

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.06479 Longitude -103.91825
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Ross Ranch 6	Site Type	Battery
Date Release Discovered	11-28-2020	API#	(if applicable)

Unit Letter	Section	Township	Range	County
O	6	26S	30E	Eddy

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

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	17.41	Volume Recovered (bbls)	10.95
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	221.05	Volume Recovered (bbls)	139.05
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

Cause of Release: The supply gas regulator for the heater treater pneumatic dumps malfunctioned. The vessel ran over the top and out of the PRV. A third-party contractor has been retained for remediation purposes.

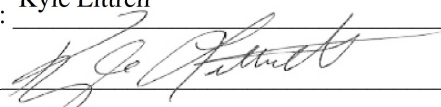
State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? A release equal to or greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Kyle Littrell to 'Bratcher, Mike, EMNRD'; 'Hamlet, Robert, EMNRD'; 'Venegas, Victoria, EMNRD'; 'Griswold, Jim, EMNRD'; 'BLM_NM_CFO_Spill@blm.gov'; 'Morgan, Crisha A' on Saturday, November 28, 2020 2:54 PM via email.	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: NA	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature: 	Date: 12-10-20
email: Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331
<u>OCD Only</u>	
Received by: _____	Date: _____

Location:	Ross Ranch 6 Battery	
Spill Date:	11/28/2020	
Area 1		
Approximate Area =	17548.00	sq. ft.
Average Saturation (or depth) of spill =	0.13	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.36	bbls
Total Produced Water =	4.53	bbls
Area 2		
Approximate Area =	6065.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.49	bbls
Total Produced Water =	6.26	bbls
Area 3		
Approximate Area =	6901.00	sq. ft.
Average Saturation (or depth) of spill =	5.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	16.56	bbls
Total Produced Water =	210.26	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	17.41	bbls
Total Produced Water =	221.05	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	10.95	bbls
Total Produced Water =	139.05	bbls

Incident ID	NAPP2034638293
District RP	
Facility ID	
Application ID	

Remediation Plan


Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: Environmental Manager
Signature:  Date: 5-25-2021
email: Kyle.Littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: Robert Hamlet Date: 9/8/2021

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Robert Hamlet Date: 9/8/2021



WSP USA

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

May 25, 2020

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

**Re: Remediation Work Plan
Ross Ranch 6
Incident Number NAPP2034638293
Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Remediation Work Plan detailing site assessment, soil sampling activities, and preliminary remediation efforts completed to date and proposing additional remediation and soil sampling activities at the Ross Ranch 6 (Site) in Unit O, Section 6, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the remediation and soil sampling activities completed to date was to address impacts to soil resulting from a release of crude oil and produced water at the Site, by safely excavating immediate impacts to soil. Based on field observations, field screening activities, and laboratory analytical results from soil sampling activities, XTO is submitting this Remediation Work Plan, describing soil sampling and initial response efforts that have occurred and proposing additional remediation activities.

RELEASE BACKGROUND

On November 28, 2020, the supply gas regulator for the heater treater pneumatic dumps malfunctioned and resulted in the release of approximately 221.05 barrels (bbls) of produced water and 17.41 bbls of crude oil onto the caliche well pad and adjacent pasture. The release traveled approximately 4,395 feet west into the pasture through a drainage and caused an overspray immediately west of the well pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 139.05 bbls of produced water and 10.95 bbls of crude oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on November 28, 2020 and with a subsequent Release Notification and Corrective Action Form C-141 (Form C-141) on December 10, 2020. The release was assigned Incident Number NAPP2034638293.



SITE CHARACTERIZATION

WSP 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 greater than 100 feet below ground surface (bgs) based on the nearby groundwater well data. The nearest permitted water wells with depth to water data are New Mexico Office of the State Engineer (NMOSE) well C-01360, located approximately 0.56 miles east of the Site and well C-01361, located approximately 0.70 miles east of the Site. Well C-01360 was measured in 1983 has a reported depth to groundwater of 186 feet bgs; well C-01361 was measured in 2003 has a reported depth to groundwater of 180 feet bgs (Attachment 1). Depth to water data for wells C-01360 and C-01361 was referenced for groundwater determination for Incident Number NRM2009458386, which was located on the same Ross Ranch 6 pad. The wells were approximately 0.55 miles and 0.66 miles east of the release and closure of the release, including site characterization, was approved by the NMOCD on September 3, 2020.

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, and church. 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 medium-potential karst area. Potential receptors identified during Site Characterization are displayed on Figure 1.

WATERCOURSE SURVEY

On March 25, 2021, WSP personnel conducted a field investigation to confirm the presence of a potential significant watercourse identified in a desktop survey using the United States Fish and



SURVEY PHOTO 1: VIEW SOUTHEAST SHOWING STAINED SOIL IN AN EROSIONAL DRAINAGE.

Wildlife Service (USFWS) online database, National Wetland Inventory (Wetland Mapper). Wetland Mapper is often used for initial evaluation of significant watercourses in response to reportable releases as required in the site characterization defined in 19.15.29.11.A(4) of the New Mexico Administrative Code (NMAC).

Field verification is sometimes necessary to

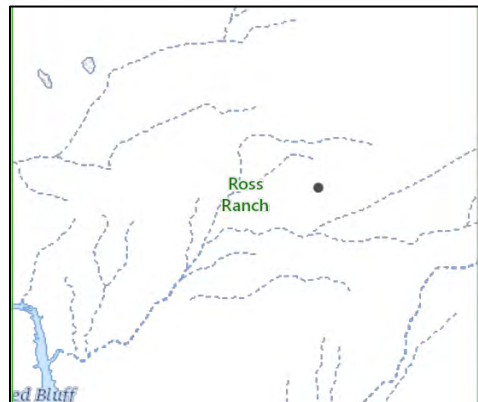


DIAGRAM 2: VIEW OF THE SITE LOCATION (GRAY CIRCLE) UTILIZING THE CURRENT USGS 7.5 MINUTE QUADRANGLE HYDROLOGY BASE LAYER MAP. REFERENCE:

[HTTPS://VIEWER.NATIONALMAP.GOV/BASIC/#NHD](https://viewer.nationalmap.gov/basic/#NHD)



District II

Page 3

measure the distance of the feature from the release extent and to confirm the feature modeled by the USFWS complies with the definition of a significant watercourse per Subsection P of 19.15.17.7 NMAC. Specifically, the definition in Subsection P of 19.15.17.7 NMAC requires a defined bed and bank and either named or identified by a dashed blue line on USGS 7.5-minute



SURVEY PHOTO 2: VIEW NORTHEAST OF AN EROSIONAL RUT WITH SOIL STAINING FROM THE RELEASE.

quadrangle map or the next lower order tributary with a defined bed and bank of such watercourse. Prior to the field investigation, WSP determined the surface feature did not present the preliminary requirements of a significant watercourse such that it was not identified by a dashed blue line on the current USGS 7.5-minute quadrangle map and did not reveal aerial properties of a next lower order tributary connecting to a significant watercourse.

No bed or bank was identified during the visual field survey of the watercourse. Only erosional paths or swales and ruts aligned with the topographic gradient were visible (Survey Photo 1 and survey Photo 2). The drainage did not appear to connect to a larger watercourse.

There was no evidence of fluvial deposition inside the erosional features, and they did not connect to other watercourses. More detailed results and photographic



SURVEY PHOTO 3: VIEW EAST SHOWING THE FARTHEST EXTENT OF SOIL STAINING FROM THE RELEASE (OVER ROW). NO BED OR BANK IS EVIDENT.



SURVEY PHOTO 4: VIEW SOUTHWEST SHOWING THE END OF THE DRAINAGE FEATURE SPLAYING OUT ALONG THE DESERT FLOOR. NO BED OR BANK IS EVIDENT.

evidence are provided in Figure 2. The closest feature

with a defined bed and bank appears to be approximately 1,892 feet to the north (shown on the USGS 7.5-minute quadrangle map). Based on the observations presented, there are no significant watercourses located within 300 feet of the release extent per the definition of a significant watercourse in Subsection P of 19.15.17.7 NMAC. Instead, an erosional channel has formed by drainage of water during storm events. A segment of the erosional channel follows a pre-existing soil disturbance path from installation of a subsurface Chevron water



pipeline, rather than a feature that complies with the definition of a significant watercourse per Subsection P of 19.15.17.7 NMAC. The faint conduit ultimately splays out along the desert floor without connecting to any other features (Survey Photo 4). The survey tract associated with the feature and additional survey photos are presented on Figure 2. The findings of the field survey indicate there is no significant watercourse within 300 feet of the Site.

CLOSURE CRITERIA

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

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

A reclamation standard of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

INITIAL SITE ASSESSMENT ACTIVITIES

On December 4, 2020, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP reviewed and verified the incident description (release source and release location) with visual soil impacts and confirmed that the release impacted the southwest corner of the caliche well pad, the pasture area immediately adjacent to the well pad, and the erosional drainage west of the Site. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 3A and Figure 3B.

DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Between December 23, 2020 and January 11, 2021, WSP personnel were at the Site to conduct delineation activities. WSP utilized a Shaw Tool, Ltd Portable Core Drill to advance twelve coreholes (CH01 through CH12) within and around the release extent to define the horizontal and vertical extent of impacted soil. Coreholes CH01 through CH05 were advanced in the pasture area west of the pad to assess the impacted soil within the erosional drainage. Coreholes CH06 through CH12 were advanced within and around the release area on the well pad and in the overspray area immediately west of the pad. The coreholes were advanced to depths ranging from 4 feet to 8.5 feet bgs. Soil from the coreholes was field screened, at minimum, every 2-foot



interval for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips. Field screening results and observations for each corehole were recorded on lithologic/soil sampling logs which are included in Attachment 2. The corehole locations are presented on Figures 3A and 3B. Photographic documentation from core drilling activities is included in Attachment 3.

The delineation 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 Eurofins Laboratories (Eurofins) 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.

Laboratory analytical results for on pad delineation soil samples collected from coreholes CH06 through CH09, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for off pad delineation soil samples collected from coreholes CH10 through CH12, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the reclamation standard.

Laboratory analytical results for the delineation soil samples collected in the drainage from coreholes CH01 through CH05 indicated that BTEX, TPH-GRO/TPH-DRO, TPH, and/or chloride concentrations exceeded the reclamation standard for TPH and chloride in the top four feet of the subsurface. Laboratory analytical results for the delineation samples collected at subsequent depths provided vertical delineation of the impacted soil and indicated that impacts exceeding Table 1 Closure Criteria in the drainage did not extend deeper than 4 feet bgs. The laboratory analytical results are summarized on the attached Table 1. The complete laboratory analytical reports are included as Attachment 4.

INITIAL REMEDIATION EFFORTS

From April 11, 2021 to April 22, 2021, WSP personnel were onsite to oversee initial excavation activities to remove the top 1-foot of impacted soil within the drainage utilizing heavy equipment and a hydrovac. The excavation area encompassed the pasture release area within the erosional drainage feature, with the exception of areas that were in close proximity to active third-party subsurface pipelines. XTO and WSP are currently coordinating third-party representatives to conduct oversight for remediation activities within or around their respective pipelines. A total of 1,000 cubic yards of impacted soil were removed during initial excavation activities. The



District II

Page 6

impacted soil was transported and properly disposed of at a R360 Facility under XTO approved manifests. Photographic documentation from excavation activities is included in Attachment 3.

REMEDIATION WORK PLAN

Based on laboratory analytical results for the delineation samples from coreholes CH01 through CH05, additional excavation is required in the pasture release area within the drainage. The proposed excavation will extend until concentrations of TPH and chloride are compliant with the reclamation standard and are not anticipated to extend deeper than 4 feet bgs. Excavation activities will be performed utilizing heavy equipment and hydrovac. Following removal of impacted soil, WSP proposes collecting 5-point composite soil samples at least every 500 square feet from the sidewalls and floor of the excavation to confirm that impacted soil is removed to below the reclamation standard. The pasture excavation will be backfilled with locally procured topsoil and recontoured to match pre-existing conditions. Remediation efforts around and within areas containing subsurface pipelines will follow XTO and/or third-party operator safety policies.

Based on laboratory analytical results for delineation samples from coreholes CH06 through CH12, no additional remediation efforts are required on pad or in the pasture area affected by overspray west of the pad. However, surface scraping will be conducted to remove minor surficial staining.

PROPOSED SCHEDULE

XTO will begin the additional proposed remediation activities within 90 days of the date of approval of this work plan by NMOCD.

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

Kind regards,

A handwritten signature in black ink, appearing to read 'Fatima Smith'.

Fatima Smith
Associate Consultant, Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

Ashley L. Ager, P.G.
Assistant Vice President, Geologist



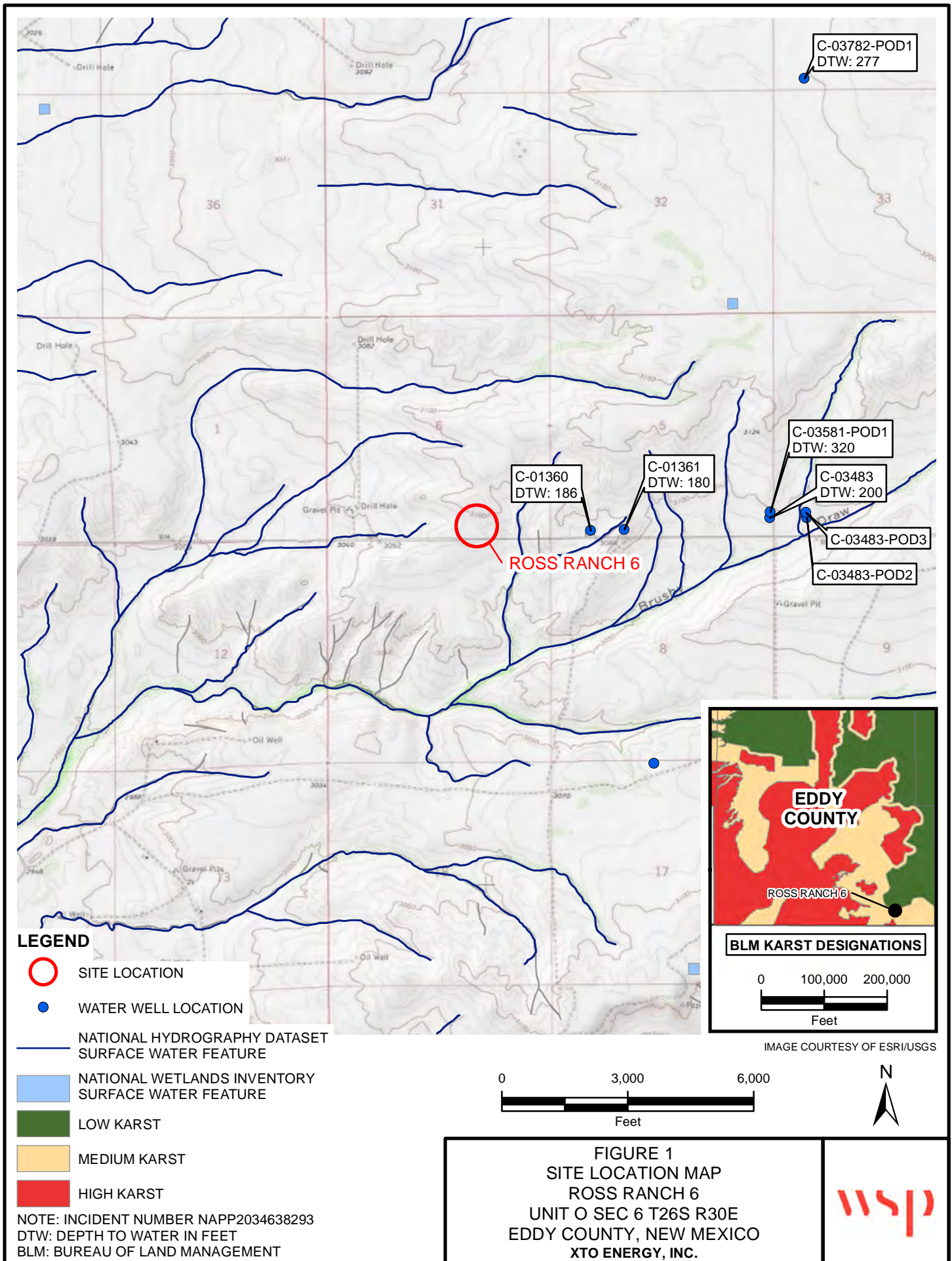
District II
Page 7

cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Watercourse Survey
Figure 3A/3B	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Records
Attachment 2	Lithologic/Soil Sampling Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES



