.2020 03:30
o-Xylene	< 0.00200	0.100	0.0884	88	0.0889	89	71-133	1	35	mg/kg	04.30.2020 03:30

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		108		70-130	%	04.30.2020 03:30
4-Bromofluorobenzene	101		102		70-130	%	04.30.2020 03:30

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			1557 2	7/27/20155	111		1	6		Jany	D : 6
ire) Date/Time	Received by: (Signature)	Relinquished by: (Signature)	me	Date/Time		Received by: (Signature	Received	2	by: (Signature)	Relinquished by: (/18/
	s and conditions eyond the control negotiated.	of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	rred by the clier at analyzed. The	xpenses incur Xenco, but no	ty for any losses or e sample submitted to	s a valid purchase o sme any responsibil harge of \$5 for each	ind shall not assu h project and a cl	cost of samples abe applied to eac	able only for the ge of \$75.00 will	of service. Xenco will be lic of Xenco. A minimum char	
a Sr Tl Sn U V Zn 1631/245.1/7470/7471:Hg	K Se Ag SiO2 Na	B Cd Ca Cr Co Cu Fe Pb Mg Cr Co Cu Pb Mn Mo Ni Se Ag	As Ba Be B 3a Be Cd Cr	Sb As Ba Be	8RCRA 13PPM Texas 11 TCLP / SPLP 6010: 8RCRA	8RCRA 13	llyzed	Metal(s) to be and	(s) and Meta	Circle Method(s) and Metal(s) to be analyzed	:24:31
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TAT starts the day recevied by the lab			X			Total Containers:	Tota	ð		Sample Custody Seals:	
Zn Acetate+ NaOH: Zn			(E le		19		Corre	8	Seals: Yes	Cooler Custody Seals:	
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None: NO			0))	5	Rush:	7	Who A	72	Sampler's Name:	
МеОН: Ме)		Code	Routine	しい	292004	10	Project Number:	
Preservative Codes	UEST	ANALYSIS REQUEST		8	Turn Around	Tui	01-01	Da	Z	Project Name:	
ADaPT Other:	Deliverables: EDD	dmoir@Henv.com	11	tenv.co	tsmith@ltenv.com	Email:		LLOC OCT	1207	Phone:	
ST/UST TRRP Le	Reporting:Level II Level III PST/UST TRRP Level IV	NM 88720		P: Carls	City, State ZIP:		2017	1	11101	City, State ZIP:	
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n Page 1	04-5440 689-6701 <u>www.xenco.com</u>	TX (806) 794-1296 Crasibad, NM (432) 704-5440 3) 620-2000 West Palm Beach, FL (561) 689-6701	Tampa,FL (81	(915) 585-34)) 449-8800	Microland, IX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794- Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000	nix,AZ (480) 355-0	Phoe	3)		Page
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		11040 N11	201								? <i>j</i>

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Work Order #: 660189

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

Date/ Time Received: 04.29.2020 03.57.00 PM

Temperature Measuring device used: T-NM-007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1.6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping conta	iner/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	•	Yes	
#6*Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquis	hed/ received?	Yes	
#10 Chain of Custody agrees with sample I	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	test(s)?	Yes	

٠N	lust	he	comp	leted	for	after-	hours	delive	rv of	samples	nrior to	o placino	ı in th	e refria	erator
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Analyst:

PH Device/Lot#:

Checklist completed by: Elizabeth McClellan

#16 All samples received within hold time?

#18 Water VOC samples have zero headspace?

#17 Subcontract of sample(s)?

Date: 04.29.2020

Yes

No

N/A

Checklist reviewed by: Jessica Vramer

Date: 04.30.2020



Certificate of Analysis Summary 660561

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id:

012920043

Contact: Dan M

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Tue 05.05.2020 09:33

Report Date: 05.07.2020 11:41

Project Manager: Jessica Kramer

	Lab Id:	660561-0	001	660561-0	002	660561-0	003	660561-004		660561-005		660561-006	
Analysis Requested	Field Id:	FS01		FS02		FS03		FS04		FS05		FS06	
Anaiysis Kequesieu	Depth:	13- ft		13- ft		13- ft	:	8- ft		8- ft		8- ft	
	Matrix:	SOLII)	SOLII)	SOLII	D	SOLII	D	SOLIE)	SOLII)
	Sampled:	05.04.2020	14:12	05.04.2020	14:15	05.04.2020	14:20	05.04.2020	10:23	05.04.2020 10:21		05.04.2020	09:12
BTEX by EPA 8021B	Extracted:	05.05.2020	05.05.2020 20:00		20:00	05.05.2020	20:00	05.05.2020	20:00	05.05.2020	20:00	05.05.2020 20:	
	Analyzed:	05.06.2020	05.06.2020 03:39 05		04:01	05.06.2020	04:22	05.06.2020	04:44	05.06.2020	05:05	05.06.2020	05:26
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Toluene		< 0.00200	<0.00200 0.00200		0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Ethylbenzene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
m,p-Xylenes		< 0.00400	0.00400	< 0.00400	0.00400	< 0.00401	0.00401	< 0.00401	0.00401	< 0.00399	0.00399	< 0.00398	0.00398
o-Xylene		< 0.00200	<0.00200 0.00200		0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Total Xylenes		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Total BTEX		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199
Chloride by EPA 300	Extracted:	05.05.2020	10:09	05.05.2020 10:09		05.05.2020	10:09	05.05.2020	10:09	05.05.2020	10:09	05.05.2020	10:09
	Analyzed:	05.05.2020	12:27	05.05.2020 15:43		05.05.2020 12:51		05.05.2020 12:57		05.05.2020 13:04		4 05.05.2020 15:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		70.9	49.7	38.2	9.96	96.9	49.9	1030	49.8	53.8	50.1	20.0	9.98
TPH by SW8015 Mod	Extracted:	05.05.2020	17:30	05.05.2020	17:30	05.05.2020 17:30		05.05.2020 17:30		05.05.2020 17:30		05.05.2020	17:30
	Analyzed:	05.06.2020	04:53	05.06.2020	05:54	05.06.2020	06:15	05.06.2020	06:35	05.06.2020	06:55	05.06.2020	07:16
	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	< 50.0	50.0	< 50.1	50.1	< 50.0	50.0	< 50.1	50.1	< 50.2	50.2
Diesel Range Organics (DRO)		<49.9	49.9	< 50.0	50.0	< 50.1	50.1	<50.0	50.0	<50.1	50.1	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	< 50.0	50.0	< 50.1	50.1	<50.0	50.0	< 50.1	50.1	< 50.2	50.2
Total GRO-DRO		<49.9	49.9	< 50.0	50.0	< 50.1	50.1	< 50.0	50.0	<50.1	50.1	< 50.2	50.2
Total TPH		<49.9	49.9	< 50.0	50.0	< 50.1	50.1	< 50.0	50.0	<50.1	50.1	<50.2	50.2

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

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

Jessica Weamer

Jessica Kramer Project Manager



Certificate of Analysis Summary 660561

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id:

012920043

Contact:

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Tue 05.05.2020 09:33

Report Date: 05.07.2020 11:41

Project Manager: Jessica Kramer

	Lab Id:	660561-0	007	660561-0	08	660561-0	009	660561-0	010	660561-0	11	660561-0)12
Analysis Requested	Field Id:	FS07		FS08		FS019		FS10		FS11		FS12	
Analysis Requested	Depth:	8- ft		8- ft		8- ft		8- ft		8- ft		8- ft	
	Matrix:	SOLII)	SOLIE)	SOLII)	SOLID		SOLID		SOLIE)
	Sampled:	05.04.2020	09:07	05.04.2020	15:30	05.04.2020 16:10		05.04.2020 16:18		05.04.2020 16:20		05.04.2020	13:44
BTEX by EPA 8021B	Extracted:	05.05.2020	05.05.2020 20:00		20:00	05.05.2020	20:00	05.05.2020	20:00	05.05.2020	20:00	05.05.2020	20:00
	Analyzed:	05.06.2020	05.06.2020 05:48		06:09	05.06.2020	06:30	05.06.2020	06:52	05.06.2020	07:56	05.06.2020	08:17
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Toluene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Ethylbenzene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
m,p-Xylenes		< 0.00401	0.00401	< 0.00399	0.00399	< 0.00398	0.00398	< 0.00401	0.00401	< 0.00400	0.00400	< 0.00402	0.00402
o-Xylene		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Total Xylenes		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Total BTEX		< 0.00200	0.00200	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Chloride by EPA 300	Extracted:	05.05.2020	10:09	05.05.2020 10:09		05.05.2020	10:09	05.05.2020	10:09	05.05.2020 10:09		05.05.2020 10:09	
	Analyzed:	05.05.2020	13:45	05.05.2020 13:52		05.05.2020 13:58		05.05.2020 14:05		05.05.2020 14:11		05.05.2020 14:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2200	49.7	276	49.9	285	50.1	72.5	49.8	141	49.9	66.2	49.5
TPH by SW8015 Mod	Extracted:	05.05.2020	17:30	05.05.2020	17:30	05.05.2020	17:30	05.05.2020	17:30	05.05.2020	17:30	05.05.2020	17:30
	Analyzed:	05.06.2020	07:36	05.06.2020	07:57	05.06.2020	08:17	05.06.2020 08:38		05.06.2020 10:36		05.06.2020	11:16
	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	<50.3	50.3	<49.9	49.9	<49.9	49.9	<50.2	50.2	< 50.1	50.1
Diesel Range Organics (DRO)		< 50.0	50.0	<50.3	50.3	<49.9	49.9	<49.9	49.9	< 50.2	50.2	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		< 50.0	50.0	<50.3	50.3	<49.9	49.9	<49.9	49.9	< 50.2	50.2	<50.1	50.1
Total GRO-DRO		< 50.0	50.0	< 50.3	50.3	<49.9	49.9	<49.9	49.9	< 50.2	50.2	< 50.1	50.1
Total TPH		< 50.0	50.0	<50.3	50.3	<49.9	49.9	<49.9	49.9	<50.2	50.2	<50.1	50.1

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

Jessian Vramer

Jessica Kramer Project Manager

Certificate of Analysis Summary 660561

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id: Contact: 012920043

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Tue 05.05.2020 09:33

Report Date: 05.07.2020 11:41

Project Manager: Jessica Kramer

	Lab Id:	660561-013			
Analysis Requested	Field Id:	FS13			
Anaiysis Requesieu	Depth:	8- ft			
	Matrix:	SOLID			
	Sampled:	05.04.2020 13:40			
BTEX by EPA 8021B	Extracted:	05.05.2020 20:00			
	Analyzed:	05.06.2020 09:32			
	Units/RL:	mg/kg RL			
Benzene		<0.00200 0.00200			
Toluene		< 0.00200 0.00200			
Ethylbenzene		<0.00200 0.00200			
m,p-Xylenes		<0.00400 0.00400			
o-Xylene		<0.00200 0.00200			
Total Xylenes		<0.00200 0.00200			
Total BTEX		<0.00200 0.00200			
Chloride by EPA 300	Extracted:	05.05.2020 10:09			
	Analyzed:	05.05.2020 14:38			
	Units/RL:	mg/kg RL			
Chloride		120 49.6			
TPH by SW8015 Mod	Extracted:	05.05.2020 17:30			
	Analyzed:	05.06.2020 11:37			
	Units/RL:	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8			
Diesel Range Organics (DRO)		<49.8 49.8			
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8			
Total GRO-DRO		<49.8 49.8			
Total TPH		<49.8 49.8			

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

Jessica Kramer

Jessica Kramer Project Manager



Analytical Report 660561

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 05.07.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483)



05.07.2020

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

Reference: XENCO Report No(s): 660561

Nash Deep 18-16

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660561. 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. 660561 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 660561

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	05.04.2020 14:12	13 ft	660561-001
FS02	S	05.04.2020 14:15	13 ft	660561-002
FS03	S	05.04.2020 14:20	13 ft	660561-003
FS04	S	05.04.2020 10:23	8 ft	660561-004
FS05	S	05.04.2020 10:21	8 ft	660561-005
FS06	S	05.04.2020 09:12	8 ft	660561-006
FS07	S	05.04.2020 09:07	8 ft	660561-007
FS08	S	05.04.2020 15:30	8 ft	660561-008
FS019	S	05.04.2020 16:10	8 ft	660561-009
FS10	S	05.04.2020 16:18	8 ft	660561-010
FS11	S	05.04.2020 16:20	8 ft	660561-011
FS12	S	05.04.2020 13:44	8 ft	660561-012
FS13	S	05.04.2020 13:40	8 ft	660561-013

Page 115 of 171

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

Project ID: Report Date: 05.07.2020 012920043 Work Order Number(s): 660561 Date Received: 05.05.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS01

Matrix: Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-001

Date Collected: 05.04.2020 14:12

Sample Depth: 13 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

05.05.2020 10:09

Basis:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.9	49.7	mg/kg	05.05.2020 12:27		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

05.06.2020 04:53

Tech: Analyst: DTH

DTH

Date Prep: 05.05.2020 17:30

Basis:

70-135

% Moisture:

Wet Weight

Seq Number: 3125221

o-Terphenyl

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	05.06.2020 04:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	05.06.2020 04:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	05.06.2020 04:53	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	05.06.2020 04:53	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	05.06.2020 04:53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	98	%	70-135	05.06.2020 04:53		

95

84-15-1



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id:

FS01

Matrix:

Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-001

Date Collected: 05.04.2020 14:12

Sample Depth: 13 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech: Analyst: MAB

MAB

Date Prep: 05.05.2020 20:00 Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 03:39	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 03:39	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 03:39	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	05.06.2020 03:39	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 03:39	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 03:39	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 03:39	U	1
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Fla
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.06.2020 03:39	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.06.2020 03:39	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS02

S02

Matrix: Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-002

Date Collected: 05.04.2020 14:15

Sample Depth: 13 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep:

05.05.2020 10:09

Basis:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	38.2	9.96	mg/kg	05.05.2020 15:43		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:
Analyst:

DTH DTH

Date Prep: 05.05.2020 17:30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	05.06.2020 05:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	05.06.2020 05:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	05.06.2020 05:54	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	05.06.2020 05:54	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	05.06.2020 05:54	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS02**

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-002

Solid Date Collected: 05.04.2020 14:15

Sample Depth: 13 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep:

05.05.2020 20:00

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 04:01	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 04:01	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 04:01	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	05.06.2020 04:01	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 04:01	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 04:01	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 04:01	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	116	%	70-130	05.06.2020 04:01		
4-Bromofluorobenzene		460-00-4	111	%	70-130	05.06.2020 04:01		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS03**

Matrix: Solid Date Received:05.05.2020 09:33

Lab Sample Id: 660561-003

Date Collected: 05.04.2020 14:20

Sample Depth: 13 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

Analyst:

MAB

Date Prep:

05.05.2020 10:09

Basis:

% Moisture:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	96.9	49.9	mg/kg	05.05.2020 12:51		5

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

DTH Analyst:

Date Prep:

05.05.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	05.06.2020 06:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	05.06.2020 06:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	05.06.2020 06:15	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	05.06.2020 06:15	U	1
Total TPH	PHC635	<50.1	50.1		mg/kg	05.06.2020 06:15	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	89	%	70-135	05.06.2020 06:15		
o-Terphenyl		84-15-1	87	%	70-135	05.06.2020 06:15		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id: **FS03**

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-003

Date Collected: 05.04.2020 14:20

Sample Depth: 13 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst: Seq Number: 3125198

MAB

Date Prep: 05.05.2020 20:00 Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200	mg/kg	05.06.2020 04:22	U	1
Toluene	108-88-3	< 0.00200	0.00200	mg/kg	05.06.2020 04:22	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200	mg/kg	05.06.2020 04:22	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401	mg/kg	05.06.2020 04:22	U	1
o-Xylene	95-47-6	< 0.00200	0.00200	mg/kg	05.06.2020 04:22	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200	mg/kg	05.06.2020 04:22	U	1
Total BTEX		< 0.00200	0.00200	mg/kg	05.06.2020 04:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.06.2020 04:22	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.06.2020 04:22	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS04** Lab Sample Id: 660561-004

Analytical Method: Chloride by EPA 300

MAB

Matrix:

Solid

Date Received:05.05.2020 09:33

Date Collected: 05.04.2020 10:23

Sample Depth: 8 ft

Prep Method: E300P

% Moisture:

Seq Number: 3125106

Tech:

MAB Analyst:

Date Prep:

05.05.2020 10:09

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	49.8	mg/kg	05.05.2020 12:57		5

Analytical Method: TPH by SW8015 Mod

DTH

Tech:

DTH Analyst:

o-Terphenyl

84-15-1

05.05.2020 17:30 Date Prep:

% Moisture: Basis:

70-135

Prep Method: SW8015P

05.06.2020 06:35

Wet Weight

Seq Number: 3125221

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	05.06.2020 06:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	05.06.2020 06:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	05.06.2020 06:35	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	05.06.2020 06:35	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	05.06.2020 06:35	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	05.06.2020 06:35		

87



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id: **FS04**

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-004

Date Collected: 05.04.2020 10:23

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: Analyst: MAB MAB

% Moisture:

Seq Number: 3125198

Date Prep: 05.05.2020 20:00 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 04:44	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 04:44	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 04:44	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	05.06.2020 04:44	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 04:44	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 04:44	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 04:44	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	108	%	70-130	05.06.2020 04:44		
1,4-Difluorobenzene		540-36-3	113	%	70-130	05.06.2020 04:44		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS05**

Lab Sample Id: 660561-005

Analytical Method: Chloride by EPA 300

Matrix:

Solid

Date Received:05.05.2020 09:33

Date Collected: 05.04.2020 10:21

Sample Depth: 8 ft

Prep Method: E300P

% Moisture:

Tech:

MAB

Analyst:

MAB

Date Prep:

05.05.2020 10:09

Basis:

Wet Weight

Seq Number: 3125106

Result **Parameter** Cas Number RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 53.8 50.1 mg/kg 05.05.2020 13:04 5

Analytical Method: TPH by SW8015 Mod

DTH

Tech:

Analyst: DTH

Seq Number: 3125221

Date Prep:

05.05.2020 17:30

Basis:

% Moisture:

Wet Weight

Flag

Prep Method: SW8015P

Cas Number **Parameter** Result RLUnits **Analysis Date** Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 < 50.1 50.1 05.06.2020 06:55 U mg/kg Diesel Range Organics (DRO) C10C28DRO 50.1 05.06.2020 06:55 < 50.1 U 1 mg/kg Motor Oil Range Hydrocarbons (MRO) PHCG2835 < 50.1 50.1 05.06.2020 06:55 U mg/kg 1 Total GRO-DRO PHC628 < 50.1 50.1 mg/kg 05.06.2020 06:55 U Total TPH PHC635 50.1 05.06.2020 06:55 U < 50.1 1 mg/kg

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	90	%	70-135	05.06.2020 06:55
o-Terphenyl	84-15-1	87	%	70-135	05.06.2020 06:55



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS05**

Matrix: Solid Date Received:05.05.2020 09:33

Lab Sample Id: 660561-005

Date Collected: 05.04.2020 10:21

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech:

MAB

Date Prep:

05.05.2020 20:00 Basis: Wet Weight

Analyst: MAB Seq Number: 3125198

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 05:05	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 05:05	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 05:05	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	05.06.2020 05:05	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 05:05	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 05:05	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 05:05	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	109	%	70-130	05.06.2020 05:05		
1.4-Difluorobenzene		540-36-3	115	%	70-130	05.06.2020 05:05		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS06**

Lab Sample Id: 660561-006

Matrix:

Solid

Date Received:05.05.2020 09:33

Date Collected: 05.04.2020 09:12

Sample Depth: 8 ft

Prep Method: E300P

% Moisture:

Analytical Method: Chloride by EPA 300

Tech:

MAB

Analyst:

MAB

Date Prep:

05.05.2020 10:09

Basis:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.0	9.98	mg/kg	05.05.2020 15:50		1

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst: DTH

Date Prep: 05.05.2020 17:30 Basis:

Wet Weight

Prep Method: SW8015P

% Moisture:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2		mg/kg	05.06.2020 07:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	05.06.2020 07:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	05.06.2020 07:16	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	05.06.2020 07:16	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	05.06.2020 07:16	U	1
Surrogate	C	as Number '	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS06**

Matrix:

Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-006

Date Collected: 05.04.2020 09:12

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech:

MAB

MAB Analyst: Seq Number: 3125198 Date Prep:

05.05.2020 20:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199	mg/kg	05.06.2020 05:26	U	1
Toluene	108-88-3	< 0.00199	0.00199	mg/kg	05.06.2020 05:26	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199	mg/kg	05.06.2020 05:26	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398	mg/kg	05.06.2020 05:26	U	1
o-Xylene	95-47-6	< 0.00199	0.00199	mg/kg	05.06.2020 05:26	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199	mg/kg	05.06.2020 05:26	U	1
Total BTEX		< 0.00199	0.00199	mg/kg	05.06.2020 05:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.06.2020 05:26	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.06.2020 05:26	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS07**

Matrix:

Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-007

Date Collected: 05.04.2020 09:07

Sample Depth: 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

Analyst:

MAB

Date Prep:

05.05.2020 10:09

Basis:

% Moisture:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2200	49.7	mg/kg	05.05.2020 13:45		5

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst: DTH

Date Prep:

05.05.2020 17:30

% Moisture:

Basis: Wet Weight

Prep Method: SW8015P

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	05.06.2020 07:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	05.06.2020 07:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	05.06.2020 07:36	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	05.06.2020 07:36	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	05.06.2020 07:36	U	1
Surrogate		Cas Number %	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id: **FS07**

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-007

Date Collected: 05.04.2020 09:07

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech:

MAB MAB

Date Prep:

05.05.2020 20:00

Basis:

Wet Weight

Analyst: Seq Number: 3125198

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 05:48	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 05:48	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 05:48	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	05.06.2020 05:48	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 05:48	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 05:48	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 05:48	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	115	%	70-130	05.06.2020 05:48		
4-Bromofluorobenzene		460-00-4	108	%	70-130	05.06.2020 05:48		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS08**

Lab Sample Id: 660561-008

MAB

MAB

Date Received:05.05.2020 09:33

Solid Date Collected: 05.04.2020 15:30

05.05.2020 10:09

Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Seq Number: 3125106

Tech:

Analyst:

Result **Parameter** Cas Number RLUnits **Analysis Date** Dil Flag Chloride 16887-00-6 276 49.9 mg/kg 05.05.2020 13:52 5

Matrix:

Date Prep:

Analytical Method: TPH by SW8015 Mod

DTH Tech:

Analyst: DTH

05.05.2020 17:30 Date Prep:

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3		mg/kg	05.06.2020 07:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.3	50.3		mg/kg	05.06.2020 07:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.3	50.3		mg/kg	05.06.2020 07:57	U	1
Total GRO-DRO	PHC628	< 50.3	50.3		mg/kg	05.06.2020 07:57	U	1
Total TPH	PHC635	< 50.3	50.3		mg/kg	05.06.2020 07:57	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS08** Matrix: Solid Date Received:05.05.2020 09:33

Lab Sample Id: 660561-008

Date Collected: 05.04.2020 15:30

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

Date Prep: 05.05.2020 20:00 % Moisture:

Basis:

Wet Weight

Analyst: MAB

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200	mg/kg	05.06.2020 06:09	U	1
Toluene	108-88-3	< 0.00200	0.00200	mg/kg	05.06.2020 06:09	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200	mg/kg	05.06.2020 06:09	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399	mg/kg	05.06.2020 06:09	U	1
o-Xylene	95-47-6	< 0.00200	0.00200	mg/kg	05.06.2020 06:09	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200	mg/kg	05.06.2020 06:09	U	1
Total BTEX		< 0.00200	0.00200	mg/kg	05.06.2020 06:09	U	1
g			V D	TT . 14	4 - 1 - 1 - D - 4	T21	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.06.2020 06:09	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.06.2020 06:09	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id: FS019

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-009

Date Collected: 05.04.2020 16:10

Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB

MAB

Date Prep:

05.05.2020 10:09

Basis:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	285	50.1	mg/kg	05.05.2020 13:58		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

05.05.2020 17:30

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	05.06.2020 08:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	05.06.2020 08:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	05.06.2020 08:17	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	05.06.2020 08:17	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	05.06.2020 08:17	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	05.06.2020 08:17		
o-Terphenyl		84-15-1	90	%	70-135	05.06.2020 08:17		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id: FS019