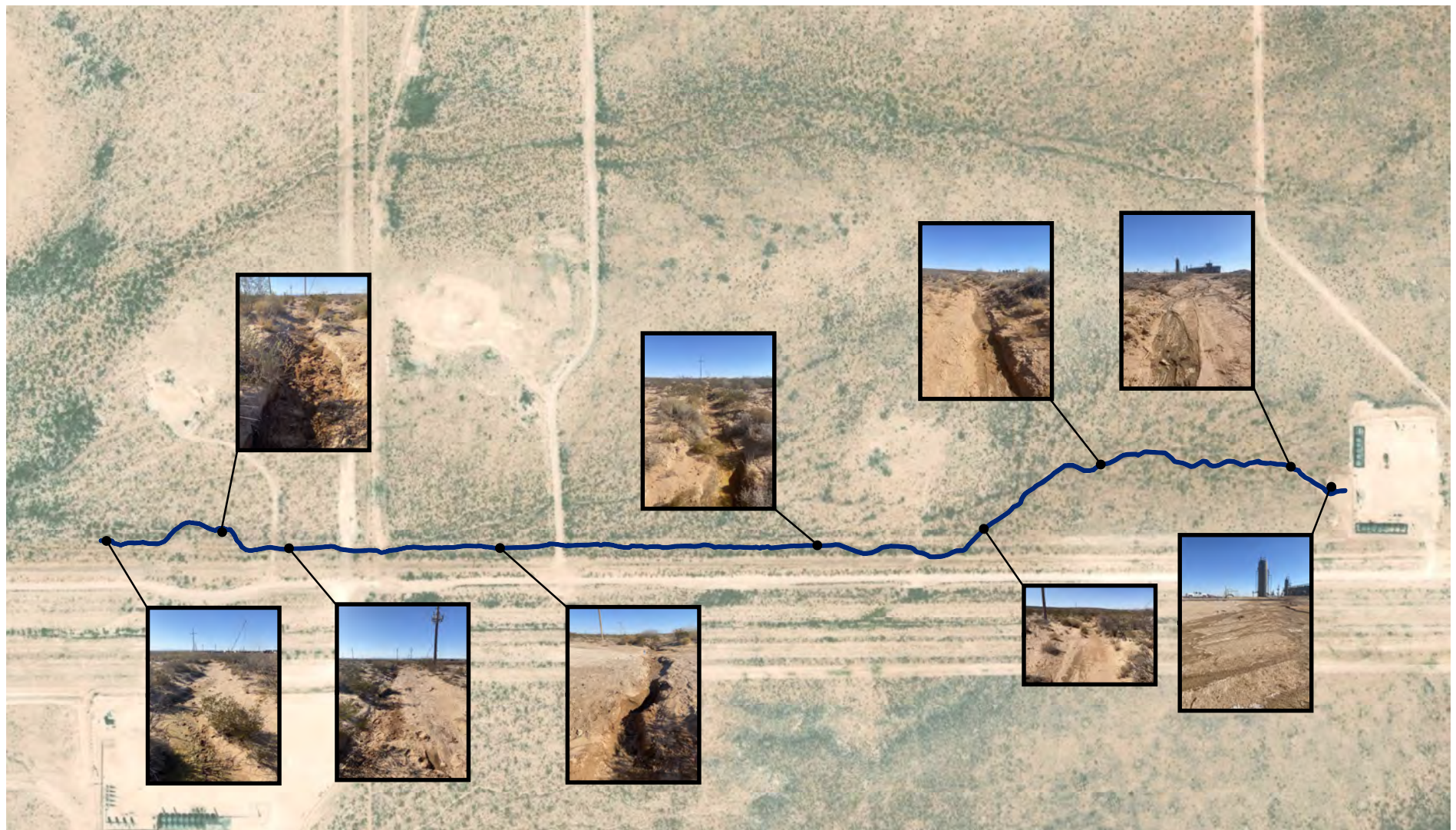


IMAGE COURTESY OF ESRI

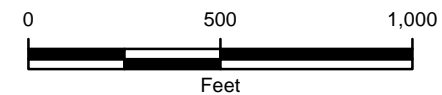
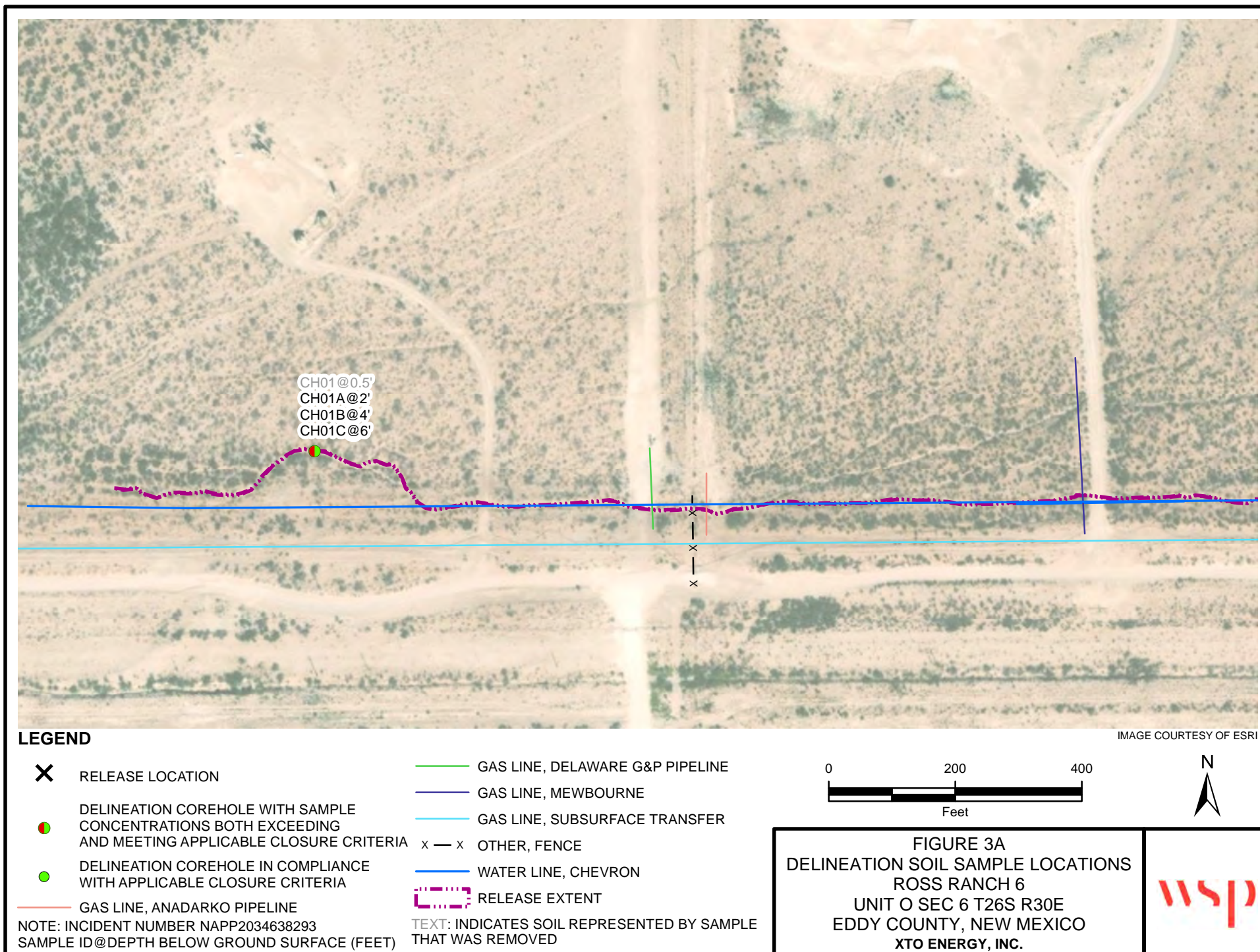
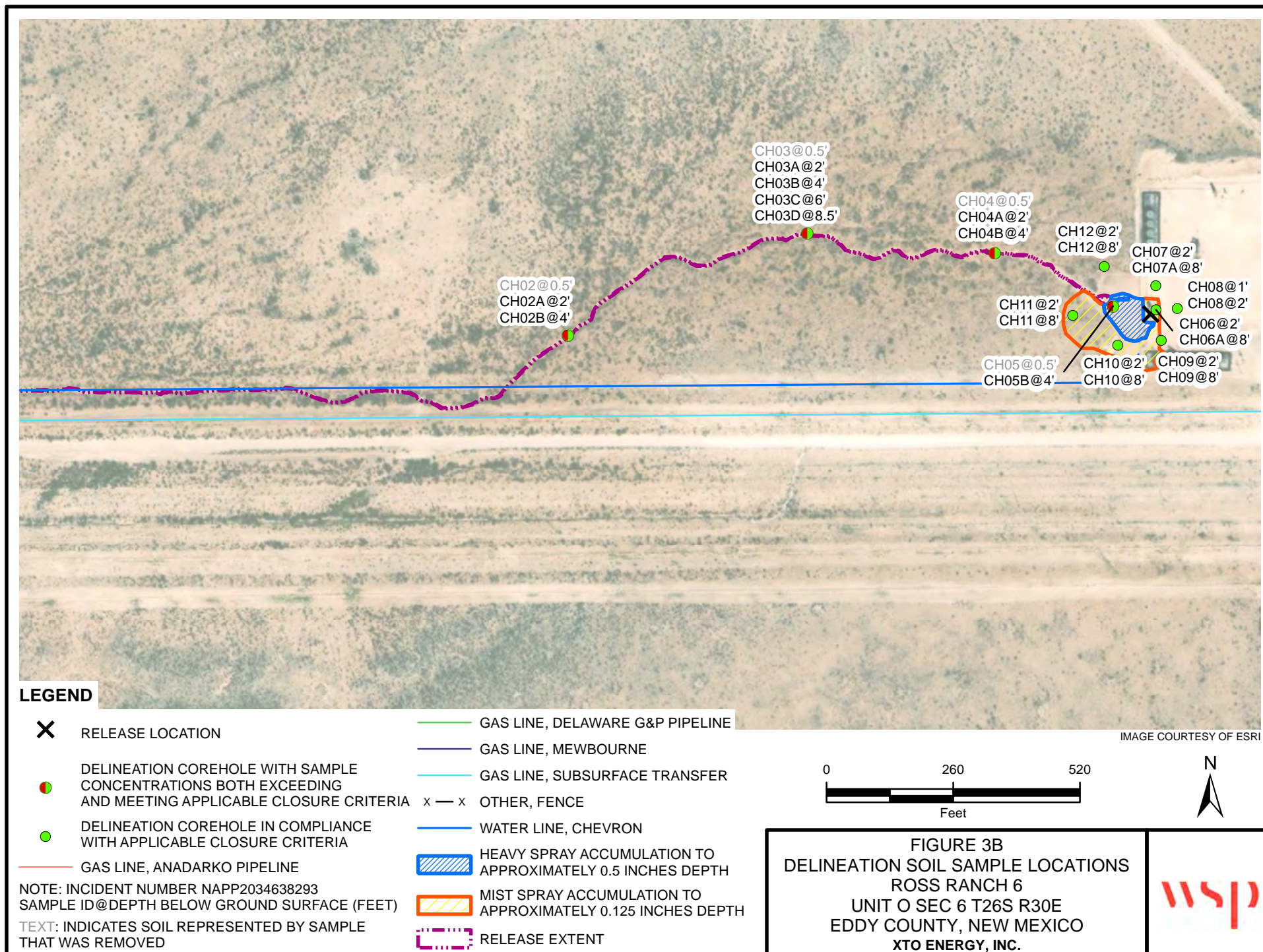
LEGEND
 WATERCOURSE SURVEY TRACT


FIGURE 2
 WATERCOURSE SURVEY
 ROSS RANCH 6
 UNIT 0 SEC 6 T26S R30E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



NOTE: INCIDENT NUMBER NAPP2034638293





TABLES

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Samples										
CH01	12/23/2020	0.5	<0.501	179	317	4,700	168	5,020	5,190	26.4*
CH01A	12/23/2020	2	<0.00201	0.0240	117	446	<50.2	563	563	<10.1*
CH01B	12/23/2020	4	<0.00199	0.142	<49.9	<49.9	<49.9	<49.9	<49.9	<9.94
CH01C	12/23/2020	6	<0.00202	0.104	<49.9	<49.9	<49.9	<49.9	<49.9	13.8
CH02	12/23/2020	0.5	<0.0504	27.0	262	4,290	333	4,550	4,890	1,470*
CH02A	12/23/2020	2	<0.00198	0.0231	<50.3	200	55.7	200	256	305*
CH02B	12/23/2020	4	<0.00200	<0.00200	<50.3	292	62.8	292	355	59.0
CH03	12/23/2020	0.5	<0.0996	6.16	371	4,520	136	4,890	5,030	1,510*
CH03A	12/23/2020	2	<0.00200	0.0869	<49.9	96.5	<49.9	96.5	96.5	696*
CH03B	12/23/2020	4	<0.00200	<0.00200	<49.8	94.6	<49.8	94.6	94.6	2,860
CH03C	12/23/2020	6	<0.00200	<0.00200	<49.8	84.4	73.3	84.4	158	1,160
CH03D	12/23/2020	8.5	<0.00202	<0.00202	<49.8	94.3	<49.8	94.3	94.3	49.3
CH04	12/24/2020	0.5	<0.0998	186	381	4,850	761	5,230	5,990	6,070*
CH04A	12/24/2020	2	<0.00199	0.0657	<50.2	96.8	<50.2	96.8	96.8	1,570*
CH04B	12/24/2020	4	<0.00200	0.692	<50.1	81.2	<50.1	81.2	81.2	349
CH05	12/24/2020	0.5	<0.0992	51.1	171	4,980	<50.1	5,150	5,150	465*
CH05A	12/24/2020	2	<0.000497	0.648	<49.8	81.8	<49.8	81.8	81.8	849*
CH05B	12/24/2020	4	<0.00200	<0.00200	<50.0	81.7	<50.0	81.7	81.7	331
CH06	01/08/2021	2	<0.00199	0.0158	<50.3	<50.3	<50.3	<50.3	<50.3	1,330
CH06A	01/08/2021	8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	448

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
CH07	01/08/2021	2	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	113
CH07A	01/08/2021	8	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	51.0
CH08	01/11/2021	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	315
CH08A	01/11/2021	2	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	105
CH09	01/11/2021	2	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	125
CH09A	01/11/2021	8	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	26.5
CH10	01/11/2021	2	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	25.1
CH10A	01/11/2021	8	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	96.3
CH11	01/11/2021	2	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	17.1
CH11A	01/11/2021	8	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	146
CH12	01/11/2021	2	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	11.6
CH12A	01/11/2021	8	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	83.5

Notes:

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - oil range organics

ORO - oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard

Greyed data represents samples that were excavated

* - indicates sample was collected in area to be reclaimed after remediation is complete;

closure criteria in the top 4 feet of soil is 100 mg/kg for TPH and 600 mg/kg for chloride.

ATTACHMENT 1: REFERENCED WELL RECORDS

FE-1

State of New Mexico

State Engineer

WELL SCHEDULE

Source of data: Obser ☐ Owner ☐ Other log & decln.
Date November 20 1953 Record by J.C. Yates

LOCATION: County Eddy Map 119.3.3

OWNER El Paso Natural Gas Co.

DRILLER Folk Drilling Co. Completed May 15 1952
Sk. 3 29 26

TOPO SITUATION _____ SEO Elev 3091.7

DEPTH 770 ft ☒ Rept ☐ Meas Use Industrial

CASING 10 3/4 in to 765 ft Log by Owner

PUMP: Type turbine Make Peerless #10

Ser.no/model 55598 Size of dischg 6 (?) in.

PRIME MOVER: Make Allis Chalmers B-125 HP 12.8

Ser.no. DU 78871 B Power Fuel Nat. gas

PUMP DRIVE: ☒ Gear Head ☐ Belt Head ☐ Pump Jack

Make _____ Ser.no. _____ ☐ VHS

WATER LEVEL: 171.73 ft rept 2-18 1959 above below top
of 2'x2' concrete pump base

_____ which is 1.9 ft above below LS

PERMANENT RP is top of pump house concrete floor

which is 1.00 ft above below described MP and 0.9 ft above below LS

REMARKS Entrance for tape is hole in concrete

AQUIFER(S): Qal

Well No. 1 on Photo PRD-2-87 DPN 15-10475

File No C-1360 Loc. No. 26.30.5.33441
(M-193)

Remarks cont. base, south side, Pecos Turbine
Station, Water Well No. 1

4-3-72 HWP talked to Mr. Bill Harris at pump station.
 he said they may soon electrify these wells. Both
 wells were pulled and cleaned out in 1971. Both
 wells are housed in corrugated iron shelters. This
 well is located 260' +/- (paced) N-NW of U.S.C. & G.S.

SKETCH: BM No. U-310, Dated 1958 Elev. 3088.17
 G.L. at well is 2.8' above top of BM, by
 hand level.

N
 ↑

7-8824 HWP 800 well POA - gas engine - building located
 02 Nov. 83, W & FAC. Elev. same as above.
 Book # 2, pg. 26.

APRIL 11, 1985, JCG & KF, well is
 LOCKED UP NO WAY TO SAMPLE

INITIAL WATER- LEVEL MEASUREMENT	DEPTH TO WATER			
	Below MP			Below LS
	1st	2nd	3rd	
Date <u>May</u> __, 19 <u>52</u>				
Hour ____ ^{AM} Obs <u>EPNG</u>				
Not POA () POA ()				<u>173</u>

W L meas after pump shut off ____ min. Pumping W L ()
 Remarks Reported water level on completion
of the well.

STATE ENGINEER
Technical Division

Owner <u>E.P.N.G. Co.</u>	DEPTH TO WATER			WATER LEVEL ELEV
	Below MP		Below LSD	
	1st	2nd		
Use <u>Industrial</u>				
Date <u>Feb</u> <u>18</u> , 19 <u>59</u>	190.00	175.00	171.83	3092
Hour <u>AM</u> Obs <u>JBC</u>	18.17	3.14	1.90	170
Not POA (X) POA ()	171.83	171.86	169.93	2922 ✓
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks _____ ✓				

Date <u>Jan</u> <u>19</u> , 19 <u>71</u>			174.00	3092
Hour <u>AM</u> Obs <u>E.P.N.G.</u>			1.90	172R
Not POA () POA ()		174'	172.10	2920R ✓
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks <u>Reported static level</u> ✓				

Date <u>April</u> <u>3</u> , 19 <u>72</u>	185.00	176.00	173.27	3092
Hour <u>11:55</u> <u>AM</u> Obs <u>HWP</u>	11.73	2.73	1.90	171
Not POA () POA ()	173.27	173.27	171.37	2921 ✓
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks _____ ✓				

Date <u>Jan</u> <u>28</u> , 19 <u>76</u>	183.00	176.00	173.25	3092
Hour <u>10:00</u> <u>AM</u> Obs <u>HWP</u>	9.75	2.74	1.90	171
Not POA (X) POA ()	173.25	173.26	171.35	2921 ✓
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks <u>control time clock is not running</u> ✓				

Latitude _____ Longitude DPN 15-10475
 File No C-1360 Location No 26,30.5,33441

STATE ENGINEER
Technical Division

Owner <u>E.P.N.G. Co.</u>	DEPTH TO WATER			WATER LEVEL ELEV
	Below MP		Below	
Use <u>Industrial</u>	1st	2nd	LSD	
Date <u>JANUARY 26</u> , 19 <u>83</u>				
Hour <u>12³⁰</u> AM PM Obs <u>RED+MIN</u>				
Not POA () POA ()				
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks <u>LOCATED BUILDING 50' UNABLE TO MEASURE</u>				

Date <u>FEB 15</u> , 19 <u>83</u>	<u>198.00</u>	<u>190.00</u>	<u>188.14</u>	<u>3092</u>
Hour <u>9:50</u> AM PM Obs <u>RLT+ TS</u>	<u>9.84</u>	<u>1.86</u>	<u>1.90</u>	<u>186</u>
Not POA (X) POA ()	<u>188.16</u>	<u>188.14</u>	<u>186.24</u>	<u>2906</u>
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks _____				

Date _____, 19 ____				
Hour _____ AM PM Obs _____				
Not POA () POA ()				
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks _____				

Date _____, 19 ____				
Hour _____ AM PM Obs _____				
Not POA () POA ()				
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks _____				

Latitude _____ Longitude DPN 15-10475
 File No C-1360 Location No 26.30.5.33441

FE-1

State of New Mexico

State Engineer

WELL SCHEDULE

Source of data: Obser ☐ Owner ☐ Other Decln & log
 Date November 20 1953 Record by J. C. Yates

LOCATION: County Eddy Map 119.3.3

OWNER El Paso Natural Gas Co. (on Federal land)

DRILLER Folk Drilling Co. Completed June 1 1952

TOPO SITUATION Book 8, pg. 26 S.E.O. & bpo Elev 3101.8

DEPTH 775 ft ☒ Rept ☐ Meas Use Industrial

CASING 10 3/4 * in to 570 ft Log from owner

PUMP: Type turbine Make Peerless

Ser.no. /model 55597 Size of dischg _____ in.

PRIME MOVER: Make Allis Chalmers B125 HP 11.5

Ser.no. PV 78870 B Power Fuel Nat. gas

PUMP DRIVE: ☒ Gear Head ☐ Belt Head ☐ Pump Jack

Make _____ Ser.no. _____ ☐ VHS

WATER LEVEL: 184.05 ft rept 8-18 1958 above west
edge of 2" pipe nipple in pump base where airline
tube enters which is 2.30 ft above below LS

PERMANENT RP is top of 9' x 12' pump house
concrete floor

which is 1.06 ft above below described MP and 1.24 ft above below LS

REMARKS Pump sits on 2' x 2' concrete base, the

AQUIFER(S): Qal SITE ID# 3204041035231 01

Well No. 2 on Photo PRD-2-37 DPN 15-10476

File No C-1361 Loc. No. 26.30.5.343414

Remarks cont. top surface of which is 0.80' above concrete floor, and 0.26' below M.P. Pecos
 Turbine station water well #2. The pump house is shown on topo quad * 8 5/8" liner 530'-755'

7-8-82 HWP well not pumping - pump house is padlocked

SKETCH: 7-4-57 Pump Plate has been welded on 4 corners. Unable to Trip Sample

N



190.00	188.00	191.00	190.00
2.44	0.56	1.65	0.23
187.56	187.44	189.35	

188.00	187.00	191.00
1.33	0.35	0.22
186.67	186.69	

INITIAL WATER- LEVEL MEASUREMENT	DEPTH TO WATER			
	Below MP			Below LS
	1st	2nd	3rd	
Date <u>August 18</u> , 19 <u>58</u>	270.00			184.05
Hour <u>12⁰⁰</u> ^{AM} _{PM} Obs <u>WEH</u>	85.95			2.30
Not POA (X) POA () ^{USGS}	184.05			181.75

W L meas after pump shut off _____ min. Pumping W L ()

Remarks Water sample collected

STATE ENGINEER
Technical Division

Owner <u>E.P.N.G.</u>	DEPTH TO WATER			WATER LEVEL ELEV
	Below MP		Below LSD	
	1st	2nd		
Use <u>Industrial</u>				
Date <u>August 18, 1958</u>	270.00		184.05	3102
Hour <u>12⁰⁰ AM</u> Obs <u>W.E.H.</u>	85.95		2.30	182
PM <u>USGS</u>				
Not POA (X) POA ()	184.05		181.75	2920 ✓
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks <u>Water sample collected</u> ✓				

Date <u>February 18, 1971</u>			185.00	3102
Hour _____ AM Obs <u>EPNG</u>			2.30	183 R
PM				
Not POA (X) POA ()	185.00		182.70	2919 R
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks <u>Water level measured by EPNG</u> ✓				
<u>personnel. Probably reliable.</u>				

Date <u>January 28, 1976</u>	188.00	187.00	184.02	3102
Hour <u>10²⁰ AM</u> Obs <u>HWP</u>	3.97	2.98	2.30	182
PM				
Not POA (X) POA ()	184.03	184.02	181.72	2920 ✓
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks <u>MP = west edge of 2" pipe nipple in pump base</u>				
<u>where airline tube enters. Had 90' of very spotty tape</u>				

Date <u>Feb 15, 1983</u>	<u>UTM Obstruction</u>			
Hour <u>10⁰⁵ AM</u> Obs <u>TSD</u>	<u>at</u>	<u>182'</u>	<u>Dry</u>	
PM				
Not POA (X) POA ()				
W L meas after pump shut off _____ min. Pumping W L ()				
Remarks <u>LOCKED BUILDING SO UNABLE TO MEASURE</u>				

Latitude _____ Longitude DPN 15-10476

File No C-1361 Location No 26, 30.5, 343414

STATE ENGINEER
Technical Division

Owner <u>EPNG</u>	DEPTH TO WATER			WATER LEVEL ELEV
Use <u>Industrial</u>	Below MP		Below LSD	
	1st	2nd		
Date <u>10 21</u> , 19 <u>87</u>	<u>188.00</u>	<u>187.00</u>	<u>186.67</u>	<u>3102</u>
Hour <u>4:00</u> AM <u>PM</u> Obs <u>KEWG</u>	<u>1.33</u>	<u>0.31</u>	<u>2.04</u>	<u>185</u>
Not POA (X) POA ()	<u>186.67</u>	<u>186.69</u>	<u>184.63</u>	<u>2917</u>

W L meas after pump shut off _____ min. Pumping W L ()
 Remarks MP is top edge of 2'x2' concrete base = 0.80' + 1.24' = 2.04'
So MP = 2.04' ALS, Pump has been removed. Water sample collected
7.5 @ 500'

X Date <u>NOV 5</u> , 19 <u>92</u>	<u>185.08</u>	<u>190.00</u>	<u>181.71</u>	<u>3102</u>
Hour <u>4:35</u> AM <u>PM</u> Obs <u>KO-PE</u>	<u>3.29</u>	<u>8.29</u>	<u>2.04</u>	<u>180</u>
Not POA (X) POA ()	<u>181.71</u>	<u>181.71</u>	<u>179.67</u>	<u>2922</u>

W L meas after pump shut off _____ min. Pumping W L ()
 Remarks _____

Date <u>1 28</u> , 19 <u>98</u>	<u>186.00</u>	<u>185.00</u>	<u>181.74</u>	<u>3102</u>
Hour <u>3:15</u> AM <u>PM</u> Obs <u>FM-FM</u>	<u>4.27</u>	<u>3.26</u>	<u>2.04</u>	<u>180</u>
Not POA (X) POA ()	<u>181.73</u>	<u>181.74</u>	<u>179.70</u>	<u>2922</u>

W L meas after pump shut off _____ min. Pumping W L ()
 Remarks _____

Date <u>1 27</u> , 19 <u>03</u>	<u>186.00</u>	<u>187.00</u>	<u>182.24</u>	<u>3102</u>
Hour <u>11:58</u> AM <u>PM</u> Obs <u>PF</u>	<u>3.76</u>	<u>4.76</u>	<u>2.04</u>	<u>180</u>
Not POA (X) POA ()	<u>182.24</u>	<u>182.24</u>	<u>180.20</u>	<u>2922</u>

W L meas after pump shut off _____ min. Pumping W L ()
 Remarks _____

Latitude 0a1 Longitude 15-10476

Released to Imaging: 9/8/2021 3:50:23 PM No 26.30.5.343414.



New Mexico Office of the State Engineer

Water Right Summary

WR File Number: C 01360 **Subbasin:** CUB **Cross Reference:** -
Primary Purpose: IND INDUSTRIAL
Primary Status: DCL DECLARATION
Total Acres: 0 **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: EL PASO NATURAL GAS
Contact: PAULA JOY

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
460091	COWNF	2010-05-26	CHG	PRC	C 01360	T	0	0	
203459	DCL	1953-11-17	DCL	PRC	C 01360	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 01360		Shallow	4	3	3	05	26S	30E	602997	3548152	

Place of Use

Q	Q	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	64						0	0		IND		DCL	NO PLACE OF USE GIVEN.

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	0		IND		GW

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/17/21 9:16 AM

 WATER RIGHT
SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number****Q64 Q16 Q4 Sec Tws Rng****X****Y**

C 01360

4 3 3 05 26S 30E 602997 3548152 **Driller License:** 95**Driller Company:** FOLK DRILLING CO.**Driller Name:****Drill Start Date:** 04/26/1952**Drill Finish Date:** 05/15/1952**Plug Date:****Log File Date:** 11/17/1953**PCW Rev Date:****Source:** Shallow**Pump Type:****Pipe Discharge Size:****Estimated Yield:****Casing Size:** 12.75**Depth Well:** 770 feet**Depth Water:** 173 feet**Water Bearing Stratifications:****Top Bottom Description**

210 220 Sandstone/Gravel/Conglomerate

580 585 Sandstone/Gravel/Conglomerate

665 710 Sandstone/Gravel/Conglomerate

725 770 Sandstone/Gravel/Conglomerate

Casing Perforations:**Top Bottom**

180 289

538 770

Meter Number: 16557**Meter Make:** SIEMENS**Meter Serial Number:** L1254823**Meter Multiplier:** 100.0000**Number of Dials:** 8**Meter Type:** Diversion**Unit of Measure:** Gallons**Return Flow Percent:****Usage Multiplier:****Reading Frequency:** Quarterly**Meter Readings (in Acre-Feet)**

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
07/01/2014	2014	234997	A	RPT		0
09/30/2014	2014	354169	A	RPT		36.573
11/20/2014	2014	7281000	A	RPT		0
12/31/2014	2014	11430100	A	RPT		12.733
04/01/2015	2015	22535200	A	RPT		34.080
07/01/2015	2015	35821800	A	RPT		40.775
10/05/2015	2015	46631200	A	RPT		33.173
12/31/2015	2015	55653200	A	RPT		27.688
01/31/2016	2016	58047600	A	RPT		7.348
02/29/2016	2016	61081100	A	RPT		9.309
03/31/2016	2016	62593100	A	RPT		4.640
06/30/2016	2016	71642600	A	RPT		27.772
10/03/2016	2016	81998399	A	RPT		31.781
12/31/2016	2016	90558600	A	RPT		26.270
04/04/2019	2019	164290087	A	RPT		226.274
10/02/2019	2019	790380	A	RPT	METER CHANGE OUT	0

07/2019
 01/02/2020 2020 1733720 A RPT 289.500
 04/07/2021 2021 36814117 A WEB 10765.779 X

x
****YTD Meter Amounts:**

Year	Amount
2014	49.306
2015	135.716
2016	107.120
2019	226.274
2020	289.500
2021	10765.779

x
Meter Number: 16558 **Meter Make:** MASTERMETER
Meter Serial Number: 32530403 **Meter Multiplier:** 100.0000
Number of Dials: 6 **Meter Type:** Diversion
Unit of Measure: Gallons **Return Flow Percent:**
Usage Multiplier: **Reading Frequency:**

x
Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
10/01/2014	2014	354169	A	RPT		0
11/20/2014	2014	415555	A	RPT		18.839
11/21/2014	2014	72810	A	RPT		0
12/31/2014	2014	112178	A	RPT		12.082
02/01/2015	2015	147039	A	RPT		10.698
03/02/2015	2015	188133	A	RPT		12.611
04/01/2015	2015	224102	A	RPT		11.038
04/30/2015	2015	270723	A	RPT		14.307
05/31/2015	2015	315628	A	tw		13.781
07/01/2015	2015	369075	A	tw		16.402
08/01/2015	2015	395528	A	tw		8.118
08/31/2015	2015	455361	A	tw		18.362
10/01/2015	2015	466312	A	RPT		3.361

x
****YTD Meter Amounts:**

Year	Amount
2014	30.921
2015	108.678

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/17/21 9:16 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary

WR File Number: C 01361 **Subbasin:** CUB **Cross Reference:** -
Primary Purpose: IND INDUSTRIAL
Primary Status: DCL DECLARATION
Total Acres: 0 **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: EL PASO NATURAL GAS
Contact: PAULA JOY

Documents on File

Trn #	Doc	File/Act	Status			From/ To	Acres	Diversion	Consumptive
			1	2	Transaction Desc.				
460129	COWNF	2010-05-26	CHG	PRC	C 01361	T	0	0	
203463	DCL	1953-11-17	DCL	PRC	C 01361	T	0	0	

Current Points of Diversion

POD Number	Well Tag	Source	Q					X	Y	Other Location Desc
			64	Q16	Q4	Sec	Tws	Rng		
C 01361		Shallow	3	4	3	05	26S	30E	603240	3548157

Place of Use

Q	Q									Status	Other Location Desc
256	64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority
							0	0		IND	

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	0		IND		GW

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/19/21 1:24 PM

 WATER RIGHT
SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	01361	3	4	3	05	26S	30E	603240	3548157



x

Driller License: 95 **Driller Company:** FOLK DRILLING CO.

Driller Name:

Drill Start Date: 05/16/1952	Drill Finish Date: 06/01/1952	Plug Date:
Log File Date: 11/17/1953	PCW Rev Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield:
Casing Size: 12.75	Depth Well: 775 feet	Depth Water: 184 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	195	230	Sandstone/Gravel/Conglomerate
	255	295	Sandstone/Gravel/Conglomerate
	535	570	Sandstone/Gravel/Conglomerate
	695	735	Sandstone/Gravel/Conglomerate
	740	750	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	145	353
	418	555
	530	755

x

Meter Number: 16559	Meter Make: SIEMENS
Meter Serial Number: L1254817	Meter Multiplier: 100.0000
Number of Dials: 8	Meter Type: Diversion
Unit of Measure: Gallons	Return Flow Percent:
Usage Multiplier:	Reading Frequency: Quarterly

x

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
07/01/2014	2014	432977	A	RPT		0
09/30/2014	2014	542020	A	RPT		33.464
11/20/2014	2014	71523	A	RPT		0
12/31/2014	2014	10869200	A	RPT		33.137
04/01/2015	2015	20528000	A	RPT		29.642
07/01/2015	2015	32166600	A	RPT		35.718
10/02/2019	2019	41391130	A	RPT		2830.904
01/02/2020	2020	44360000	A	RPT		911.113

**YTD Meter Amounts:	Year	Amount
	2014	66.601
	2015	65.360
	2019	2830.904
	2020	911.113

Meter Number: 16560 **Meter Make:** MASTERMETER
Meter Serial Number: 425026402 **Meter Multiplier:** 1.0000
Number of Dials: 9 **Meter Type:** Diversion
Unit of Measure: Gallons **Return Flow Percent:**
Usage Multiplier: **Reading Frequency:** Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr Comment	Mtr Amount Online
01/03/2012	2012	796624	A	RPT	0
04/01/2014	2014	322335	R	RPT Meter Rollover	161.335
07/01/2014	2014	422977	A	RPT	30.886
10/01/2014	2014	542008	A	RPT	36.529
11/20/2014	2014	597747	A	RPT	17.106
11/21/2014	2014	71523	A	RPT	0
12/31/2014	2014	108692	A	RPT	11.407
02/01/2015	2015	144071	A	RPT	10.857
03/02/2015	2015	177073	A	RPT	10.128
04/01/2015	2015	204100	A	RPT	8.294
04/30/2015	2015	246672	A	RPT	13.065
05/31/2015	2015	286863	A	RPT	12.334
07/01/2015	2015	329411	A	RPT	13.058
08/01/2015	2015	350757	A	RPT	6.551
08/31/2015	2015	384122	A	RPT	10.239
10/01/2015	2015	413202	A	RPT	8.924
10/01/2015	2015	0	A	RPT Meter Change	0
10/31/2015	2015	2767800	A	RPT	8.494
11/30/2015	2015	5636900	A	RPT	8.805
12/31/2015	2015	7565000	A	RPT	5.917
01/31/2016	2016	9247200	A	RPT	5.162
02/29/2016	2016	12569900	A	RPT	10.197
03/31/2016	2016	14698800	A	RPT	6.533
04/30/2016	2016	16601309	A	RPT	5.839
05/30/2016	2016	19235300	A	RPT	8.083
06/30/2016	2016	22955800	A	RPT	11.418
07/31/2016	2016	26437114	A	RPT	10.684
08/30/2016	2016	30077563	A	RPT	11.172
09/30/2016	2016	32631836	A	RPT	7.839
10/31/2016	2016	35193200	A	RPT	7.861
11/30/2016	2016	37896100	A	RPT	8.295
12/31/2016	2016	41023100	A	RPT	9.596
04/04/2019	2019	99357190	A	RPT	179.021


**YTD Meter Amounts:	Year	Amount
	2012	0
	2014	257.263
	2015	116.666
	2016	102.679
	2019	179.021


The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.