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-009

Date Collected: 05.04.2020 16:10

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

05.05.2020 20:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	05.06.2020 06:30	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	05.06.2020 06:30	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	05.06.2020 06:30	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	05.06.2020 06:30	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	05.06.2020 06:30	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	05.06.2020 06:30	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	05.06.2020 06:30	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4 December of Lyanghangana		160 00 1	110	0/	70 120	05 06 2020 06.20		

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.06.2020 06:30	
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.06.2020 06:30	



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Nash Deep 18-16

Sample Id: **FS10** Lab Sample Id: 660561-010

Matrix:

Solid

Date Received:05.05.2020 09:33

Date Collected: 05.04.2020 16:18

Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech:

MAB

Analyst:

MAB

Date Prep:

Date Prep:

05.05.2020 10:09

05.05.2020 17:30

Basis:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	72.5	49.8	mo/ko	05 05 2020 14:05		5

Analytical Method: TPH by SW8015 Mod

DTH

Tech:

Analyst: DTH

Seq Number: 3125221

Prep Method: SW8015P

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	05.06.2020 08:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	05.06.2020 08:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	05.06.2020 08:38	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	05.06.2020 08:38	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	05.06.2020 08:38	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	91	%	70-135	05.06.2020 08:38
o-Terphenyl	84-15-1	88	%	70-135	05.06.2020 08:38



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Nash Deep 18-16

Sample Id: FS10

Matrix: Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-010

Date Collected: 05.04.2020 16:18

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

05.06.2020 06:52

Tech:

MAB

% Moisture:

Basis:

Analyst: MAB

Date Prep:

05.05.2020 20:00

Wet Weight

Seq Number: 3125198

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 06:52	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 06:52	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 06:52	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	05.06.2020 06:52	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 06:52	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 06:52	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 06:52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	108	%	70-130	05.06.2020 06:52		

114

%

70-130

540-36-3



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id: FS11

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-011

Date Collected: 05.04.2020 16:20

Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

05.05.2020 10:09 Basis:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	141	49.9	mg/kg	05.05.2020 14:11		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:
Analyst:

DTH DTH

Date Prep:

05.05.2020 17:30

Basis:

Wet Weight

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2		mg/kg	05.06.2020 10:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	05.06.2020 10:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	05.06.2020 10:36	U	1
Total GRO-DRO	PHC628	<50.2	50.2		mg/kg	05.06.2020 10:36	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	05.06.2020 10:36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	05.06.2020 10:36		
o-Terphenyl		84-15-1	96	%	70-135	05.06.2020 10:36		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id:

FS11

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-011

Date Collected: 05.04.2020 16:20

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech:

MAB

Date Prep:

05.05.2020 20:00

Basis:

Wet Weight

Analyst: MAB Seq Number: 3125198

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 07:56	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 07:56	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 07:56	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	05.06.2020 07:56	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 07:56	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 07:56	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 07:56	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	108	%	70-130	05.06.2020 07:56		
1,4-Difluorobenzene		540-36-3	115	%	70-130	05.06.2020 07:56		



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS12**

Lab Sample Id: 660561-012

Analytical Method: Chloride by EPA 300

MAB

Matrix: Solid

Date Received:05.05.2020 09:33

Date Collected: 05.04.2020 13:44

Sample Depth: 8 ft

Prep Method: E300P

% Moisture:

MAB Analyst: Seq Number: 3125106

Tech:

Date Prep: 05.05.2020 10:09 Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.2	49.5	mg/kg	05.05.2020 14:31		5

Analytical Method: TPH by SW8015 Mod

DTH

Analyst: DTH

Tech:

05.05.2020 17:30 Date Prep:

% Moisture:

Prep Method: SW8015P

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	05.06.2020 11:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	05.06.2020 11:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	05.06.2020 11:16	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	05.06.2020 11:16	U	1
Total TPH	PHC635	<50.1	50.1		mg/kg	05.06.2020 11:16	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Solid

Sample Id: **FS12**

Matrix:

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-012

Date Collected: 05.04.2020 13:44

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB MAB

% Moisture:

Analyst:

Seq Number: 3125198

Wet Weight Date Prep: 05.05.2020 20:00 Basis:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201	mg/kg	05.06.2020 08:17	U	1
Toluene	108-88-3	< 0.00201	0.00201	mg/kg	05.06.2020 08:17	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201	mg/kg	05.06.2020 08:17	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402	mg/kg	05.06.2020 08:17	U	1
o-Xylene	95-47-6	< 0.00201	0.00201	mg/kg	05.06.2020 08:17	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201	mg/kg	05.06.2020 08:17	U	1
Total BTEX		< 0.00201	0.00201	mg/kg	05.06.2020 08:17	U	1
g .						***	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.06.2020 08:17	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.06.2020 08:17	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS13**

Matrix:

Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-013

Date Collected: 05.04.2020 13:40

Sample Depth: 8 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

MAB Analyst:

Date Prep:

05.05.2020 10:09

Basis:

% Moisture:

Wet Weight

Seq Number: 3125106

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	49.6	mg/kg	05.05.2020 14:38		5

Analytical Method: TPH by SW8015 Mod

Tech:

DTH Analyst:

DTH

Date Prep:

05.05.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8		mg/kg	05.06.2020 11:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8		mg/kg	05.06.2020 11:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8		mg/kg	05.06.2020 11:37	U	1
Total GRO-DRO	PHC628	<49.8	49.8		mg/kg	05.06.2020 11:37	U	1
Total TPH	PHC635	<49.8	49.8		mg/kg	05.06.2020 11:37	U	1
Surrogate	C	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	94	%	70-135	05.06.2020 11:37
o-Terphenyl	84-15-1	89	%	70-135	05.06.2020 11:37



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS13

Matrix: Solid

Date Received:05.05.2020 09:33

Lab Sample Id: 660561-013

Date Collected: 05.04.2020 13:40

Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

70-130

Analyst: MA

MAB

Date Prep: 05.05.2020 20:00

Basis: We

05.06.2020 09:32

Wet Weight

Seq Number: 3125198

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.06.2020 09:32	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.06.2020 09:32	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.06.2020 09:32	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	05.06.2020 09:32	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.06.2020 09:32	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.06.2020 09:32	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.06.2020 09:32	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	116	%	70-130	05.06.2020 09:32		

116

540-36-3



Flagging Criteria

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

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

Matrix Spike

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS

MSD: Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Flag

Flag

Flag

QC Summary 660561



LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: Chloride by EPA 300

Seq Number: 3125106 Matrix: Solid

E300P Prep Method:

Date Prep: 05.05.2020

7702708-1-BLK LCS Sample Id: 7702708-1-BKS LCSD Sample Id: 7702708-1-BSD MB Sample Id:

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

Chloride <10.0 250 251 100 250 90-110 0 20 05.05.2020 12:15 100 mg/kg

Analytical Method: Chloride by EPA 300

Matrix: Solid

Prep Method:

E300P

Seq Number: 3125106 Date Prep: 05.05.2020 660561-001 Parent Sample Id:

660561-001 S MS Sample Id:

MSD Sample Id: 660561-001 SD

Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec Result %Rec Limit Date 70.9 20 05.05.2020 12:33 Chloride 199 259 95 257 94 90-110 1 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3125106

Prep Method:

E300P

Matrix: Solid Date Prep: 05.05.2020 Parent Sample Id: 660561-011

MS Sample Id: 660561-011 S MSD Sample Id: 660561-011 SD

Spike **RPD Parent** MS MS %RPD Units MSD **MSD** Limite Analysis Flag **Parameter** Result Result %Rec Limit Date Amount Result %Rec Chloride 95 2 20 05.05.2020 14:18 141 200 331 326 93 90-110 mg/kg

Analytical Method: TPH by SW8015 Mod

Seg Number:

3125221

Matrix: Solid

SW8015P Prep Method:

Date Prep: 05.05.2020

MB Sample Id: 7702804-1-BLK LCS Sample Id: 7702804-1-BKS LCSD Sample Id: 7702804-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 05.06.2020 04:12 912 91 35 < 50.0 1000 875 88 70-135 4 mg/kg 05.06.2020 04:12 Diesel Range Organics (DRO) 939 94 887 89 70-135 35 < 50.0 1000 6 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** Flag %Rec %Rec Flag Flag Date %Rec 05.06.2020 04:12 1-Chlorooctane 85 97 104 70-135 % 05.06.2020 04:12 o-Terphenyl 82 85 81 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3125221