5/19/21 1:25 PM


POINT OF DIVERSION SUMMARY


ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOG


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or MW Name:		Date:					
		CH01		12/23/2020					
		Site Name: Ross Ranch 6							
		RP or Incident Number NAPP2034638293							
WSP Job Number: TE012920159									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening:		Hole Diameter:					
32.064892, -103.931169		Hach chloride strips, PID		2"					
Backfill or Well Construction Materials / Comments:									
Borehole backfilled with sand from 6' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
W	<112	10,000	Y	CH01	0.5	0 0.5	SP	0-1.5' SAND, wet, light brown, poorly graded, fine-very fine grain, moderate brown H/C stain, moderate H/C odor.	Backfilled with sand from 6' to surface
M	<112	210	N	CH01A	2	2 3	CCHE	1.5'-6' CALICHE, moist, tan-light brown, moderately consolidated, trace fine grain brown sand, moderate H/C odor, no stain.	
M	<112	154	N	CH01B	4	4 5		4', light H/C odor.	
M	<112	160	N	CH01C	6	6			
TD @ 6' bgs.									


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or MW Name:		Date:					
		CH02		12/23/2020					
		Site Name: Ross Ranch 6							
		RP or Incident Number NAPP2034638293							
WSP Job Number: TE012920159									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long: 32.064963, -103.922274		Field Screening: Hach chloride strips, PID		Hole Diameter: 2"					
				Total Depth: 4'					
				Depth to Water: Dry					
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 4' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
W	1,528	10,000	Y	CH02	0.5'	0	SP	0-0.5' SAND, wet, light brown, poorly graded, fine-very fine grain, moderate H/C stain, moderate H/C odor.	Backfilled with sand from 4' to surface
M	156	74.1	N	CH02A	2'	2	CCHE	1.5'-6' CALICHE, moist, tan-light brown, moderately consolidated, trace fine grain brown sand, moderate H/C odor, no stain.	
						3			
M	<112	21.4	N	CH02B	4'	4		4', light H/C odor.	
TD @ 4' bgs									


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or MW Name:		Date:		
					CH03		12/23/2020		
					Site Name: Ross Ranch 6				
					RP or Incident Number NAPP2034638293				
WSP Job Number: TE012920159					Logged By: BB, TC		Method: Shaw Core Drill		
LITHOLOGIC / SOIL SAMPLING LOG					Hole Diameter:		Total Depth: 8.5'		
Lat/Long: 32.065531, -103.920686					Field Screening:		Depth to Water: Dry		
Hach chloride strips, PID					2"				
Backfill or Well Construction Materials / Comments:									
Borehole backfilled with sand from 8.5' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
W	848	459	Y	CH03	0.5'	0	SP	0-1.5' SAND, wet, light brown, poorly graded, fine-very fine grain, moderate brown H/C stain, moderate H/C odor.	Backfilled with sand from 8.5' to surface
M	248	99.3	N	CH03A	2'	2	CCHE	1.5'-7.5' CALICHE, moist, tan-light brown, moderately consolidated, light H/C odor, no stain.	
						3			
M	2,008	4.3	N	CH03B	4'	4		4'-7.5', some brown medium grain sand.	
						5			
M	1,752	8.7	N	CH03C	6'	6			
						7			
						8	SW	7.5'-8.5' SAND with gravel, moist, brown-dark brown, well graded, coarse-medium grain, well rounded gravel, no stain, no odor.	
M	<124	4.8	N	CH03D	8.5'				
TD @ 8.5' bgs									


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or MW Name:		Date:					
		CH04		12/24/2020					
		Site Name: Ross Ranch 6							
		RP or Incident Number NAPP2034638293							
		WSP Job Number: TE012920159							
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long: 32.065416, -103.919444		Field Screening: Hach chloride strips, PID		Hole Diameter: 2"					
				Total Depth: 4'					
				Depth to Water: Dry					
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 4' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
M	1,993	416	Y	CH04	0.5'	0	SP	0-1' SAND, moist, light brown-brown, poorly graded, fine-very fine grain, moderate brown H/C stain, moderate H/C odor.	Backfilled with sand from 4' to surface
M	985	62	N	CH04A	2'	2	CCHE	1'-3' CALICHE, moist, tan-light brown, moderately consolidated, trace fine grain brown sand, trace H/C odor, no stain.	
						3	SW	3'-4' SAND with gravel, moist, brown-dark brown, well graded, coarse-medium grain, well rounded gravel, trace H/C odor, no stain.	
M	229	92	N	CH04B	4'	4			
TD @ 4' bgs									


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or MW Name:		Date:					
		CH05		12/24/2020					
		Site Name: Ross Ranch 6							
		RP or Incident Number NAPP2034638293							
WSP Job Number: TE012920159									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long: 32.065114, -103.918662		Field Screening: Hach chloride strips, PID		Hole Diameter: 2"					
				Total Depth: 4'					
				Depth to Water: Dry					
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 4' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
M	444	348	Y	CH05	0.5'	0	SP	0-0.5' SAND, moist, light brown-brown, poorly graded, fine-very fine grain, moderate brown H/C stain, moderate H/C odor.	Backfilled with sand from 4' to surface
D	544	38	N	CH05A	2'	2	CCHE	0.5'-2.5' CALICHE, dry, tan-light brown, moderately consolidated, trace fine grain brown sand, light H/C odor, no stain.	
						3	SW	2.5'-4' SAND with gravel, moist, brown-dark brown, well graded, coarse-medium grain, well rounded gravel, trace H/C odor, no stain.	
D	352	3	N	CH05B	4'	4			
TD @ 4' bgs									


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or MW Name:		Date:					
		CH06		01/08/2021					
		Site Name: Ross Ranch 6							
		RP or Incident Number NAPP2034638293							
WSP Job Number: TE012920159									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening:		Hole Diameter:					
32.065114, -103.918662		Hach chloride strips, PID		2"					
Backfill or Well Construction Materials / Comments:									
Borehole backfilled with sand from 8' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
W	2,284	5.4	Y	CH06	1'	0	SP	0 - 1' SAND, wet, light brown, poorly graded, fine-very fine grain, brown staining, moderate odor	Backfilled with sand from 8' to surface
M	1,422	3.4	N		2'	2	CCHE	2'-7' CALICHE, moist, tan-light brown, moderately consolidated, trace fine grain brown sand, no stain, light odor	
M	963	0.6	N		3'	3			
					4'	4			
M	1,752	0.2	N		5'	5			
					6'	6			
					7'	7	SW	7.5'-8' SAND with gravel, moist, tan-brown, well graded coarse-medium grain, well rounded gravel, no stain, no odor	
M	509	0.0	N	CH06A	8'	8			
TD @ 8' bgs									


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or MW Name:		Date:					
		CH07		01/08/2021					
		Site Name: Ross Ranch 6							
		RP or Incident Number NAPP2034638293							
WSP Job Number: TE012920159									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long: 32.065114, -103.918662		Field Screening: Hach chloride strips, PID		Hole Diameter: 2"					
				Total Depth: 8'					
				Depth to Water: Dry					
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 8' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
M	128	0.2	N	CH07	2'	2	SP	2'-8' SAND, moist, brown, poorly graded, fine-very fine grain, no stain, no odor	Backfilled with sand from 8' to surface
						0		0 - 2' SAND, moist, light brwn, poorly graded, fine-very fine grain, some caliche gravel, no stain, no odor	
						3			
						4			
						5			
						6			
						7			
M	<128	0.0	N	CH07A	8'	8			
TD @ 8' bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or MW Name:		Date:		
					CH08		01/11/2021		
					Site Name: Ross Ranch 6				
					RP or Incident Number NAPP2034638293				
WSP Job Number: TE012920159					Logged By: TC		Method: Shaw Core Drill		
LITHOLOGIC / SOIL SAMPLING LOG					Lat/Long: 32.065114, -103.918662		Field Screening: Hach chloride strips, PID		
					Hole Diameter: 2"		Total Depth: 2'		
					Depth to Water: Dry				
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 8' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
						0	SP	0 - 1' SAND, moist, light brwn, poorly graded, fine-very fine grain, some caliche gravel, no stain, no odor	Backfilled with sand from 2' to surface
M	128	0.0	N	CH08	1'	1	CCHE	1'-2' CALICHE, moist, tan-light brown, moderately consolidated, trace fine grain brown sand, trace H/C odor, no stain.	
M	<128	0.1	N	CH08A	2'	2			
TD @ 2' bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or MW Name:		Date:	
						CH09		01/11/2021	
						Site Name: Ross Ranch 6			
						RP or Incident Number NAPP2034638293			
WSP Job Number: TE012920159						Logged By: TC		Method: Shaw Core Drill	
Lat/Long: 32.065114, -103.918662				Field Screening: Hach chloride strips, PID		Hole Diameter: 2"		Total Depth: 8'	
								Depth to Water: Dry	
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 8' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
D	<168	0.0	N	CH09	2'	0	SP	0 - 7' SAND, moist, light brwn, poorly graded, fine-very fine grain, some caliche gravel, no stain, no odor	Backfilled with sand from 8' to surface
						1			
						2			
						3			
						4			
D	<168	0.0	N	CH09A	8'	5	SW	7'-8' SAND, moist, brown-light brown, well graded, coarse-medium grain, well rounded gravel, no stain, no odor	
						6			
						7			
						8			
						9			
TD @ 8' bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or MW Name:		Date:	
						CH10		01/11/2021	
						Site Name: Ross Ranch 6			
						RP or Incident Number NAPP2034638293			
WSP Job Number: TE012920159						Logged By: TC		Method: Shaw Core Drill	
Lat/Long: 32.065114, -103.918662				Field Screening: Hach chloride strips, PID		Hole Diameter: 2"		Total Depth: 8'	
								Depth to Water: Dry	
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 8' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
D	<168	0.0	N	CH10	2'	0	SP	0 - 7' SAND, moist, light brwn, poorly graded, fine-very fine grain, some caliche gravel, no stain, no odor	Backfilled with sand from 8' to surface
						1			
						2			
						3			
						4			
D	<168	0.0	N	CH10A	8'	5	SW	7'-8' SAND, moist, brown-light brown, well graded, coarse-medium grain, well rounded gravel, no stain, no odor	
						6			
						7			
						8			
						9			
TD @ 8' bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or MW Name:		Date:	
						CH11		01/11/2021	
						Site Name: Ross Ranch 6			
						RP or Incident Number NAPP2034638293			
WSP Job Number: TE012920159						Logged By: TC		Method: Shaw Core Drill	
Lat/Long: 32.065114, -103.918662				Field Screening: Hach chloride strips, PID		Hole Diameter: 2"		Total Depth: 8'	
								Depth to Water: Dry	
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 8' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
D	<168	0.0	N	CH11	2'	0	SP	0 - 7' SAND, moist, light brwn, poorly graded, fine-very fine grain, some caliche gravel, no stain, no odor	Backfilled with sand from 8' to surface
						1			
						2			
						3			
						4			
D	<168	0.0	N	CH11A	8'	5	SW	7'-8' SAND, moist, brown-light brown, well graded, coarse-medium grain, well rounded gravel, no stain, no odor	
						6			
						7			
						8			
						9			
TD @ 8' bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or MW Name:		Date:	
						CH12		01/11/2021	
						Site Name: Ross Ranch 6			
						RP or Incident Number NAPP2034638293			
WSP Job Number: TE012920159						Logged By: TC		Method: Shaw Core Drill	
Lat/Long: 32.065114, -103.918662				Field Screening: Hach chloride strips, PID		Hole Diameter: 2"		Total Depth: 8'	
								Depth to Water: Dry	
Backfill or Well Construction Materials / Comments: Borehole backfilled with sand from 8' to surface. All chloride tests include a 40% correction factor.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
D	<168	0.0	N	CH12	2'	0	SP	0 - 7' SAND, moist, light brwn, poorly graded, fine-very fine grain, some caliche gravel, no stain, no odor	Backfilled with sand from 8' to surface
						1			
						2			
						3			
						4			
D	<168	0.0	N	CH12A	8'	5	SW	7'-8' SAND, moist, brown-light brown, well graded, coarse-medium grain, well rounded gravel, no stain, no odor	
						6			
						7			
						8			
						9			
TD @ 8' bgs									

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Ross Ranch 6 Eddy County, NM	TE012920159
------------------	---------------------------------	-------------



Photo No.	Date	
1	December 4, 2020	
Release within pasture facing east.		

Photo No.	Date	
2	December 4, 2020	
Release within pasture facing east.		



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Ross Ranch 6 Eddy County, NM	TE012920159
-------------------------	---	--------------------


Photo No.	Date	
3	December 4, 2020	
Release at edge of well pad facing west.		

Photo No.	Date	
4	December 23, 2020	
View of corehole (CH01) facing east during delineation activities.		



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Ross Ranch 6 Eddy County, NM	TE012920159
-------------------------	---	--------------------



Photo No.	Date	
5	December 23, 2020	
View of corehole (CH02) facing east during delineation activities.		

Photo No.	Date	
6	April 22, 2021	
View of the excavation facing west.		



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Ross Ranch 6 Eddy County, NM	TE012920159
-------------------------	---	--------------------



Photo No.	Date	
7	April 22, 2021	
View of the excavation facing west.		 A photograph showing a deep, narrow excavation in a dry, desert-like environment. The soil is reddish-brown and appears to be composed of sand and small rocks. The excavation runs diagonally across the frame. In the background, there are some sparse, dry bushes and a clear sky with a few wispy clouds.

Photo No.	Date	
8	April 22, 2021	
View of the excavation facing east-southeast.		 A photograph showing a deep, narrow excavation in a dry, desert-like environment. The soil is reddish-brown and appears to be composed of sand and small rocks. The excavation runs diagonally across the frame. In the background, there are some sparse, dry bushes and a clear sky with a few wispy clouds. A large industrial structure, possibly a wellhead or pumpjack, is visible in the distance on the right side of the frame.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 682651

LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon 12.28.2020 10:05

Report Date: 02.10.2021 07:50

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	682651-001	682651-002	682651-003	682651-004	682651-005	682651-006
	Field Id:	CH01	CH01 A	CH02	CH02 A	CH02 B	CH03
	Depth:	0.5- ft	2- ft	0.5- ft	2- ft	4- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	12.23.2020 09:34	12.23.2020 10:10	12.23.2020 11:00	12.23.2020 11:20	12.23.2020 11:50	12.23.2020 13:30
BTEX by EPA 8021B	Extracted:	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49
	Analyzed:	12.29.2020 13:55	12.29.2020 12:48	12.29.2020 13:11	12.29.2020 11:18	12.28.2020 23:49	12.29.2020 14:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.501 0.501	<0.00201 0.00201	<0.0504 0.0504	<0.00198 0.00198	<0.00200 0.00200	<0.0996 0.0996
Toluene		17.7 2.00	<0.00201 0.00201	3.47 0.202	0.00818 0.00198	<0.00200 0.00200	0.424 0.0996
Ethylbenzene		24.0 2.00	<0.00201 0.00201	3.90 0.202	<0.00198 0.00198	<0.00200 0.00200	0.784 0.0996
m,p-Xylenes		98.4 4.01	0.0153 0.00402	14.8 0.403	0.0149 0.00397	<0.00399 0.00399	3.30 0.199
o-Xylene		39.2 2.00	0.00869 0.00201	4.87 0.202	<0.00198 0.00198	<0.00200 0.00200	1.65 0.0996
Total Xylenes		138 2.00	0.0240 0.00201	19.7 0.202	0.0149 0.00198	<0.00200 0.00200	4.95 0.0996
Total BTEX		179 0.501	0.0240 0.00201	27.0 0.0504	0.0231 0.00198	<0.00200 0.00200	6.16 0.0996
Chloride by EPA 300	Extracted:	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00
	Analyzed:	12.28.2020 16:53	12.28.2020 16:59	12.28.2020 17:05	12.28.2020 17:23	12.28.2020 17:29	12.28.2020 17:47
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		26.4 10.1	<10.1 10.1	1470 49.7	305 9.98	59.0 10.0	1510 50.1
TPH by SW8015 Mod	Extracted:	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00
	Analyzed:	12.28.2020 17:16	12.28.2020 17:36	12.28.2020 17:56	12.28.2020 18:16	12.28.2020 18:56	12.28.2020 19:16
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		317 49.9	117 50.2	262 49.8	<50.3 50.3	<50.3 50.3	371 50.2
Diesel Range Organics (DRO)		4700 49.9	446 50.2	4290 49.8	200 50.3	292 50.3	4520 50.2
Motor Oil Range Hydrocarbons (MRO)		168 49.9	<50.2 50.2	333 49.8	55.7 50.3	62.8 50.3	136 50.2
Total GRO-DRO		5020 49.9	563 50.2	4550 49.8	200 50.3	292 50.3	4890 50.2
Total TPH		5190 49.9	563 50.2	4890 49.8	256 50.3	355 50.3	5030 50.2

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 682651

LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon 12.28.2020 10:05

Report Date: 02.10.2021 07:50

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	682651-007	682651-008	682651-009	682651-010		
	<i>Field Id:</i>	CH03 A	CH03 B	CH03 C	CH03 D		
	<i>Depth:</i>	2- ft	4- ft	6- ft	8.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	12.23.2020 13:40	12.23.2020 13:50	12.23.2020 14:15	12.23.2020 15:00		
BTEX by EPA 8021B	<i>Extracted:</i>	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49		
	<i>Analyzed:</i>	12.29.2020 11:41	12.29.2020 00:56	12.29.2020 01:19	12.29.2020 12:03		
	<i>Units/RL:</i>	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	<0.00202 0.00202		
Toluene		0.00770 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202		
Ethylbenzene		0.00991 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202		
m,p-Xylenes		0.0498 0.00399	<0.00399 0.00399	<0.00401 0.00401	<0.00403 0.00403		
o-Xylene		0.0195 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202		
Total Xylenes		0.0693 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202		
Total BTEX		0.0869 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202		
Chloride by EPA 300	<i>Extracted:</i>	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00		
	<i>Analyzed:</i>	12.28.2020 17:53	12.28.2020 17:59	12.28.2020 18:05	12.28.2020 18:11		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		696 49.9	2860 49.8	1160 9.98	49.3 9.96		
TPH by SW8015 Mod	<i>Extracted:</i>	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00		
	<i>Analyzed:</i>	12.28.2020 19:36	12.28.2020 19:56	12.28.2020 20:16	02.08.2021 09:45		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.8 49.8		
Diesel Range Organics (DRO)		96.5 49.9	94.6 49.8	84.4 49.8	94.3 K 49.8		
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	73.3 49.8	<49.8 49.8		
Total GRO-DRO		96.5 49.9	94.6 49.8	84.4 49.8	94.3 K 49.8		
Total TPH		96.5 49.9	94.6 49.8	158 49.8	94.3 K 49.8		

BRL - Below Reporting Limit

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





Analytical Report 682651

for

LT Environmental, Inc.

Project Manager: Dan Moir

Ross Ranch 6 Battery

TE012920159

02.10.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02.10.2021

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **682651**

Ross Ranch 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 682651. 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 Eurofins Xenco, LLC. 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. 682651 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 682651****LT Environmental, Inc., Arvada, CO****Ross Ranch 6 Battery**

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH01	S	12.23.2020 09:34	0.5 ft	682651-001
CH01 A	S	12.23.2020 10:10	2 ft	682651-002
CH02	S	12.23.2020 11:00	0.5 ft	682651-003
CH02 A	S	12.23.2020 11:20	2 ft	682651-004
CH02 B	S	12.23.2020 11:50	4 ft	682651-005
CH03	S	12.23.2020 13:30	0.5 ft	682651-006
CH03 A	S	12.23.2020 13:40	2 ft	682651-007
CH03 B	S	12.23.2020 13:50	4 ft	682651-008
CH03 C	S	12.23.2020 14:15	6 ft	682651-009
CH03 D	S	12.23.2020 15:00	8.5 ft	682651-010



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Ross Ranch 6 Battery*

Project ID: *TE012920159*
Work Order Number(s): *682651*

Report Date: *02.10.2021*
Date Received: *12.28.2020*

Sample receipt non conformances and comments:

New Version - Re ran sample CH03D for TPH. Re ran out of HOLD.

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01**
Lab Sample Id: 682651-001

Matrix: Soil
Date Collected: 12.23.2020 09:34

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.4	10.1	mg/kg	12.28.2020 16:53		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	317	49.9	mg/kg	12.28.2020 17:16		1
Diesel Range Organics (DRO)	C10C28DRO	4700	49.9	mg/kg	12.28.2020 17:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	168	49.9	mg/kg	12.28.2020 17:16		1
Total GRO-DRO	PHC628	5020	49.9	mg/kg	12.28.2020 17:16		1
Total TPH	PHC635	5190	49.9	mg/kg	12.28.2020 17:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.28.2020 17:16	
o-Terphenyl	84-15-1	102	%	70-135	12.28.2020 17:16	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01**
Lab Sample Id: 682651-001

Matrix: Soil
Date Collected: 12.23.2020 09:34

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.501	0.501	mg/kg	12.29.2020 13:55	U	1000
Toluene	108-88-3	17.7	2.00	mg/kg	12.29.2020 13:55		1000
Ethylbenzene	100-41-4	24.0	2.00	mg/kg	12.29.2020 13:55		1000
m,p-Xylenes	179601-23-1	98.4	4.01	mg/kg	12.29.2020 13:55		1000
o-Xylene	95-47-6	39.2	2.00	mg/kg	12.29.2020 13:55		1000
Total Xylenes	1330-20-7	138	2.00	mg/kg	12.29.2020 13:55		1000
Total BTEX		179	0.501	mg/kg	12.29.2020 13:55		1000
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.29.2020 13:55		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.29.2020 13:55		



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01 A**
Lab Sample Id: 682651-002

Matrix: Soil
Date Collected: 12.23.2020 10:10

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	12.28.2020 16:59	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	117	50.2	mg/kg	12.28.2020 17:36		1
Diesel Range Organics (DRO)	C10C28DRO	446	50.2	mg/kg	12.28.2020 17:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.28.2020 17:36	U	1
Total GRO-DRO	PHC628	563	50.2	mg/kg	12.28.2020 17:36		1
Total TPH	PHC635	563	50.2	mg/kg	12.28.2020 17:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.28.2020 17:36	
o-Terphenyl	84-15-1	106	%	70-135	12.28.2020 17:36	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01 A**
Lab Sample Id: 682651-002

Matrix: Soil
Date Collected: 12.23.2020 10:10

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.29.2020 12:48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.29.2020 12:48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.29.2020 12:48	U	1
m,p-Xylenes	179601-23-1	0.0153	0.00402	mg/kg	12.29.2020 12:48		1
o-Xylene	95-47-6	0.00869	0.00201	mg/kg	12.29.2020 12:48		1
Total Xylenes	1330-20-7	0.0240	0.00201	mg/kg	12.29.2020 12:48		1
Total BTEX		0.0240	0.00201	mg/kg	12.29.2020 12:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.29.2020 12:48	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.29.2020 12:48	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH02**
Lab Sample Id: 682651-003

Matrix: Soil
Date Collected: 12.23.2020 11:00

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1470	49.7	mg/kg	12.28.2020 17:05		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	262	49.8	mg/kg	12.28.2020 17:56		1
Diesel Range Organics (DRO)	C10C28DRO	4290	49.8	mg/kg	12.28.2020 17:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	333	49.8	mg/kg	12.28.2020 17:56		1
Total GRO-DRO	PHC628	4550	49.8	mg/kg	12.28.2020 17:56		1
Total TPH	PHC635	4890	49.8	mg/kg	12.28.2020 17:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	12.28.2020 17:56	
o-Terphenyl	84-15-1	106	%	70-135	12.28.2020 17:56	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH02**
Lab Sample Id: 682651-003

Matrix: Soil
Date Collected: 12.23.2020 11:00

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0504	0.0504	mg/kg	12.29.2020 13:11	U	100
Toluene	108-88-3	3.47	0.202	mg/kg	12.29.2020 13:11		100
Ethylbenzene	100-41-4	3.90	0.202	mg/kg	12.29.2020 13:11		100
m,p-Xylenes	179601-23-1	14.8	0.403	mg/kg	12.29.2020 13:11		100
o-Xylene	95-47-6	4.87	0.202	mg/kg	12.29.2020 13:11		100
Total Xylenes	1330-20-7	19.7	0.202	mg/kg	12.29.2020 13:11		100
Total BTEX		27.0	0.0504	mg/kg	12.29.2020 13:11		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.29.2020 13:11	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.29.2020 13:11	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH02 A**
Lab Sample Id: 682651-004

Matrix: Soil
Date Collected: 12.23.2020 11:20

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	305	9.98	mg/kg	12.28.2020 17:23		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.28.2020 18:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	200	50.3	mg/kg	12.28.2020 18:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	55.7	50.3	mg/kg	12.28.2020 18:16		1
Total GRO-DRO	PHC628	200	50.3	mg/kg	12.28.2020 18:16		1
Total TPH	PHC635	256	50.3	mg/kg	12.28.2020 18:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.28.2020 18:16	
o-Terphenyl	84-15-1	102	%	70-135	12.28.2020 18:16	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH02 A**
Lab Sample Id: 682651-004

Matrix: Soil
Date Collected: 12.23.2020 11:20

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.29.2020 11:18	U	1
Toluene	108-88-3	0.00818	0.00198	mg/kg	12.29.2020 11:18		1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.29.2020 11:18	U	1
m,p-Xylenes	179601-23-1	0.0149	0.00397	mg/kg	12.29.2020 11:18		1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.29.2020 11:18	U	1
Total Xylenes	1330-20-7	0.0149	0.00198	mg/kg	12.29.2020 11:18		1
Total BTEX		0.0231	0.00198	mg/kg	12.29.2020 11:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.29.2020 11:18	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.29.2020 11:18	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH02 B**
Lab Sample Id: 682651-005

Matrix: Soil
Date Collected: 12.23.2020 11:50

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	59.0	10.0	mg/kg	12.28.2020 17:29		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.28.2020 18:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	292	50.3	mg/kg	12.28.2020 18:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	62.8	50.3	mg/kg	12.28.2020 18:56		1
Total GRO-DRO	PHC628	292	50.3	mg/kg	12.28.2020 18:56		1
Total TPH	PHC635	355	50.3	mg/kg	12.28.2020 18:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.28.2020 18:56	
o-Terphenyl	84-15-1	98	%	70-135	12.28.2020 18:56	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH02 B**
Lab Sample Id: 682651-005

Matrix: Soil
Date Collected: 12.23.2020 11:50

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.28.2020 23:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.28.2020 23:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.28.2020 23:49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.28.2020 23:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.28.2020 23:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.28.2020 23:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.28.2020 23:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	125	%	70-130	12.28.2020 23:49		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.28.2020 23:49		



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03** Matrix: Soil Date Received: 12.28.2020 10:05
 Lab Sample Id: 682651-006 Date Collected: 12.23.2020 13:30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.28.2020 15:00 % Moisture:
 Seq Number: 3146199 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1510	50.1	mg/kg	12.28.2020 17:47		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.28.2020 12:00 % Moisture:
 Seq Number: 3146196 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	371	50.2	mg/kg	12.28.2020 19:16		1
Diesel Range Organics (DRO)	C10C28DRO	4520	50.2	mg/kg	12.28.2020 19:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	136	50.2	mg/kg	12.28.2020 19:16		1
Total GRO-DRO	PHC628	4890	50.2	mg/kg	12.28.2020 19:16		1
Total TPH	PHC635	5030	50.2	mg/kg	12.28.2020 19:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.28.2020 19:16	
o-Terphenyl	84-15-1	103	%	70-135	12.28.2020 19:16	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03**
Lab Sample Id: 682651-006

Matrix: Soil
Date Collected: 12.23.2020 13:30

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0996	0.0996	mg/kg	12.29.2020 14:53	U	50
Toluene	108-88-3	0.424	0.0996	mg/kg	12.29.2020 14:53		50
Ethylbenzene	100-41-4	0.784	0.0996	mg/kg	12.29.2020 14:53		50
m,p-Xylenes	179601-23-1	3.30	0.199	mg/kg	12.29.2020 14:53		50
o-Xylene	95-47-6	1.65	0.0996	mg/kg	12.29.2020 14:53		50
Total Xylenes	1330-20-7	4.95	0.0996	mg/kg	12.29.2020 14:53		50
Total BTEX		6.16	0.0996	mg/kg	12.29.2020 14:53		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.29.2020 14:53	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.29.2020 14:53	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 A**
Lab Sample Id: 682651-007

Matrix: Soil
Date Collected: 12.23.2020 13:40

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	696	49.9	mg/kg	12.28.2020 17:53		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 19:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	96.5	49.9	mg/kg	12.28.2020 19:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 19:36	U	1
Total GRO-DRO	PHC628	96.5	49.9	mg/kg	12.28.2020 19:36		1
Total TPH	PHC635	96.5	49.9	mg/kg	12.28.2020 19:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.28.2020 19:36	
o-Terphenyl	84-15-1	108	%	70-135	12.28.2020 19:36	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 A**
Lab Sample Id: 682651-007

Matrix: Soil
Date Collected: 12.23.2020 13:40

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.29.2020 11:41	U	1
Toluene	108-88-3	0.00770	0.00200	mg/kg	12.29.2020 11:41		1
Ethylbenzene	100-41-4	0.00991	0.00200	mg/kg	12.29.2020 11:41		1
m,p-Xylenes	179601-23-1	0.0498	0.00399	mg/kg	12.29.2020 11:41		1
o-Xylene	95-47-6	0.0195	0.00200	mg/kg	12.29.2020 11:41		1
Total Xylenes	1330-20-7	0.0693	0.00200	mg/kg	12.29.2020 11:41		1
Total BTEX		0.0869	0.00200	mg/kg	12.29.2020 11:41		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	12.29.2020 11:41		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.29.2020 11:41		



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 B**
Lab Sample Id: 682651-008

Matrix: Soil
Date Collected: 12.23.2020 13:50

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2860	49.8	mg/kg	12.28.2020 17:59		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.28.2020 19:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	94.6	49.8	mg/kg	12.28.2020 19:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.28.2020 19:56	U	1
Total GRO-DRO	PHC628	94.6	49.8	mg/kg	12.28.2020 19:56		1
Total TPH	PHC635	94.6	49.8	mg/kg	12.28.2020 19:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	12.28.2020 19:56	
o-Terphenyl	84-15-1	106	%	70-135	12.28.2020 19:56	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 B**
Lab Sample Id: 682651-008

Matrix: Soil
Date Collected: 12.23.2020 13:50

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.29.2020 00:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.29.2020 00:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.29.2020 00:56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.29.2020 00:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.29.2020 00:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.29.2020 00:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.29.2020 00:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.29.2020 00:56		
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.29.2020 00:56		



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 C**
Lab Sample Id: 682651-009

Matrix: Soil
Date Collected: 12.23.2020 14:15

Date Received: 12.28.2020 10:05
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1160	9.98	mg/kg	12.28.2020 18:05		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.28.2020 20:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	84.4	49.8	mg/kg	12.28.2020 20:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	73.3	49.8	mg/kg	12.28.2020 20:16		1
Total GRO-DRO	PHC628	84.4	49.8	mg/kg	12.28.2020 20:16		1
Total TPH	PHC635	158	49.8	mg/kg	12.28.2020 20:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.28.2020 20:16	
o-Terphenyl	84-15-1	110	%	70-135	12.28.2020 20:16	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 C**
Lab Sample Id: 682651-009

Matrix: Soil
Date Collected: 12.23.2020 14:15

Date Received: 12.28.2020 10:05
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.29.2020 01:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.29.2020 01:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.29.2020 01:19	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.29.2020 01:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.29.2020 01:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.29.2020 01:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.29.2020 01:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.29.2020 01:19		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.29.2020 01:19		



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 D**
Lab Sample Id: 682651-010

Matrix: Soil
Date Collected: 12.23.2020 15:00

Date Received: 12.28.2020 10:05
Sample Depth: 8.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.3	9.96	mg/kg	12.28.2020 18:11		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.08.2021 09:45	UK	1
Diesel Range Organics (DRO)	C10C28DRO	94.3	49.8	mg/kg	02.08.2021 09:45	K	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.08.2021 09:45	UK	1
Total GRO-DRO	PHC628	94.3	49.8	mg/kg	02.08.2021 09:45	K	1
Total TPH	PHC635	94.3	49.8	mg/kg	02.08.2021 09:45	K	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	02.08.2021 09:45	
o-Terphenyl	84-15-1	104	%	70-135	02.08.2021 09:45	



Certificate of Analytical Results 682651

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH03 D**
Lab Sample Id: 682651-010

Matrix: Soil
Date Collected: 12.23.2020 15:00

Date Received: 12.28.2020 10:05
Sample Depth: 8.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.29.2020 12:03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.29.2020 12:03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.29.2020 12:03	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.29.2020 12:03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.29.2020 12:03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.29.2020 12:03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.29.2020 12:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.29.2020 12:03		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.29.2020 12:03		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

MB Sample Id: 7717983-1-BLK

Matrix: Solid

LCS Sample Id: 7717983-1-BKS

Prep Method: E300P

Date Prep: 12.28.2020

LCSD Sample Id: 7717983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	258	103	90-110	0	20	mg/kg	12.28.2020 15:29	

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

Parent Sample Id: 682649-001

Matrix: Soil

MS Sample Id: 682649-001 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682649-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	202	203	100	203	100	90-110	0	20	mg/kg	12.28.2020 15:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

Parent Sample Id: 682651-003

Matrix: Soil

MS Sample Id: 682651-003 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682651-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1470	200	1680	105	1670	100	90-110	1	20	mg/kg	12.28.2020 17:11	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146196

MB Sample Id: 7717992-1-BLK

Matrix: Solid

LCS Sample Id: 7717992-1-BKS

Prep Method: SW8015P

Date Prep: 12.28.2020

LCSD Sample Id: 7717992-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1100	110	1160	116	70-135	5	35	mg/kg	12.28.2020 13:52	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1020	102	70-135	3	35	mg/kg	12.28.2020 13:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		118		106		70-135	%	12.28.2020 13:52
o-Terphenyl	114		92		107		70-135	%	12.28.2020 13:52

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146196

Matrix: Solid

MB Sample Id: 7717992-1-BLK

Prep Method: SW8015P

Date Prep: 12.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.28.2020 13:32	

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

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

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

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146196

Parent Sample Id: 682650-002

Matrix: Soil

MS Sample Id: 682650-002 S

Prep Method: SW8015P

Date Prep: 12.28.2020

MSD Sample Id: 682650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1200	120	1290	129	70-135	7	35	mg/kg	12.28.2020 14:55	
Diesel Range Organics (DRO)	96.8	1000	1210	111	1090	99	70-135	10	35	mg/kg	12.28.2020 14:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		107		70-135	%	12.28.2020 14:55
o-Terphenyl	106		114		70-135	%	12.28.2020 14:55

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146209

MB Sample Id: 7717957-1-BLK

Matrix: Solid

LCS Sample Id: 7717957-1-BKS

Prep Method: SW5035A

Date Prep: 12.28.2020

LCSD Sample Id: 7717957-1-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	0.0977	98	0.0915	92	70-130	7	35	mg/kg	12.28.2020 13:30	
Toluene	<0.00200	0.100	0.0938	94	0.0877	88	70-130	7	35	mg/kg	12.28.2020 13:30	
Ethylbenzene	<0.00200	0.100	0.0974	97	0.0906	91	71-129	7	35	mg/kg	12.28.2020 13:30	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.190	95	70-135	8	35	mg/kg	12.28.2020 13:30	
o-Xylene	<0.00200	0.100	0.101	101	0.0935	94	71-133	8	35	mg/kg	12.28.2020 13:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		97		70-130	%	12.28.2020 13:30
4-Bromofluorobenzene	111		109		107		70-130	%	12.28.2020 13:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146209

Parent Sample Id: 682650-002

Matrix: Soil

MS Sample Id: 682650-002 S

Prep Method: SW5035A

Date Prep: 12.28.2020

MSD Sample Id: 682650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0862	86	0.0994	100	70-130	14	35	mg/kg	12.28.2020 21:22	
Toluene	0.0198	0.0998	0.0912	72	0.0919	72	70-130	1	35	mg/kg	12.28.2020 21:22	
Ethylbenzene	0.00766	0.0998	0.0915	84	0.0955	88	71-129	4	35	mg/kg	12.28.2020 21:22	
m,p-Xylenes	0.0286	0.200	0.189	80	0.199	86	70-135	5	35	mg/kg	12.28.2020 21:22	
o-Xylene	0.00960	0.0998	0.0962	87	0.0999	91	71-133	4	35	mg/kg	12.28.2020 21:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		70-130	%	12.28.2020 21:22
4-Bromofluorobenzene	108		110		70-130	%	12.28.2020 21:22