Matrix: Solid

Prep Method:

SW8015P 05.05.2020

Date Prep: MB Sample Id: 7702804-1-BLK

Parameter

MBResult

Analysis Date

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

05.06.2020 03:52

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)

= Parent Result = MS/LCS Result = MSD/LCSD Result

LCS = Laboratory Control Sample

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

Flag

Flag

Flag



Parent Sample Id:

QC Summary 660561

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125221

660561-001

Matrix: Solid MS Sample Id: 660561-001 S

SW8015P Prep Method:

Date Prep: 05.05.2020 MSD Sample Id: 660561-001 SD

MS RPD Parent Spike MS MSD MSD Limits %RPD Units Analysis **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.3 1010 1150 114 35 05.06.2020 05:14 1120 70-135 3 112 mg/kg 05.06.2020 05:14 1010 35 mg/kg Diesel Range Organics (DRO) < 50.3 1110 110 1200 120 70-135 8

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		114		70-135	%	05.06.2020 05:14
o-Terphenyl	104		102		70-135	%	05.06.2020 05:14

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125198 Matrix: Solid

Prep Method:

SW5035A

Date Prep: 05.05.2020

7702756-1-BLK LCS Sample Id: 7702756-1-BKS LCSD Sample Id: 7702756-1-BSD MB Sample Id:

Parameter	MB	Spike	LCS	LCS	LCSD	LCSD	Limits	%RPD	RPD	Units	Analysis	
1 ai ainetei	Result	Amount	Result	%Rec	Result	%Rec			Limit		Date	•
Benzene	< 0.00200	0.100	0.113	113	0.107	107	70-130	5	35	mg/kg	05.06.2020 01:53	
Toluene	< 0.00200	0.100	0.101	101	0.0945	95	70-130	7	35	mg/kg	05.06.2020 01:53	
Ethylbenzene	< 0.00200	0.100	0.0937	94	0.0860	86	71-129	9	35	mg/kg	05.06.2020 01:53	
m,p-Xylenes	< 0.00400	0.200	0.180	90	0.164	82	70-135	9	35	mg/kg	05.06.2020 01:53	
o-Xylene	< 0.00200	0.100	0.0943	94	0.0878	88	71-133	7	35	mg/kg	05.06.2020 01:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		109		109		70-130	%	05.06.2020 01:53
4-Bromofluorobenzene	105		99		98		70-130	%	05.06.2020 01:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125198

Parent Sample Id: 660561-001 Matrix: Solid

MS Sample Id: 660561-001 S

Prep Method: SW5035A Date Prep:

05.05.2020

MSD Sample Id: 660561-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	I
Benzene	< 0.00199	0.0996	0.127	128	0.129	128	70-130	2	35	mg/kg	05.06.2020 02:35	
Toluene	< 0.00199	0.0996	0.128	129	0.124	123	70-130	3	35	mg/kg	05.06.2020 02:35	
Ethylbenzene	< 0.00199	0.0996	0.128	129	0.119	118	71-129	7	35	mg/kg	05.06.2020 02:35	
m,p-Xylenes	< 0.00398	0.199	0.246	124	0.258	128	70-135	5	35	mg/kg	05.06.2020 02:35	
o-Xylene	< 0.00199	0.0996	0.128	129	0.133	132	71-133	4	35	mg/kg	05.06.2020 02:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	05.06.2020 02:35
4-Bromofluorobenzene	102		101		70-130	%	05.06.2020 02:35

Project Manager: Dan Moin

Company Name:

City, State ZIP:

Midland

City, State ZIP:

arlsbad

0

State of Project:

Reporting:Level II Level III PST/JST TRRP Level IV

Phone: (432)

Chain of Custody

Work Order No:

www.xenco.com

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Work Order Comments

3300 North A Street Environmental 79705 100 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 889-6701 Perman Office Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440 Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Company Name: Bill to: (if differen Address: Energy Littrel 8822 Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

ANALYSIS REQUEST ANALYSIS RE			N Trick	Relinquished by: (Signature)	Notice: Signature of this document and relinquis of service. Xenco will be liable only for the cost	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed		ES09	FSOS	FSO7	FS06	TS05	+SO4	F803	-SO2	TSO	Sample Identification	cample custody seats: Tes	Yes	(S)	Temperature (°C):		PO#: 3/24/20 S	Tat	Project Location Eddy	Project Number: 01292	1	7
Ni K Se Ag SiO2 Na Received by: (Signati		7		pplied to each project and a charge of Received by: (S	shment of samples constitutes a valid		<	16	15	00	09	10	io		l'u	5/4/20	Sampled	N/A	NA	\sim	In (g Ther			m	county	CH30	door	77
Ni K Se Ag SiO2 Na Received by: (Signati			1	\$5 for each sample submitted t	purchase order from client com	CRA 13PPM Texas 1	00										Depth	13	2-0-	07	(Yes No		Due Date:		Q	Turn Around	
Ni K Se Ag SiO2 Na Received by: (Signati	0)	09:33	re/ ime	expenses incurred by the client if such losses are due to circumstan to Xenco, but not analyzed. These terms will be enforced unless previous terms with the enforced unless previous terms.	pany to Xenco, its affiliates and subcontractors. It assigns standard	1 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe	<-									XXX	TPI	4 (EP (E	A S	30)=8	02	-			ANA	ISHA COLLY CHILD LEUN'COLL
Preservative Codes MeOH: Me None: NO H12S04: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn TAT starts the day received by the lab, if received by 4:00pm Sample Comments TI Sn U V Zn 1/245.1/7470 /7471: Hg Date/Time				ces beyond the control usly negotiated.	AG II U 1631 / 245.1 / 7470 terms and conditions	Mn Mo Ni K Se Ag																					EQUEST	Deliverables: EDD L ADaPT L

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Craslbad, NM (432) 704-5440

Project Manager: Company Name:

Dan

3300 North A I Environmental Moir

Street IR.

Permian Office

Company Name: Bill to: (if different)

Energy, Inc

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

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Littrell

Work Order No:

	takin -	Relinquished by: (Signature)	Produce: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Circle Method(s) and Metal(s) to be analyzed	Ш		To the second se	/	FSI3	FSI2 R		e Identification N	Sample Custody Seals:	Cooler Custody Seals: Yes No N/A	Received Intacty No	SAMPLE RECEIPT Temp Blank:	PO#: 3/24/20 Spill date	1	Project Location Eddy County	Project Number: (0)2920043	Project Name: Nach Doo 19	Phone: (432) 236-3849	and, IX	3 1
7	0	Received by: (Signature)	nples constitutes a valid purchase order nd shall not assume any responsibility fo project and a charge of \$5 for each sam	9RCRA 13PPM 1/yzed TCLP / SPLP 6010:			>		5/4/20 1340	5/4/20 1344	5/4/20 1620	Date Time Sampled Sampled	Total Containers:	Correction Factor:	Thermometer ID	Yes No Wet Ice:	Quote #:	Due Date:	Rush:	Routine	18-16 Turn Around		14105	010
	H	Date/Time	rom client company to Xenco, its affiliates a rany losses or expenses incurred by the cli-	8RCRA 13PPM Texas 11 AI Sb As Ba Be B TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr					× X	8, - X X	- × ×	Numb TPH BTE	(E X(PA EF	80 PA ())= 8	302	_		Code		Email: 15mith@ Henv.com, dr	City, State ZIP: Car Space	
0 4 1	2	Relinquished by: (Signature)	and subcontractors. It assigns standard terms and conditions ent if such losses are due to circumstances beyond the control ness terms will be enforced unless previously negotiated.	B Cd Ca Cr Co Cu Fe Pb Mg Cr Co Cu Pb Mn Mo Ni Se Ag																	ANALYSIS REQUEST	moir@ Henv.com	NM 88220	
		Received by: (Signature)	s and conditions eyond the control negotiated.	K Se Ag SiO2 Na																	UEST	Deliverables: EDD ADa	Reporting:Level III PST/UST TRRP Level IV	
		ure) Date/Time		Sr Tl Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg								Sample Comments	TAT starts the day recevied by the lab, if received by 4:00pm	Zn Acetate+ NaOH: Zn	NaOH: Na	HCL: HL	H2S04: H2	HNO3: HN	Necoli, Me	Macou: Ma	Preservative Codes	ADaPT Other:	ST/UST ☐TRRP ☐ Level IV ☐	