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

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

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

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



Chain of Custody

Work Order No: 1082651

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	bbell@ltenv.com

Project Name:	Ross H. Lewis & Co.	Turn Around	Routine <input checked="" type="checkbox"/>
Project Number:	TE012920159	Rush:	
P.O. Number:		Due Date:	
Sampler's Name:	Benjamin Beill		

SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Temperature (°C):	0.8/0.6	Thermometer ID	T-M-003		
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:	10		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
CH01	5	12/23/20	0934	0.5'	1	X	X	X		
CH01A	1		1010	2'	1	X	X	X		
CH02	1		1100	0.5'	1	X	X	X		
CH02A	1		1120	2'	1	X	X	X		
CH02B	1		1150	4'	1	X	X	X		
CH03	1		1330	0.5'	1	X	X	X		
CH03A	1		1340	2'	1	X	X	X		
CH03B	1		1350	4'	1	X	X	X		
CH03C	1		1415	6'	1	X	X	X		
CH03D	1		1500	8.5'	1	X	X	X		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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 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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Benjamin Beill</i>	<i>Cice Dwyer</i>	12/28/2021 1005			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.28.2020 10.05.00 AM

Work Order #: 682651

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.28.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.28.2020

Certificate of Analysis Summary 682649

LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon 12.28.2020 10:05

Report Date: 01.14.2021 09:39

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	682649-001	682649-002				
	Field Id:	CH01 B	CH01 C				
	Depth:	4- ft	6- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	12.23.2020 10:19	12.23.2020 10:58				
BTEX by EPA 8021B	Extracted:	12.28.2020 13:49	12.28.2020 13:49				
	Analyzed:	12.28.2020 19:52	12.28.2020 20:14				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00199	0.00199	<0.00202	0.00202		
Toluene		0.0211	0.00199	0.0133	0.00202		
Ethylbenzene		0.0157	0.00199	0.0141	0.00202		
m,p-Xylenes		0.0774	0.00398	0.0557	0.00403		
o-Xylene		0.0275	0.00199	0.0205	0.00202		
Total Xylenes		0.105	0.00199	0.0762	0.00202		
Total BTEX		0.142	0.00199	0.104	0.00202		
Chloride by EPA 300	Extracted:	12.28.2020 15:00	12.28.2020 15:00				
	Analyzed:	12.28.2020 15:41	12.28.2020 15:59				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		<9.94	9.94	13.8	9.98		
TPH by SW8015 Mod	Extracted:	12.28.2020 12:00	12.28.2020 12:00				
	Analyzed:	12.28.2020 15:35	12.28.2020 15:55				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9		
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9		
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9		
Total GRO-DRO		<49.9	49.9	<49.9	49.9		
Total TPH		<49.9	49.9	<49.9	49.9		

BRL - Below Reporting Limit

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





Analytical Report 682649

for

LT Environmental, Inc.

Project Manager: Dan Moir

Ross Ranch 6 Battery

TE012920159

01.14.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.14.2021

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **682649**

Ross Ranch 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 682649. 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 Eurofins Xenco, LLC. 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. 682649 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 682649

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH01 B	S	12.23.2020 10:19	4 ft	682649-001
CH01 C	S	12.23.2020 10:58	6 ft	682649-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Ranch 6 Battery

Project ID: TE012920159
Work Order Number(s): 682649

Report Date: 01.14.2021
Date Received: 12.28.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 682649

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01 B**
Lab Sample Id: 682649-001

Matrix: Soil
Date Collected: 12.23.2020 10:19

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	12.28.2020 15:41	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 15:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 15:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 15:35	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 15:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 15:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.28.2020 15:35	
o-Terphenyl	84-15-1	103	%	70-135	12.28.2020 15:35	



Certificate of Analytical Results 682649

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01 B**
Lab Sample Id: 682649-001

Matrix: Soil
Date Collected: 12.23.2020 10:19

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.28.2020 19:52	U	1
Toluene	108-88-3	0.0211	0.00199	mg/kg	12.28.2020 19:52		1
Ethylbenzene	100-41-4	0.0157	0.00199	mg/kg	12.28.2020 19:52		1
m,p-Xylenes	179601-23-1	0.0774	0.00398	mg/kg	12.28.2020 19:52		1
o-Xylene	95-47-6	0.0275	0.00199	mg/kg	12.28.2020 19:52		1
Total Xylenes	1330-20-7	0.105	0.00199	mg/kg	12.28.2020 19:52		1
Total BTEX		0.142	0.00199	mg/kg	12.28.2020 19:52		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.28.2020 19:52		
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.28.2020 19:52		



Certificate of Analytical Results 682649

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01 C**
Lab Sample Id: 682649-002

Matrix: Soil
Date Collected: 12.23.2020 10:58

Date Received: 12.28.2020 10:05
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.8	9.98	mg/kg	12.28.2020 15:59		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 15:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 15:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 15:55	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 15:55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 15:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.28.2020 15:55	
o-Terphenyl	84-15-1	105	%	70-135	12.28.2020 15:55	



Certificate of Analytical Results 682649

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH01 C**
Lab Sample Id: 682649-002

Matrix: Soil
Date Collected: 12.23.2020 10:58

Date Received: 12.28.2020 10:05
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.28.2020 20:14	U	1
Toluene	108-88-3	0.0133	0.00202	mg/kg	12.28.2020 20:14		1
Ethylbenzene	100-41-4	0.0141	0.00202	mg/kg	12.28.2020 20:14		1
m,p-Xylenes	179601-23-1	0.0557	0.00403	mg/kg	12.28.2020 20:14		1
o-Xylene	95-47-6	0.0205	0.00202	mg/kg	12.28.2020 20:14		1
Total Xylenes	1330-20-7	0.0762	0.00202	mg/kg	12.28.2020 20:14		1
Total BTEX		0.104	0.00202	mg/kg	12.28.2020 20:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.28.2020 20:14	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.28.2020 20:14	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

MB Sample Id: 7717983-1-BLK

Matrix: Solid

LCS Sample Id: 7717983-1-BKS

Prep Method: E300P

Date Prep: 12.28.2020

LCSD Sample Id: 7717983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	258	103	90-110	0	20	mg/kg	12.28.2020 15:29	

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

Parent Sample Id: 682649-001

Matrix: Soil

MS Sample Id: 682649-001 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682649-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	202	203	100	203	100	90-110	0	20	mg/kg	12.28.2020 15:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

Parent Sample Id: 682651-003

Matrix: Soil

MS Sample Id: 682651-003 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682651-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1470	200	1680	105	1670	100	90-110	1	20	mg/kg	12.28.2020 17:11	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146194

MB Sample Id: 7717990-1-BLK

Matrix: Solid

LCS Sample Id: 7717990-1-BKS

Prep Method: SW8015P

Date Prep: 12.28.2020

LCSD Sample Id: 7717990-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	998	100	1080	108	70-135	8	35	mg/kg	12.28.2020 13:52	
Diesel Range Organics (DRO)	<50.0	1000	937	94	1060	106	70-135	12	35	mg/kg	12.28.2020 13:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		103		101		70-135	%	12.28.2020 13:52
o-Terphenyl	107		102		99		70-135	%	12.28.2020 13:52

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146194

Matrix: Solid

MB Sample Id: 7717990-1-BLK

Prep Method: SW8015P

Date Prep: 12.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.28.2020 13:32	

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

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

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

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146194

Parent Sample Id: 682305-001

Matrix: Soil

MS Sample Id: 682305-001 S

Prep Method: SW8015P

Date Prep: 12.28.2020

MSD Sample Id: 682305-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	1120	112	980	98	70-135	13	35	mg/kg	12.28.2020 14:55	
Diesel Range Organics (DRO)	<49.9	998	1000	100	1130	113	70-135	12	35	mg/kg	12.28.2020 14:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		102		70-135	%	12.28.2020 14:55
o-Terphenyl	106		116		70-135	%	12.28.2020 14:55

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146209

MB Sample Id: 7717957-1-BLK

Matrix: Solid

LCS Sample Id: 7717957-1-BKS

Prep Method: SW5035A

Date Prep: 12.28.2020

LCSD Sample Id: 7717957-1-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	0.0977	98	0.0915	92	70-130	7	35	mg/kg	12.28.2020 13:30	
Toluene	<0.00200	0.100	0.0938	94	0.0877	88	70-130	7	35	mg/kg	12.28.2020 13:30	
Ethylbenzene	<0.00200	0.100	0.0974	97	0.0906	91	71-129	7	35	mg/kg	12.28.2020 13:30	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.190	95	70-135	8	35	mg/kg	12.28.2020 13:30	
o-Xylene	<0.00200	0.100	0.101	101	0.0935	94	71-133	8	35	mg/kg	12.28.2020 13:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		97		70-130	%	12.28.2020 13:30
4-Bromofluorobenzene	111		109		107		70-130	%	12.28.2020 13:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146209

Parent Sample Id: 682650-002

Matrix: Soil

MS Sample Id: 682650-002 S

Prep Method: SW5035A

Date Prep: 12.28.2020

MSD Sample Id: 682650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0862	86	0.0994	100	70-130	14	35	mg/kg	12.28.2020 21:22	
Toluene	0.0198	0.0998	0.0912	72	0.0919	72	70-130	1	35	mg/kg	12.28.2020 21:22	
Ethylbenzene	0.00766	0.0998	0.0915	84	0.0955	88	71-129	4	35	mg/kg	12.28.2020 21:22	
m,p-Xylenes	0.0286	0.200	0.189	80	0.199	86	70-135	5	35	mg/kg	12.28.2020 21:22	
o-Xylene	0.00960	0.0998	0.0962	87	0.0999	91	71-133	4	35	mg/kg	12.28.2020 21:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		70-130	%	12.28.2020 21:22
4-Bromofluorobenzene	108		110		70-130	%	12.28.2020 21:22

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

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

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

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

Work Order No. 10821049

www.yenco.com

Page 1 of 1

Work Order Comments

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

State of Project:

Reporting Level II ☐ Level III ☐ ST/UST ☐ PRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

[illegible]

	No. of Containers
A 8015)	
PA 0=8021)	
(EPA 300.0)	
TAT starts the day received by the TAT	

[illegible]

1631/245.1/7470/7471: Hg

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	12/28/2010	<i>[Signature]</i>	12/28/2010

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.28.2020 10.05.00 AM

Work Order #: 682649

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.28.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.28.2020

Certificate of Analysis Summary 682650



LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159

Date Received in Lab: Mon 12.28.2020 10:05

Contact: Dan Moir

Report Date: 12.30.2020 07:28

Project Location:

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	682650-001	682650-002	682650-003	682650-004	682650-005	682650-006
	<i>Field Id:</i>	CH04	CH04 A	CH04 B	CH05	CH05 A	CH05 B
	<i>Depth:</i>	0.5- ft	2- ft	4- ft	0.5- ft	2- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.24.2020 08:10	12.24.2020 08:30	12.24.2020 08:50	12.24.2020 09:30	12.24.2020 09:45	12.24.2020 10:10
BTEX by EPA 8021B	<i>Extracted:</i>	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49	12.28.2020 13:49
	<i>Analyzed:</i>	12.28.2020 17:48	12.28.2020 15:33	12.28.2020 17:25	12.28.2020 18:10	12.28.2020 19:07	12.28.2020 19:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.0998 0.0998	<0.00199 0.00199	<0.00200 0.00200	<0.0992 0.0992	<0.000497 0.000497	<0.00200 0.00200
Toluene		37.9 0.399	0.0198 0.00199	0.177 0.00200	3.58 0.397	0.0424 0.00199	<0.00200 0.00200
Ethylbenzene		20.4 0.399	0.00766 0.00199	0.0593 0.00200	6.74 0.397	0.0704 0.00199	<0.00200 0.00200
m,p-Xylenes		92.9 0.798	0.0286 0.00398	0.338 0.00399	29.5 0.794	0.373 0.00398	<0.00399 0.00399
o-Xylene		35.1 0.399	0.00960 0.00199	0.118 0.00200	11.3 0.397	0.162 0.00199	<0.00200 0.00200
Total Xylenes		128 0.399	0.0382 0.00199	0.456 0.00200	40.8 0.397	0.535 0.00199	<0.00200 0.00200
Total BTEX		186 0.0998	0.0657 0.00199	0.692 0.00200	51.1 0.0992	0.648 0.000497	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00	12.28.2020 15:00
	<i>Analyzed:</i>	12.28.2020 16:05	12.28.2020 16:11	12.28.2020 16:17	12.28.2020 16:35	12.28.2020 16:41	12.28.2020 16:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		6070 50.0	1570 49.9	349 10.1	465 10.0	849 9.98	331 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00
	<i>Analyzed:</i>	12.28.2020 15:35	12.28.2020 14:32	12.28.2020 15:55	12.28.2020 16:15	12.28.2020 16:35	12.28.2020 16:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		381 50.0	<50.2 50.2	<50.1 50.1	171 50.1	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		4850 50.0	96.8 50.2	81.2 50.1	4980 50.1	81.8 49.8	81.7 50.0
Motor Oil Range Hydrocarbons (MRO)		761 50.0	<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.8 49.8	<50.0 50.0
Total GRO-DRO		5230 50.0	96.8 50.2	81.2 50.1	5150 50.1	81.8 49.8	81.7 50.0
Total TPH		5990 50.0	96.8 50.2	81.2 50.1	5150 50.1	81.8 49.8	81.7 50.0

BRL - Below Reporting Limit

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



Analytical Report 682650

for

LT Environmental, Inc.

Project Manager: Dan Moir

Ross Ranch 6 Battery

TE012920159

12.30.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.30.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **682650**

Ross Ranch 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 682650. 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 Eurofins Xenco, LLC. 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. 682650 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 682650****LT Environmental, Inc., Arvada, CO**

Ross Ranch 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH04	S	12.24.2020 08:10	0.5 ft	682650-001
CH04 A	S	12.24.2020 08:30	2 ft	682650-002
CH04 B	S	12.24.2020 08:50	4 ft	682650-003
CH05	S	12.24.2020 09:30	0.5 ft	682650-004
CH05 A	S	12.24.2020 09:45	2 ft	682650-005
CH05 B	S	12.24.2020 10:10	4 ft	682650-006



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Ranch 6 Battery

Project ID: TE012920159
Work Order Number(s): 682650

Report Date: 12.30.2020
Date Received: 12.28.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH04**
Lab Sample Id: 682650-001

Matrix: Soil
Date Collected: 12.24.2020 08:10

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6070	50.0	mg/kg	12.28.2020 16:05		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	381	50.0	mg/kg	12.28.2020 15:35		1
Diesel Range Organics (DRO)	C10C28DRO	4850	50.0	mg/kg	12.28.2020 15:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	761	50.0	mg/kg	12.28.2020 15:35		1
Total GRO-DRO	PHC628	5230	50.0	mg/kg	12.28.2020 15:35		1
Total TPH	PHC635	5990	50.0	mg/kg	12.28.2020 15:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	12.28.2020 15:35	
o-Terphenyl	84-15-1	105	%	70-135	12.28.2020 15:35	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH04**
Lab Sample Id: 682650-001

Matrix: Soil
Date Collected: 12.24.2020 08:10

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0998	0.0998	mg/kg	12.28.2020 17:48	U	200
Toluene	108-88-3	37.9	0.399	mg/kg	12.28.2020 17:48		200
Ethylbenzene	100-41-4	20.4	0.399	mg/kg	12.28.2020 17:48		200
m,p-Xylenes	179601-23-1	92.9	0.798	mg/kg	12.28.2020 17:48		200
o-Xylene	95-47-6	35.1	0.399	mg/kg	12.28.2020 17:48		200
Total Xylenes	1330-20-7	128	0.399	mg/kg	12.28.2020 17:48		200
Total BTEX		186	0.0998	mg/kg	12.28.2020 17:48		200
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.28.2020 17:48		
1,4-Difluorobenzene	540-36-3	94	%	70-130	12.28.2020 17:48		



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH04 A**
Lab Sample Id: 682650-002

Matrix: Soil
Date Collected: 12.24.2020 08:30

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1570	49.9	mg/kg	12.28.2020 16:11		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.28.2020 14:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	96.8	50.2	mg/kg	12.28.2020 14:32		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.28.2020 14:32	U	1
Total GRO-DRO	PHC628	96.8	50.2	mg/kg	12.28.2020 14:32		1
Total TPH	PHC635	96.8	50.2	mg/kg	12.28.2020 14:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.28.2020 14:32	
o-Terphenyl	84-15-1	108	%	70-135	12.28.2020 14:32	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH04 A**
Lab Sample Id: 682650-002

Matrix: Soil
Date Collected: 12.24.2020 08:30

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.28.2020 15:33	U	1
Toluene	108-88-3	0.0198	0.00199	mg/kg	12.28.2020 15:33		1
Ethylbenzene	100-41-4	0.00766	0.00199	mg/kg	12.28.2020 15:33		1
m,p-Xylenes	179601-23-1	0.0286	0.00398	mg/kg	12.28.2020 15:33		1
o-Xylene	95-47-6	0.00960	0.00199	mg/kg	12.28.2020 15:33		1
Total Xylenes	1330-20-7	0.0382	0.00199	mg/kg	12.28.2020 15:33		1
Total BTEX		0.0657	0.00199	mg/kg	12.28.2020 15:33		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.28.2020 15:33		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.28.2020 15:33		



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH04 B**
Lab Sample Id: 682650-003

Matrix: Soil
Date Collected: 12.24.2020 08:50

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	349	10.1	mg/kg	12.28.2020 16:17		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.28.2020 15:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.2	50.1	mg/kg	12.28.2020 15:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.28.2020 15:55	U	1
Total GRO-DRO	PHC628	81.2	50.1	mg/kg	12.28.2020 15:55		1
Total TPH	PHC635	81.2	50.1	mg/kg	12.28.2020 15:55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.28.2020 15:55	
o-Terphenyl	84-15-1	108	%	70-135	12.28.2020 15:55	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH04 B**
Lab Sample Id: 682650-003

Matrix: Soil
Date Collected: 12.24.2020 08:50

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.28.2020 17:25	U	1
Toluene	108-88-3	0.177	0.00200	mg/kg	12.28.2020 17:25		1
Ethylbenzene	100-41-4	0.0593	0.00200	mg/kg	12.28.2020 17:25		1
m,p-Xylenes	179601-23-1	0.338	0.00399	mg/kg	12.28.2020 17:25		1
o-Xylene	95-47-6	0.118	0.00200	mg/kg	12.28.2020 17:25		1
Total Xylenes	1330-20-7	0.456	0.00200	mg/kg	12.28.2020 17:25		1
Total BTEX		0.692	0.00200	mg/kg	12.28.2020 17:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	12.28.2020 17:25	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.28.2020 17:25	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH05**
Lab Sample Id: 682650-004

Matrix: Soil
Date Collected: 12.24.2020 09:30

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	465	10.0	mg/kg	12.28.2020 16:35		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	171	50.1	mg/kg	12.28.2020 16:15		1
Diesel Range Organics (DRO)	C10C28DRO	4980	50.1	mg/kg	12.28.2020 16:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.28.2020 16:15	U	1
Total GRO-DRO	PHC628	5150	50.1	mg/kg	12.28.2020 16:15		1
Total TPH	PHC635	5150	50.1	mg/kg	12.28.2020 16:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.28.2020 16:15	
o-Terphenyl	84-15-1	101	%	70-135	12.28.2020 16:15	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH05**
Lab Sample Id: 682650-004

Matrix: Soil
Date Collected: 12.24.2020 09:30

Date Received: 12.28.2020 10:05
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0992	0.0992	mg/kg	12.28.2020 18:10	U	200
Toluene	108-88-3	3.58	0.397	mg/kg	12.28.2020 18:10		200
Ethylbenzene	100-41-4	6.74	0.397	mg/kg	12.28.2020 18:10		200
m,p-Xylenes	179601-23-1	29.5	0.794	mg/kg	12.28.2020 18:10		200
o-Xylene	95-47-6	11.3	0.397	mg/kg	12.28.2020 18:10		200
Total Xylenes	1330-20-7	40.8	0.397	mg/kg	12.28.2020 18:10		200
Total BTEX		51.1	0.0992	mg/kg	12.28.2020 18:10		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.28.2020 18:10	
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.28.2020 18:10	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH05 A**
Lab Sample Id: 682650-005

Matrix: Soil
Date Collected: 12.24.2020 09:45

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	849	9.98	mg/kg	12.28.2020 16:41		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.28.2020 16:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.8	49.8	mg/kg	12.28.2020 16:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.28.2020 16:35	U	1
Total GRO-DRO	PHC628	81.8	49.8	mg/kg	12.28.2020 16:35		1
Total TPH	PHC635	81.8	49.8	mg/kg	12.28.2020 16:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.28.2020 16:35	
o-Terphenyl	84-15-1	116	%	70-135	12.28.2020 16:35	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH05 A**
Lab Sample Id: 682650-005

Matrix: Soil
Date Collected: 12.24.2020 09:45

Date Received: 12.28.2020 10:05
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000497	0.000497	mg/kg	12.28.2020 19:07	U	1
Toluene	108-88-3	0.0424	0.00199	mg/kg	12.28.2020 19:07		1
Ethylbenzene	100-41-4	0.0704	0.00199	mg/kg	12.28.2020 19:07		1
m,p-Xylenes	179601-23-1	0.373	0.00398	mg/kg	12.28.2020 19:07		1
o-Xylene	95-47-6	0.162	0.00199	mg/kg	12.28.2020 19:07		1
Total Xylenes	1330-20-7	0.535	0.00199	mg/kg	12.28.2020 19:07		1
Total BTEX		0.648	0.000497	mg/kg	12.28.2020 19:07		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.28.2020 19:07		
4-Bromofluorobenzene	460-00-4	128	%	70-130	12.28.2020 19:07		



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH05 B**
Lab Sample Id: 682650-006

Matrix: Soil
Date Collected: 12.24.2020 10:10

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 15:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	331	10.1	mg/kg	12.28.2020 16:47		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 16:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.7	50.0	mg/kg	12.28.2020 16:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 16:55	U	1
Total GRO-DRO	PHC628	81.7	50.0	mg/kg	12.28.2020 16:55		1
Total TPH	PHC635	81.7	50.0	mg/kg	12.28.2020 16:55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	12.28.2020 16:55	
o-Terphenyl	84-15-1	112	%	70-135	12.28.2020 16:55	



Certificate of Analytical Results 682650

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH05 B**
Lab Sample Id: 682650-006

Matrix: Soil
Date Collected: 12.24.2020 10:10

Date Received: 12.28.2020 10:05
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 13:49

% Moisture:
Basis: Wet Weight

Seq Number: 3146209

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.28.2020 19:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.28.2020 19:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.28.2020 19:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.28.2020 19:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.28.2020 19:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.28.2020 19:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.28.2020 19:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.28.2020 19:30	
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.28.2020 19:30	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

MB Sample Id: 7717983-1-BLK

Matrix: Solid

LCS Sample Id: 7717983-1-BKS

Prep Method: E300P

Date Prep: 12.28.2020

LCSD Sample Id: 7717983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	258	103	90-110	0	20	mg/kg	12.28.2020 15:29	

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

Parent Sample Id: 682649-001

Matrix: Soil

MS Sample Id: 682649-001 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682649-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	202	203	100	203	100	90-110	0	20	mg/kg	12.28.2020 15:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3146199

Parent Sample Id: 682651-003

Matrix: Soil

MS Sample Id: 682651-003 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682651-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1470	200	1680	105	1670	100	90-110	1	20	mg/kg	12.28.2020 17:11	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146196

MB Sample Id: 7717992-1-BLK

Matrix: Solid

LCS Sample Id: 7717992-1-BKS

Prep Method: SW8015P

Date Prep: 12.28.2020

LCSD Sample Id: 7717992-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1100	110	1160	116	70-135	5	35	mg/kg	12.28.2020 13:52	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1020	102	70-135	3	35	mg/kg	12.28.2020 13:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		118		106		70-135	%	12.28.2020 13:52
o-Terphenyl	114		92		107		70-135	%	12.28.2020 13:52

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146196

Matrix: Solid

MB Sample Id: 7717992-1-BLK

Prep Method: SW8015P

Date Prep: 12.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.28.2020 13:32	

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

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

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

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146196

Parent Sample Id: 682650-002

Matrix: Soil

MS Sample Id: 682650-002 S

Prep Method: SW8015P

Date Prep: 12.28.2020

MSD Sample Id: 682650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1200	120	1290	129	70-135	7	35	mg/kg	12.28.2020 14:55	
Diesel Range Organics (DRO)	96.8	1000	1210	111	1090	99	70-135	10	35	mg/kg	12.28.2020 14:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		107		70-135	%	12.28.2020 14:55
o-Terphenyl	106		114		70-135	%	12.28.2020 14:55

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146209

MB Sample Id: 7717957-1-BLK

Matrix: Solid

LCS Sample Id: 7717957-1-BKS

Prep Method: SW5035A

Date Prep: 12.28.2020

LCSD Sample Id: 7717957-1-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	0.0977	98	0.0915	92	70-130	7	35	mg/kg	12.28.2020 13:30	
Toluene	<0.00200	0.100	0.0938	94	0.0877	88	70-130	7	35	mg/kg	12.28.2020 13:30	
Ethylbenzene	<0.00200	0.100	0.0974	97	0.0906	91	71-129	7	35	mg/kg	12.28.2020 13:30	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.190	95	70-135	8	35	mg/kg	12.28.2020 13:30	
o-Xylene	<0.00200	0.100	0.101	101	0.0935	94	71-133	8	35	mg/kg	12.28.2020 13:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		97		70-130	%	12.28.2020 13:30
4-Bromofluorobenzene	111		109		107		70-130	%	12.28.2020 13:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146209

Parent Sample Id: 682650-002

Matrix: Soil

MS Sample Id: 682650-002 S

Prep Method: SW5035A

Date Prep: 12.28.2020

MSD Sample Id: 682650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0862	86	0.0994	100	70-130	14	35	mg/kg	12.28.2020 21:22	
Toluene	0.0198	0.0998	0.0912	72	0.0919	72	70-130	1	35	mg/kg	12.28.2020 21:22	
Ethylbenzene	0.00766	0.0998	0.0915	84	0.0955	88	71-129	4	35	mg/kg	12.28.2020 21:22	
m,p-Xylenes	0.0286	0.200	0.189	80	0.199	86	70-135	5	35	mg/kg	12.28.2020 21:22	
o-Xylene	0.00960	0.0998	0.0962	87	0.0999	91	71-133	4	35	mg/kg	12.28.2020 21:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		70-130	%	12.28.2020 21:22
4-Bromofluorobenzene	108		110		70-130	%	12.28.2020 21:22

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

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

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

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



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Work Order No: 1682650

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com mcafee@ltenv.com
Project Name:	<u>Hoss Ranch 6 Bldg 4</u>	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush:
Project Number:	<u>TE 012920154</u>	Routine	
P.O. Number:		Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST										Work Order Notes			
Temperature (°C):	Temp Blank:	Yes	No	Wet Ice:	Yes	No	Number of Containers										TAT starts the day received by the lab, if received by 4:30pm
Received Intact:	Yes	No	Thermometer ID														
Cooler Custody Seals:	Yes	No	Correction Factor:											Sample Comments			
Sample Custody Seals:	Yes	No	Total Containers:														
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)										
CH04	S	12/8/20	0810	0.5'	1	K	K	K									
CH04A			0830	2'													
CH04B			0850	4'													
CH05			0930	0.5'													
CH05A			0945	2'													
CH05B			1010	4'													

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 12/8/20 @ 1005

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 12/8/20 @ 1005

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 12/8/20 @ 1005

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.28.2020 10.05.00 AM

Work Order #: 682650

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	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

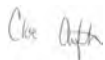
Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.28.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.28.2020

Certificate of Analysis Summary 684138

LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159
 Contact: Joseph Hernandez
 Project Location:

Date Received in Lab: Fri 01.08.2021 16:50
 Report Date: 01.14.2021 09:42
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684138-001 Field Id: CH06 Depth: 2- ft Matrix: SOIL Sampled: 01.08.2021 10:14					
BTEX by EPA 8021B	Extracted: 01.11.2021 17:21 Analyzed: 01.12.2021 09:57 Units/RL: mg/kg RL					
Benzene	<0.00199 0.00199					
Toluene	<0.00199 0.00199					
Ethylbenzene	0.00841 0.00199					
m,p-Xylenes	0.00736 0.00398					
o-Xylene	<0.00199 0.00199					
Total Xylenes	0.00736 0.00199					
Total BTEX	0.0158 0.00199					
Chloride by EPA 300	Extracted: 01.11.2021 12:00 Analyzed: 01.11.2021 22:03 Units/RL: mg/kg RL					
Chloride	1330 50.1					
TPH by SW8015 Mod	Extracted: 01.11.2021 17:00 Analyzed: 01.12.2021 02:04 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					

BRL - Below Reporting Limit

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





Analytical Report 684138

for

LT Environmental, Inc.

Project Manager: Joseph Hernandez

Ross Ranch 6 Battery

TE012920159

01.14.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.14.2021

Project Manager: **Joseph Hernandez**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **684138**

Ross Ranch 6 Battery

Project Address:

Joseph Hernandez:

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 Eurofins Xenco, LLC Report Number(s) 684138. 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 Eurofins Xenco, LLC. 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. 684138 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684138

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH06	S	01.08.2021 10:14	2 ft	684138-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Ranch 6 Battery

Project ID: TE012920159
Work Order Number(s): 684138

Report Date: 01.14.2021
Date Received: 01.08.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684138

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH06**
Lab Sample Id: 684138-001

Matrix: Soil
Date Collected: 01.08.2021 10:14

Date Received: 01.08.2021 16:50
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.11.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147501

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1330	50.1	mg/kg	01.11.2021 22:03		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.11.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.12.2021 02:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.12.2021 02:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.12.2021 02:04	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.12.2021 02:04	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.12.2021 02:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	01.12.2021 02:04	
o-Terphenyl	84-15-1	108	%	70-135	01.12.2021 02:04	



Certificate of Analytical Results 684138

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH06**
Lab Sample Id: 684138-001

Matrix: Soil
Date Collected: 01.08.2021 10:14

Date Received: 01.08.2021 16:50
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.11.2021 17:21

% Moisture:
Basis: Wet Weight

Seq Number: 3147500

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.12.2021 09:57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.12.2021 09:57	U	1
Ethylbenzene	100-41-4	0.00841	0.00199	mg/kg	01.12.2021 09:57		1
m,p-Xylenes	179601-23-1	0.00736	0.00398	mg/kg	01.12.2021 09:57		1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.12.2021 09:57	U	1
Total Xylenes	1330-20-7	0.00736	0.00199	mg/kg	01.12.2021 09:57		1
Total BTEX		0.0158	0.00199	mg/kg	01.12.2021 09:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.12.2021 09:57	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.12.2021 09:57	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

MB Sample Id: 7718893-1-BLK

Matrix: Solid

LCS Sample Id: 7718893-1-BKS

Prep Method: E300P

Date Prep: 01.11.2021

LCSD Sample Id: 7718893-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	258	103	90-110	1	20	mg/kg	01.11.2021 19:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-001

Matrix: Soil

MS Sample Id: 684049-001 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5210	200	5410	100	5410	99	90-110	0	20	mg/kg	01.11.2021 19:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-011

Matrix: Soil

MS Sample Id: 684049-011 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.3	199	214	100	215	100	90-110	0	20	mg/kg	01.11.2021 21:21	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147532

MB Sample Id: 7718944-1-BLK

Matrix: Solid

LCS Sample Id: 7718944-1-BKS

Prep Method: SW8015P

Date Prep: 01.11.2021

LCSD Sample Id: 7718944-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1040	104	1090	109	70-135	5	35	mg/kg	01.11.2021 18:29	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1000	100	70-135	7	35	mg/kg	01.11.2021 18:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		112		119		70-135	%	01.11.2021 18:29
o-Terphenyl	105		106		111		70-135	%	01.11.2021 18:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147532

Matrix: Solid

MB Sample Id: 7718944-1-BLK

Prep Method: SW8015P

Date Prep: 01.11.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.11.2021 18:09	

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

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

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

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147532

Parent Sample Id: 684058-021

Matrix: Soil

MS Sample Id: 684058-021 S

Prep Method: SW8015P

Date Prep: 01.11.2021

MSD Sample Id: 684058-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1220	122	1110	111	70-135	9	35	mg/kg	01.11.2021 19:29	
Diesel Range Organics (DRO)	<50.2	1000	1200	120	1210	121	70-135	1	35	mg/kg	01.11.2021 19:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		112		70-135	%	01.11.2021 19:29
o-Terphenyl	98		108		70-135	%	01.11.2021 19:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

MB Sample Id: 7718953-1-BLK

Matrix: Solid

LCS Sample Id: 7718953-1-BKS

Prep Method: SW5035A

Date Prep: 01.11.2021

LCSD Sample Id: 7718953-1-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	0.0985	99	0.0939	94	70-130	5	35	mg/kg	01.12.2021 00:49	
Toluene	<0.00200	0.100	0.0946	95	0.0899	90	70-130	5	35	mg/kg	01.12.2021 00:49	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.0945	95	71-129	1	35	mg/kg	01.12.2021 00:49	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.195	98	70-135	2	35	mg/kg	01.12.2021 00:49	
o-Xylene	<0.00200	0.100	0.0989	99	0.0960	96	71-133	3	35	mg/kg	01.12.2021 00:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		100		99		70-130	%	01.12.2021 00:49
4-Bromofluorobenzene	121		108		111		70-130	%	01.12.2021 00:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW5035A

Date Prep: 01.11.2021

MSD Sample Id: 684140-001 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	0.116	115	0.0889	89	70-130	26	35	mg/kg	01.12.2021 01:34	
Toluene	<0.00202	0.101	0.111	110	0.0836	84	70-130	28	35	mg/kg	01.12.2021 01:34	
Ethylbenzene	<0.00202	0.101	0.0962	95	0.0965	97	71-129	0	35	mg/kg	01.12.2021 01:34	
m,p-Xylenes	<0.00403	0.202	0.238	118	0.190	95	70-135	22	35	mg/kg	01.12.2021 01:34	
o-Xylene	<0.00202	0.101	0.116	115	0.0914	91	71-133	24	35	mg/kg	01.12.2021 01:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		86		70-130	%	01.12.2021 01:34
4-Bromofluorobenzene	112		105		70-130	%	01.12.2021 01:34

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

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

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

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



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

Work Order No: 1084138

Hobbs, NM (505) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 820-2000

www.xenco.com Page 1 of 1

Project Manager:	Joseph Hernandez	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmolir@ltenv.com mcafee@ltenv.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund State of Project: NM	
Reporting Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Wass Ranch (11/25/20) C. B. B. H. H.	Turn Around	<input checked="" type="checkbox"/>
Project Number:	TE012920159	Routine	<input checked="" type="checkbox"/>
P.O. Number:	1138871001	Rush:	
Sampler's Name:	Travis L Casey	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	0.6/0.1	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Received intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Thermometer ID:	TW14-007
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Correction Factor:	0.2
		Total Containers:	1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
CHOG	S	1-08-21	1014	2'

ANALYSIS REQUEST					Work Order Notes
Number of Containers					
					TAT starts the day received by the lab, if received by 4:30pm Sample Comments Discrete

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed				TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U			
Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.							
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		
1 <i>[Signature]</i>	1 <i>[Signature]</i>	1-8-21 1650	2				
2			4				
3			6				

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.08.2021 04.50.00 PM

Work Order #: 684138

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.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?	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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.11.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.11.2021

Certificate of Analysis Summary 684140

LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159
 Contact: Joseph Hernandez
 Project Location:

Date Received in Lab: Fri 01.08.2021 16:50
 Report Date: 01.14.2021 09:43
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684140-001 Field Id: CH06 A Depth: 8- ft Matrix: SOIL Sampled: 01.08.2021 11:23					
BTEX by EPA 8021B	Extracted: 01.11.2021 17:21 Analyzed: 01.12.2021 02:54 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: 01.11.2021 12:00 Analyzed: 01.11.2021 22:09 Units/RL: mg/kg RL					
Chloride	448 9.92					
TPH by SW8015 Mod	Extracted: 01.12.2021 16:03 Analyzed: 01.12.2021 18:13 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<49.9 49.9					
Diesel Range Organics (DRO)	<49.9 49.9					
Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9					
Total GRO-DRO	<49.9 49.9					
Total TPH	<49.9 49.9					

BRL - Below Reporting Limit

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





Analytical Report 684140

for

LT Environmental, Inc.