Revised Date 022619 Rev. 2019.1

Received by OCD: 6/18/2020 1:24:31 PM XENCO

Certificate of Analysis Summary 661479

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id: Contact: 012920043

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Wed 05.13.2020 14:03

Report Date: 05.14.2020 12:26

Project Manager: Jessica Kramer

	Lab Id:	661479-0	001	661479-0	002		
Analysis Requested	Field Id:	FS04A	.	FS07A	1		
Analysis Requested	Depth:	8.5- ft		8.5- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	05.13.2020	12:16	05.13.2020	12:20		
BTEX by EPA 8021B	Extracted:	05.13.2020	17:06	05.13.2020	17:06		
	Analyzed:	05.13.2020	19:22	05.13.2020	19:42		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00202	0.00202	< 0.00199	0.00199		
Toluene		< 0.00202	0.00202	< 0.00199	0.00199		
Ethylbenzene		< 0.00202	0.00202	< 0.00199	0.00199		
m,p-Xylenes		< 0.00404	0.00404	< 0.00398	0.00398		
o-Xylene		< 0.00202	0.00202	< 0.00199	0.00199		
Total Xylenes		< 0.00202	0.00202	< 0.00199	0.00199		
Total BTEX		< 0.00202	0.00202	< 0.00199	0.00199		
Chloride by EPA 300	Extracted:	05.13.2020	16:00	05.13.2020	16:00		
	Analyzed:	05.13.2020	17:42	05.13.2020	17:48		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		707	99.8	184	100		
TPH by SW8015 Mod	Extracted:	05.13.2020	17:30	05.13.2020	17:30		
	Analyzed:	05.14.2020	04:17	05.14.2020	04:38		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	< 50.2	50.2		
Diesel Range Organics (DRO)		<49.9	49.9	< 50.2	50.2		
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	< 50.2	50.2	_	
Total GRO-DRO		<49.9	49.9	< 50.2	50.2		
Total TPH		<49.9	49.9	< 50.2	50.2		

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

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

Jessica Kramer Project Manager

Jessica Vramer



Analytical Report 661479

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 05.14.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483)



05.14.2020

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

Reference: XENCO Report No(s): 661479

Nash Deep 18-16

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661479. 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. 661479 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 661479

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS04A	S	05.13.2020 12:16	8.5 ft	661479-001
FS07A	S	05.13.2020 12:20	8.5 ft	661479-002

CASE NARRATIVE

XENCO

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

 Project ID:
 012920043
 Report Date:
 05.14.2020

 Work Order Number(s):
 661479
 Date Received:
 05.13.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS04A

Matrix:

Soil

Date Received:05.13.2020 14:03

Lab Sample Id: 661479-001

Date Collected: 05.13.2020 12:16

Sample Depth: 8.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

05.13.2020 16:00

Basis:

Wet Weight

Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	707	99.8	mg/kg	05.13.2020 17:42		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:
Analyst:

DTH DTH

Date Prep:

05.13.2020 17:30

Basis:

% Moisture:

Wet Weight

Seq Number: 3125891

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	05.14.2020 04:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	05.14.2020 04:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	05.14.2020 04:17	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	05.14.2020 04:17	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	05.14.2020 04:17	U	1
Surrogate	(Cas Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	105	%	70-135	05.14.2020 04:17
o-Terphenyl	84-15-1	119	%	70-135	05.14.2020 04:17



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS04A

Matrix: Soil Date Received:05.13.2020 14:03

Lab Sample Id: 661479-001

Date Collected: 05.13.2020 12:16

Sample Depth: 8.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

05.13.2020 17:06

Basis:

Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	05.13.2020 19:22	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	05.13.2020 19:22	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	05.13.2020 19:22	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404		mg/kg	05.13.2020 19:22	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	05.13.2020 19:22	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	05.13.2020 19:22	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	05.13.2020 19:22	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.13.2020 19:22	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.13.2020 19:22	



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS07A Matrix:

Soil

Date Received:05.13.2020 14:03

Lab Sample Id: 661479-002

Date Collected: 05.13.2020 12:20

Sample Depth: 8.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep:

05.13.2020 16:00 Basis:

Wet Weight

Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	184	100	mg/kg	05.13.2020 17:48		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

05.14.2020 04:38

DTH Tech:

% Moisture:

Analyst: DTH

o-Terphenyl

Date Prep: 05.13.2020 17:30 Basis:

70-135

Wet Weight

Seq Number: 3125891

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	05.14.2020 04:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	05.14.2020 04:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	05.14.2020 04:38	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	05.14.2020 04:38	U	1
Total TPH	PHC635	<50.2	50.2		mg/kg	05.14.2020 04:38	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	103	%	70-135	05.14.2020 04:38		

116

84-15-1



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: **FS07A**Lab Sample Id: 661479-002

Matrix:

Soil

Date Received:05.13.2020 14:03

Date Collected: 05.13.2020 12:20

Sample Depth: 8.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst: MA

MAB

Date Prep: 05.13.2020 17:06

Basis:

Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	05.13.2020 19:42	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	05.13.2020 19:42	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	05.13.2020 19:42	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	05.13.2020 19:42	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	05.13.2020 19:42	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	05.13.2020 19:42	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	05.13.2020 19:42	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Fla
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.13.2020 19:42	
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.13.2020 19:42	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

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

QC Summary 661479



LT Environmental, Inc.

Nash Deep 18-16

7703271-1-BKS

Analytical Method: Chloride by EPA 300

Seq Number: 3125881

7703271-1-BLK

Matrix: Solid

E300P Prep Method:

05.13.2020 Date Prep:

LCSD Sample Id: 7703271-1-BSD

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

LCS Sample Id:

Units Analysis Flag Date

Chloride <10.0 250 251 100 250 90-110 0 20 05.13.2020 15:51 100 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

MB Sample Id:

3125881

Matrix: Soil

Prep Method: Date Prep: 05.13.2020

E300P

Parent Sample Id:

661356-020

661356-020 S MS Sample Id:

MSD Sample Id: 661356-020 SD

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

20 05.13.2020 16:08 Chloride 123 200 312 95 312 94 90-110 0 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3125881

Prep Method:

E300P

Parent Sample Id:

661356-030

Matrix: Soil MS Sample Id: 661356-030 S Date Prep:

05.13.2020 MSD Sample Id: 661356-030 SD

Flag

Flag

Flag

Spike **RPD Parent** MS MS %RPD Units MSD **MSD** Limits Analysis **Parameter**

Result Result Limit Date Amount %Rec Result %Rec Chloride 28.6 0 20 05.13.2020 17:30 200 215 93 216 94 90-110 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

3125891

Matrix: Solid

Prep Method:

SW8015P

Date Prep: 05.13.2020

MB Sample Id: 7703300-1-BLK LCS Sample Id: 7703300-1-BKS LCSD Sample Id: 7703300-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 05.13.2020 22:04 < 50.0 905 91 903 35 1000 90 70-135 0 mg/kg 05.13.2020 22:04 Diesel Range Organics (DRO) 1050 105 1050 105 70-135 35 < 50.0 1000 0 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec Flag %Rec Flag Flag Date %Rec 05.13.2020 22:04 1-Chlorooctane 100 116 114 70-135 % 05.13.2020 22:04 o-Terphenyl 110 116 116 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

Parameter

3125891

Matrix: Solid

Prep Method:

SW8015P

Date Prep:

05.13.2020

MB Sample Id: 7703300-1-BLK

MBResult

Units

Analysis

Motor Oil Range Hydrocarbons (MRO)

< 50.0

Date

05.13.2020 21:43 mg/kg

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

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

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

LCS = Laboratory Control Sample = Parent Result

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

Flag

Flag

Flag



QC Summary 661479

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125891

Parent Sample Id:

661488-001

Matrix: Soil MS Sample Id: 661488-001 S

SW8015P Prep Method:

Date Prep: 05.13.2020

MSD Sample Id: 661488-001 SD

MS %RPD RPD **Parent** Spike MS MSD MSD Limits Units Analysis **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.2 1000 954 95 914 4 35 05.13.2020 23:07 91 70-135 mg/kg 05.13.2020 23:07 1230 70-135 5 35 mg/kg Diesel Range Organics (DRO) 113 1000 112 1170 106

MSD Units Analysis MS MS **MSD** Limits **Surrogate** %Rec Flag Flag Date %Rec 05.13.2020 23:07 1-Chlorooctane 124 119 70-135 % 05.13.2020 23:07 o-Terphenyl 120 117 70-135 %

Analytical Method: BTEX by EPA 8021B

3125871 Seq Number:

MB Sample Id:

7703274-1-BLK

Matrix: Solid

LCS Sample Id: 7703274-1-BKS

SW5035A

Date Prep: 05.13.2020

LCSD Sample Id: 7703274-1-BSD

Prep Method:

Danamatan	MB	Spike	LCS	LCS	LCSD	LCSD	Limits	%RPD	RPD	Units	Analysis
Parameter	Result	Amount	Result	%Rec	Result	%Rec			Limit		Date
Benzene	< 0.00200	0.100	0.108	108	0.106	106	70-130	2	35	mg/kg	05.13.2020 17:19
Toluene	< 0.00200	0.100	0.104	104	0.104	104	70-130	0	35	mg/kg	05.13.2020 17:19
Ethylbenzene	< 0.00200	0.100	0.0991	99	0.0982	98	71-129	1	35	mg/kg	05.13.2020 17:19
m,p-Xylenes	< 0.00400	0.200	0.205	103	0.203	102	70-135	1	35	mg/kg	05.13.2020 17:19
o-Xylene	< 0.00200	0.100	0.104	104	0.102	102	71-133	2	35	mg/kg	05.13.2020 17:19

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		104		103		70-130	%	05.13.2020 17:19
4-Bromofluorobenzene	97		92		94		70-130	%	05.13.2020 17:19

Analytical Method: BTEX by EPA 8021B

Seq Number: Parent Sample Id: 3125871

661356-020

Matrix: Soil

MS Sample Id: 661356-020 S

Prep Method: Date Prep: SW5035A

05.13.2020

MSD Sample Id: 661356-020 SD

Parent RPD Spike MS MS MSD MSD Limits %RPD Units Analysis **Parameter** Limit Result Date Result Amount %Rec Result %Rec 05.13.2020 18:00 < 0.00200 0.0998 0.108 108 0.104 70-130 4 35 Benzene 104 mg/kg 05.13.2020 18:00 103 70-130 35 Toluene < 0.00200 0.0998 0.103 0.0998 100 3 mg/kg Ethylbenzene < 0.00200 0.0998 0.0962 96 0.0920 92 71-129 4 35 mg/kg 05.13.2020 18:00 < 0.00399 0.200 0.198 99 0.188 70-135 5 35 05.13.2020 18:00 m,p-Xylenes 94 mg/kg o-Xylene < 0.00200 0.0998 0.100 100 0.0950 95 71-133 5 35 05.13.2020 18:00 mg/kg

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		109		70-130	%	05.13.2020 18:00
4-Bromofluorobenzene	95		95		70-130	%	05.13.2020 18:00

ABORATORIES

Project Manager: Company Name:

Address:

3300 North A Street

LT Environmental Dan Moir

Inc., Permian Office

Company Name:

3104 E Greane St

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

www.xenco.com

Page

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State of Project:

Chain of Custody

Work Order No:

Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Crasibad, NM (432) 704-5440 Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

Littre

	atyl	Relinquished by: (Signature)	Notice: Signature of this document and relinque of service. Xenco will be liable only for the coor Xenco. A minimum charge of \$75.00 will be	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed		_	Tal.	FSO+A	FSOHA	Sample Identification	Sample Custody Seals: Yes		Received Intact: Yes	Temperature (°C):	SAMPLE RECEIPT	PO#: 3/24/20	Sampler's Name: Foth	Project Location Eddy	Project Number: 0/292	Project Name: Nash Deep	Phone: (432) 2	
	4	Received by	uishment of samples constitutes a st of samples and shall not assum applied to each project and a cha					R 5/13/20	5/13/20	Matrix Sampled	No N/A Total	N/A C	No No		Temp Blank: Yes No	20 spill date Quote #:	to Smith	county	20043	Deep 18-16	236-3849	COLENA
		Received by: (Signature)	valid purchase order from clive any responsibility for any longe of \$5 for each sample sub-	8RCRA 13PPM Texas 1 TCLP / SPLP 6010: 8RCRA	/			1220 8.5	Ġ	Time Depth	Total Containers:	Correction Factor: -0-2	TUMBO7	5	Wet Ice: Yes No	•	Due Date:	Rush: 24 hrs	Routine	Turn Around	Email: 15Mit	City,
	5/13/20 14:03 2	Date/Time Relinquished by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	1 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se				XXX	X	_	+ (EI (E	PA	81)(e)=	800).0)	Code	ANALYSIS REQUEST	tomitho Itenvicom, amoin altenvicom	City, State ZIF: IL OIL ISDUICH INTIL TOLCO
		e) Received by: (Signature)	ms and conditions beyond the control iy negotiated.	Mn Mo Ni K Se Ag SiO2 Na TI U						S		TAT starts	Zn Aceta	NaOH: Na	HCL: HL	H2S04: H2	HNO3: HN	None: NO	меон: ме		Deliverables: EDD	
Revised Date 022619 Rev. 2019.1		Date/Time		Sr TI Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg						Sample Comments	received by 4:00pm	TAT starts the day recevied by the lab, if	Zn Acetate+ NaOH: Zn	ស៊		12	Ž	O	/le	Preservative Codes	Other:	

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 05.13.2020 02.03.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 661479

Temperature Measuring device used: T-NM-007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1.6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping conta	iner/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	?	Yes	
#6*Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		Yes	
#9 Chain of Custody signed when relinquis	hed/ 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	Samples received in bulk containers
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero heads	pace?	N/A	

* N/1a4	ha same	latad far	ofter being	dalistanta	faamalaa	 minaina in i	the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 05.13.2020

Checklist reviewed by: Jession Veramer

Date: 05.14.2020

Certificate of Analysis Summary 662558

LT Environmental, Inc., Arvada, CO

Project Name: Nash Deep 18-16

Project Id: Contact: 012920043

Dan Moir

Project Location:

Eddy County

Date Received in Lab: Tue 05.26.2020 11:55

Report Date: 05.27.2020 13:23

Project Manager: Jessica Kramer

	Lab Id:	662558-001			
4 1 . D	Field Id:	FS04B			
Analysis Requested	Depth:	8.5- ft			
	Matrix:	SOIL			
	Sampled:	05.26.2020 09:55			
BTEX by EPA 8021B	Extracted:	05.26.2020 14:52			
	Analyzed:	05.26.2020 16:55			
	Units/RL:	mg/kg RL			
Benzene		< 0.00200 0.00200			
Toluene		< 0.00200 0.00200			
Ethylbenzene		<0.00200 0.00200			
m,p-Xylenes		<0.00400 0.00400			
o-Xylene		< 0.00200 0.00200			
Total Xylenes		<0.00200 0.00200			
Total BTEX		<0.00200 0.00200			
Chloride by EPA 300	Extracted:	05.26.2020 15:00			
	Analyzed:	05.26.2020 15:43			
	Units/RL:	mg/kg RL			
Chloride		300 99.4			
TPH by SW8015 Mod	Extracted:	05.26.2020 13:45			
	Analyzed:	05.26.2020 14:09			
	Units/RL:	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3			
Diesel Range Organics (DRO)		<50.3 50.3			
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3			
Total GRO-DRO		<50.3 50.3			
Total TPH		<50.3 50.3			

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

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

M

John Builes Project Manager



Analytical Report 662558

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash Deep 18-16 012920043 05.27.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-6)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.27.2020

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

Reference: XENCO Report No(s): 662558

Nash Deep 18-16

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 662558. 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. 662558 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,

John Builes

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 662558

LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample IdMatrixDate CollectedSample DepthLab Sample IdFS04BS05.26.2020 09:558.5 ft662558-001

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Nash Deep 18-16

Project ID: 012920043 Work Order Number(s): 662558

Report Date: 05.27.2020 Date Received: 05.26.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS04B Matrix:

Date Received:05.26.2020 11:55

Lab Sample Id: 662558-001

Soil Date Collected: 05.26.2020 09:55

Sample Depth: 8.5 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

MAB

Date Prep:

05.26.2020 15:00

% Moisture: Basis:

Wet Weight

Seq Number: 3127046

Tech: Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	300	99.4	mg/kg	05.26.2020 15:43		10

Analytical Method: TPH by SW8015 Mod

DTH

Tech:

Seq Number: 3127057

Analyst: DTH Date Prep:

05.26.2020 13:45

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Flag

Cas Number **Parameter** Result RLUnits **Analysis Date** Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 < 50.3 50.3 05.26.2020 14:09 U mg/kg Diesel Range Organics (DRO) C10C28DRO 05.26.2020 14:09 < 50.3 50.3 U 1 mg/kg Motor Oil Range Hydrocarbons (MRO) PHCG2835 50.3 05.26.2020 14:09 U < 50.3 mg/kg 1 Total GRO-DRO PHC628 < 50.3 50.3 mg/kg 05.26.2020 14:09 U Total TPH PHC635 50.3 05.26.2020 14:09 U < 50.3 1 mg/kg

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	80	%	70-135	05.26.2020 14:09
o-Terphenyl	84-15-1	89	%	70-135	05.26.2020 14:09



LT Environmental, Inc., Arvada, CO

Nash Deep 18-16

Sample Id: FS04B Lab Sample Id: 662558-001 Matrix:

Soil

Date Received:05.26.2020 11:55

Date Collected: 05.26.2020 09:55

Sample Depth: 8.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep: 05.26.2020 14:52 Basis:

Wet Weight

Seq Number: 3127038

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	05.26.2020 16:55	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	05.26.2020 16:55	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	05.26.2020 16:55	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	05.26.2020 16:55	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	05.26.2020 16:55	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	05.26.2020 16:55	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	05.26.2020 16:55	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	110	%	70-130	05.26.2020 16:55		
4-Bromofluorobenzene		460-00-4	93	%	70-130	05.26.2020 16:55		



Flagging Criteria

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

BRL Below Reporting Limit.

ND Not Detected.

RLReporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DLMethod Detection Limit

Non-Calculable

SMP Client Sample

BLK

Method Blank

Matrix Spike

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS

MSD: Matrix Spike Duplicate

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

Flag

Flag

Flag

Flag

Flag

QC Summary 662558



LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: Chloride by EPA 300

Seq Number: 3127046

7704078-1-BLK MB Sample Id:

Matrix: Solid

LCS Sample Id: 7704078-1-BKS

E300P Prep Method:

RPD

Date Prep: 05.26.2020

LCSD Sample Id: 7704078-1-BSD

LCS MB Spike LCS Limits %RPD Units Analysis LCSD LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date Chloride <10.0 250 250 100 250 90-110 0 20 05.26.2020 15:31 100 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

Parent Sample Id:

3127046 662558-001

Matrix: Soil

662558-001 S MS Sample Id:

Prep Method:

E300P

Date Prep: 05.26.2020 MSD Sample Id: 662558-001 SD

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

20 05.26.2020 15:49 Chloride 300 199 495 98 486 93 90-110 2 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3127046

MS

Matrix: Soil

E300P Prep Method:

Date Prep: 05.26.2020

Units

MS Sample Id: 662565-010 S MSD Sample Id: 662565-010 SD Parent Sample Id: 662565-010 MS

Spike **RPD Parent** MSD **MSD** Limits Analysis **Parameter** Result Result Limit Date Amount %Rec Result %Rec Chloride 198 20 05.26.2020 17:11 <9.98 200 99 198 99 90-110 0 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

3127057

Matrix: Solid

Date Prep:

%RPD

SW8015P

Prep Method: 05.26.2020

MB Sample Id: 7704132-1-BLK LCS Sample Id: 7704132-1-BKS LCSD Sample Id: 7704132-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 05.26.2020 12:42 < 50.0 959 940 35 1000 96 94 70-135 2 mg/kg 05.26.2020 12:42 Diesel Range Organics (DRO) 1100 110 1090 109 70-135 35 < 50.0 1000 1 mg/kg

LCS MBMB LCS LCSD Limits Units Analysis LCSD **Surrogate** %Rec %Rec Flag Flag Date Flag %Rec 05.26.2020 12:42 1-Chlorooctane 113 132 128 70-135 % 05.26.2020 12:42 o-Terphenyl 124 126 133 70-135 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3127057

Matrix: Solid

Prep Method:

SW8015P

Date Prep: 05.26.2020

MB Sample Id: 7704132-1-BLK

MB**Parameter**

Result < 50.0

Units

Analysis Date

05.26.2020 12:22 mg/kg

Motor Oil Range Hydrocarbons (MRO)

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

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

Flag

Flag



QC Summary 662558

LT Environmental, Inc.

Nash Deep 18-16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3127057 Parent Sample Id:

662558-001

SW8015P Prep Method: Matrix: Soil Date Prep: 05.26.2020

MS Sample Id: 662558-001 S MSD Sample Id: 662558-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	871	87	872	86	70-135	0	35	mg/kg	05.26.2020 14:29
Diesel Range Organics (DRO)	< 50.2	1000	1010	101	1000	99	70-135	1	35	mg/kg	05.26.2020 14:29

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		100		70-135	%	05.26.2020 14:29
o-Terphenyl	104		100		70-135	%	05.26.2020 14:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3127038

Matrix: Solid

Prep Method:

SW5035A

Date Prep: 05.26.2020 MB Sample Id: 7704075-1-BLK LCS Sample Id: 7704075-1-BKS LCSD Sample Id: 7704075-1-BSD

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	0.108	108	0.109	109	70-130	1	35	mg/kg	05.26.2020 15:13
Toluene	< 0.00200	0.100	0.102	102	0.104	104	70-130	2	35	mg/kg	05.26.2020 15:13
Ethylbenzene	< 0.00200	0.100	0.0938	94	0.0944	94	71-129	1	35	mg/kg	05.26.2020 15:13
m,p-Xylenes	< 0.00400	0.200	0.190	95	0.190	95	70-135	0	35	mg/kg	05.26.2020 15:13
o-Xylene	< 0.00200	0.100	0.0984	98	0.0997	100	71-133	1	35	mg/kg	05.26.2020 15:13

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		104		106		70-130	%	05.26.2020 15:13
4-Bromofluorobenzene	95		89		90		70-130	%	05.26.2020 15:13

Analytical Method: BTEX by EPA 8021B

Seq Number: 3127038

Parent Sample Id: 662558-001 Matrix: Soil

MS Sample Id: 662558-001 S

Prep Method: Date Prep:

SW5035A

05.26.2020

MSD Sample Id: 662558-001 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	0.121	121	0.113	113	70-130	7	35	mg/kg	05.26.2020 15:53	
Toluene	< 0.00200	0.0998	0.116	116	0.108	108	70-130	7	35	mg/kg	05.26.2020 15:53	
Ethylbenzene	< 0.00200	0.0998	0.109	109	0.103	103	71-129	6	35	mg/kg	05.26.2020 15:53	
m,p-Xylenes	< 0.00399	0.200	0.222	111	0.210	105	70-135	6	35	mg/kg	05.26.2020 15:53	
o-Xylene	< 0.00200	0.0998	0.112	112	0.104	104	71-133	7	35	mg/kg	05.26.2020 15:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	05.26.2020 15:53
4-Bromofluorobenzene	87		94		70-130	%	05.26.2020 15:53

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

Work Order No: (2) 27558

Page 11 of 11

TAT starts the day recevied by the lab, if

received by 4:00pm

Sample Comments

Zn Acetate+ NaOH: Zn

NaOH: Na HCL: HL H2S04: H2

Received by: (Signature)

Date/Time

Revised Date 022619 Rev. 2019.1

Ag

SiO2 Na Sr Tl Sn U V Zn

1631 / 245.1 / 7470 / 7471 : Hg

Final 1.000

Preservative Codes

HNO3: HN

None: NO MeOH: Me Reporting:Level III Level III PST/UST TRRP Level IV

ADaPT

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

www.xenco.com

Page

State of Project:

Deliverables: EDD