Project Manager: Joseph Hernandez

Ross Ranch 6 Battery

TE012920159

01.14.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.14.2021

Project Manager: **Joseph Hernandez**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **684140**

Ross Ranch 6 Battery

Project Address:

Joseph Hernandez:

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 Eurofins Xenco, LLC Report Number(s) 684140. 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 Eurofins Xenco, LLC. 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. 684140 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684140

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH06 A	S	01.08.2021 11:23	8 ft	684140-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Ranch 6 Battery

Project ID: TE012920159
Work Order Number(s): 684140

Report Date: 01.14.2021
Date Received: 01.08.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684140

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH06 A**
Lab Sample Id: 684140-001

Matrix: Soil
Date Collected: 01.08.2021 11:23

Date Received: 01.08.2021 16:50
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.11.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147501

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	448	9.92	mg/kg	01.11.2021 22:09		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 16:03

% Moisture:
Basis: Wet Weight

Seq Number: 3147632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.12.2021 18:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.12.2021 18:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.12.2021 18:13	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.12.2021 18:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.12.2021 18:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	01.12.2021 18:13	
o-Terphenyl	84-15-1	122	%	70-135	01.12.2021 18:13	



Certificate of Analytical Results 684140

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH06 A**
Lab Sample Id: 684140-001

Matrix: Soil
Date Collected: 01.08.2021 11:23

Date Received: 01.08.2021 16:50
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.11.2021 17:21

% Moisture:
Basis: Wet Weight

Seq Number: 3147500

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.12.2021 02:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.12.2021 02:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.12.2021 02:54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.12.2021 02:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.12.2021 02:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.12.2021 02:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.12.2021 02:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.12.2021 02:54	
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.12.2021 02:54	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

MB Sample Id: 7718893-1-BLK

Matrix: Solid

LCS Sample Id: 7718893-1-BKS

Prep Method: E300P

Date Prep: 01.11.2021

LCSD Sample Id: 7718893-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	258	103	90-110	1	20	mg/kg	01.11.2021 19:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-001

Matrix: Soil

MS Sample Id: 684049-001 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5210	200	5410	100	5410	99	90-110	0	20	mg/kg	01.11.2021 19:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-011

Matrix: Soil

MS Sample Id: 684049-011 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.3	199	214	100	215	100	90-110	0	20	mg/kg	01.11.2021 21:21	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

MB Sample Id: 7718953-1-BLK

Matrix: Solid

LCS Sample Id: 7718953-1-BKS

Prep Method: SW5035A

Date Prep: 01.11.2021

LCSD Sample Id: 7718953-1-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	0.0985	99	0.0939	94	70-130	5	35	mg/kg	01.12.2021 00:49	
Toluene	<0.00200	0.100	0.0946	95	0.0899	90	70-130	5	35	mg/kg	01.12.2021 00:49	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.0945	95	71-129	1	35	mg/kg	01.12.2021 00:49	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.195	98	70-135	2	35	mg/kg	01.12.2021 00:49	
o-Xylene	<0.00200	0.100	0.0989	99	0.0960	96	71-133	3	35	mg/kg	01.12.2021 00:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		100		99		70-130	%	01.12.2021 00:49
4-Bromofluorobenzene	121		108		111		70-130	%	01.12.2021 00:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW5035A

Date Prep: 01.11.2021

MSD Sample Id: 684140-001 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	0.116	115	0.0889	89	70-130	26	35	mg/kg	01.12.2021 01:34	
Toluene	<0.00202	0.101	0.111	110	0.0836	84	70-130	28	35	mg/kg	01.12.2021 01:34	
Ethylbenzene	<0.00202	0.101	0.0962	95	0.0965	97	71-129	0	35	mg/kg	01.12.2021 01:34	
m,p-Xylenes	<0.00403	0.202	0.238	118	0.190	95	70-135	22	35	mg/kg	01.12.2021 01:34	
o-Xylene	<0.00202	0.101	0.116	115	0.0914	91	71-133	24	35	mg/kg	01.12.2021 01:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		86		70-130	%	01.12.2021 01:34
4-Bromofluorobenzene	112		105		70-130	%	01.12.2021 01:34

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

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

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

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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-1111

Work Order No: 08790

Project Manager:	Joseph H. Williams		Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office		Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222		Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM	
Phone:	(432) 704-5178	Email:	tmorrissey@ltenv.com kjenning@ltenv.com lcasey@ltenv.com	

<div> <div>Work Order Comments</div> <div> <div> <div> <div>Program: UST/PST</div> <div> <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund </div> </div> <div> <div>State of Project:</div> <div>NM</div> </div> </div> <div> <div>Reporting Level: Level II</div> <div> <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV </div> </div> <div> <div>Deliverables: EDD</div> <div> <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: </div> </div> </div> </div>				
--	--	--	--	--

Project Name:	Koss Ranch (H790) Cell Hay	Turn Around
Project Number:	TE 012 920459	Routine <input checked="" type="checkbox"/>
P.O. Number:	11388 71001	Rush:
Sampler's Name:	Travis Casey	Due Date:

SAMPLE RECEIPT					
Temperature (°C):	0.6 / 0.4	Temp Blank:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Wet Ice:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Received Intact:	(Yes) No	Thermometer ID			
Cooler Custody Seals:	Yes <input checked="" type="radio"/> No <input type="radio"/>	N/A	Correction Factor:		
Sample Custody Seals:	Yes <input checked="" type="radio"/> No <input type="radio"/>	N/A	Total Containers:		

ANALYSIS REQUEST										Work Order Notes
										TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.08.2021 04.50.00 PM

Work Order #: 684140

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.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?	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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.11.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684142

LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159
 Contact: Joseph Hernandez
 Project Location:

Date Received in Lab: Fri 01.08.2021 16:50
 Report Date: 01.14.2021 09:44
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684142-001 Field Id: CH07 Depth: 2- ft Matrix: SOIL Sampled: 01.08.2021 12:30					
BTEX by EPA 8021B	Extracted: 01.11.2021 17:21 Analyzed: 01.12.2021 10:42 Units/RL: mg/kg RL					
Benzene	<0.00200 0.00200					
Toluene	<0.00200 0.00200					
Ethylbenzene	<0.00200 0.00200					
m,p-Xylenes	<0.00399 0.00399					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
Chloride by EPA 300	Extracted: 01.11.2021 12:00 Analyzed: 01.11.2021 22:15 Units/RL: mg/kg RL					
Chloride	113 9.92					
TPH by SW8015 Mod	Extracted: 01.12.2021 16:03 Analyzed: 01.12.2021 19:14 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					

BRL - Below Reporting Limit

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





Analytical Report 684142

for

LT Environmental, Inc.

Project Manager: Joseph Hernandez

Ross Ranch 6 Battery

TE012920159

01.14.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.14.2021

Project Manager: **Joseph Hernandez**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **684142**

Ross Ranch 6 Battery

Project Address:

Joseph Hernandez:

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 Eurofins Xenco, LLC Report Number(s) 684142. 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 Eurofins Xenco, LLC. 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. 684142 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684142

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH07	S	01.08.2021 12:30	2 ft	684142-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Ranch 6 Battery

Project ID: TE012920159
Work Order Number(s): 684142

Report Date: 01.14.2021
Date Received: 01.08.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684142

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH07** Matrix: Soil Date Received: 01.08.2021 16:50
 Lab Sample Id: 684142-001 Date Collected: 01.08.2021 12:30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.11.2021 12:00 % Moisture:
 Seq Number: 3147501 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	113	9.92	mg/kg	01.11.2021 22:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 01.12.2021 16:03 % Moisture:
 Seq Number: 3147632 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.12.2021 19:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.12.2021 19:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.12.2021 19:14	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.12.2021 19:14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.12.2021 19:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	01.12.2021 19:14	
o-Terphenyl	84-15-1	107	%	70-135	01.12.2021 19:14	



Certificate of Analytical Results 684142

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH07**
Lab Sample Id: 684142-001

Matrix: Soil
Date Collected: 01.08.2021 12:30

Date Received: 01.08.2021 16:50
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.11.2021 17:21

% Moisture:
Basis: Wet Weight

Seq Number: 3147500

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.12.2021 10:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.12.2021 10:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.12.2021 10:42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.12.2021 10:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.12.2021 10:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.12.2021 10:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.12.2021 10:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	01.12.2021 10:42		
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.12.2021 10:42		



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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

MB Sample Id: 7718893-1-BLK

Matrix: Solid

LCS Sample Id: 7718893-1-BKS

Prep Method: E300P

Date Prep: 01.11.2021

LCSD Sample Id: 7718893-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	258	103	90-110	1	20	mg/kg	01.11.2021 19:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-001

Matrix: Soil

MS Sample Id: 684049-001 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5210	200	5410	100	5410	99	90-110	0	20	mg/kg	01.11.2021 19:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-011

Matrix: Soil

MS Sample Id: 684049-011 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.3	199	214	100	215	100	90-110	0	20	mg/kg	01.11.2021 21:21	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

MB Sample Id: 7718953-1-BLK

Matrix: Solid

LCS Sample Id: 7718953-1-BKS

Prep Method: SW5035A

Date Prep: 01.11.2021

LCSD Sample Id: 7718953-1-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	0.0985	99	0.0939	94	70-130	5	35	mg/kg	01.12.2021 00:49	
Toluene	<0.00200	0.100	0.0946	95	0.0899	90	70-130	5	35	mg/kg	01.12.2021 00:49	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.0945	95	71-129	1	35	mg/kg	01.12.2021 00:49	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.195	98	70-135	2	35	mg/kg	01.12.2021 00:49	
o-Xylene	<0.00200	0.100	0.0989	99	0.0960	96	71-133	3	35	mg/kg	01.12.2021 00:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		100		99		70-130	%	01.12.2021 00:49
4-Bromofluorobenzene	121		108		111		70-130	%	01.12.2021 00:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW5035A

Date Prep: 01.11.2021

MSD Sample Id: 684140-001 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	0.116	115	0.0889	89	70-130	26	35	mg/kg	01.12.2021 01:34	
Toluene	<0.00202	0.101	0.111	110	0.0836	84	70-130	28	35	mg/kg	01.12.2021 01:34	
Ethylbenzene	<0.00202	0.101	0.0962	95	0.0965	97	71-129	0	35	mg/kg	01.12.2021 01:34	
m,p-Xylenes	<0.00403	0.202	0.238	118	0.190	95	70-135	22	35	mg/kg	01.12.2021 01:34	
o-Xylene	<0.00202	0.101	0.116	115	0.0914	91	71-133	24	35	mg/kg	01.12.2021 01:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		86		70-130	%	01.12.2021 01:34
4-Bromofluorobenzene	112		105		70-130	%	01.12.2021 01:34

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

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

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

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

Work Order No

1084142

Page 1 of 1

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project: NM	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> PRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	

ANALYSIS REQUEST						Work Order Notes
of Containers						
A 8015)						
PA 8021)						
(EPA 300.0)						
TAT starts the day received by the						

[illegible]

1631 / 245.1 / 7470 / 7471 : Hg

Date/Time

2

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.08.2021 04.50.00 PM

Work Order #: 684142

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist**Comments**

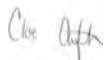
#1 *Temperature of cooler(s)?	.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	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 headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.11.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.11.2021

Certificate of Analysis Summary 684143

LT Environmental, Inc., Arvada, CO

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159
 Contact: Joseph Hernandez
 Project Location:

Date Received in Lab: Fri 01.08.2021 16:50
 Report Date: 01.14.2021 09:46
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684143-001 Field Id: CH07 A Depth: 8- ft Matrix: SOIL Sampled: 01.08.2021 13:09					
BTEX by EPA 8021B	Extracted: 01.11.2021 17:21 Analyzed: 01.12.2021 10:20 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: 01.11.2021 12:00 Analyzed: 01.11.2021 22:21 Units/RL: mg/kg RL					
Chloride	51.0 10.0					
TPH by SW8015 Mod	Extracted: 01.12.2021 16:03 Analyzed: 01.12.2021 19:34 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					

BRL - Below Reporting Limit

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





Analytical Report 684143

for

LT Environmental, Inc.

Project Manager: Joseph Hernandez

Ross Ranch 6 Battery

TE012920159

01.14.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.14.2021

Project Manager: **Joseph Hernandez**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **684143**

Ross Ranch 6 Battery

Project Address:

Joseph Hernandez:

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 Eurofins Xenco, LLC Report Number(s) 684143. 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 Eurofins Xenco, LLC. 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. 684143 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684143

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH07 A	S	01.08.2021 13:09	8 ft	684143-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Ranch 6 Battery

Project ID: TE012920159
Work Order Number(s): 684143

Report Date: 01.14.2021
Date Received: 01.08.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684143

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH07 A**
Lab Sample Id: 684143-001

Matrix: Soil
Date Collected: 01.08.2021 13:09

Date Received: 01.08.2021 16:50
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.11.2021 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147501

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.0	10.0	mg/kg	01.11.2021 22:21		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 16:03

% Moisture:
Basis: Wet Weight

Seq Number: 3147632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.12.2021 19:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.12.2021 19:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.12.2021 19:34	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.12.2021 19:34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.12.2021 19:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	01.12.2021 19:34	
o-Terphenyl	84-15-1	98	%	70-135	01.12.2021 19:34	



Certificate of Analytical Results 684143

LT Environmental, Inc., Arvada, CO

Ross Ranch 6 Battery

Sample Id: **CH07 A**
Lab Sample Id: 684143-001

Matrix: Soil
Date Collected: 01.08.2021 13:09

Date Received: 01.08.2021 16:50
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.11.2021 17:21

% Moisture:
Basis: Wet Weight

Seq Number: 3147500

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.12.2021 10:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.12.2021 10:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.12.2021 10:20	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.12.2021 10:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.12.2021 10:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.12.2021 10:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.12.2021 10:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.12.2021 10:20		
4-Bromofluorobenzene	460-00-4	124	%	70-130	01.12.2021 10:20		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

MB Sample Id: 7718893-1-BLK

Matrix: Solid

LCS Sample Id: 7718893-1-BKS

Prep Method: E300P

Date Prep: 01.11.2021

LCSD Sample Id: 7718893-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	258	103	90-110	1	20	mg/kg	01.11.2021 19:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-001

Matrix: Soil

MS Sample Id: 684049-001 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5210	200	5410	100	5410	99	90-110	0	20	mg/kg	01.11.2021 19:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3147501

Parent Sample Id: 684049-011

Matrix: Soil

MS Sample Id: 684049-011 S

Prep Method: E300P

Date Prep: 01.11.2021

MSD Sample Id: 684049-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.3	199	214	100	215	100	90-110	0	20	mg/kg	01.11.2021 21:21	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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



LT Environmental, Inc.

Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

MB Sample Id: 7718953-1-BLK

Matrix: Solid

LCS Sample Id: 7718953-1-BKS

Prep Method: SW5035A

Date Prep: 01.11.2021

LCSD Sample Id: 7718953-1-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	0.0985	99	0.0939	94	70-130	5	35	mg/kg	01.12.2021 00:49	
Toluene	<0.00200	0.100	0.0946	95	0.0899	90	70-130	5	35	mg/kg	01.12.2021 00:49	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.0945	95	71-129	1	35	mg/kg	01.12.2021 00:49	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.195	98	70-135	2	35	mg/kg	01.12.2021 00:49	
o-Xylene	<0.00200	0.100	0.0989	99	0.0960	96	71-133	3	35	mg/kg	01.12.2021 00:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		100		99		70-130	%	01.12.2021 00:49
4-Bromofluorobenzene	121		108		111		70-130	%	01.12.2021 00:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147500

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW5035A

Date Prep: 01.11.2021

MSD Sample Id: 684140-001 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	0.116	115	0.0889	89	70-130	26	35	mg/kg	01.12.2021 01:34	
Toluene	<0.00202	0.101	0.111	110	0.0836	84	70-130	28	35	mg/kg	01.12.2021 01:34	
Ethylbenzene	<0.00202	0.101	0.0962	95	0.0965	97	71-129	0	35	mg/kg	01.12.2021 01:34	
m,p-Xylenes	<0.00403	0.202	0.238	118	0.190	95	70-135	22	35	mg/kg	01.12.2021 01:34	
o-Xylene	<0.00202	0.101	0.116	115	0.0914	91	71-133	24	35	mg/kg	01.12.2021 01:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		86		70-130	%	01.12.2021 01:34
4-Bromofluorobenzene	112		105		70-130	%	01.12.2021 01:34

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

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

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

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



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Work Order No: 1684143

www.xenco.com Page 1 of 1

Project Manager:	Joseph Hernandez	Bill to: (if different)	Kyle Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	lmorrissey@ltenv.com klennings@ltenv.com lcasey@ltenv.com

Program: UST/PST	<input type="checkbox"/> PRP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund
State of Project:	NM			
Reporting Level:	<input type="checkbox"/> Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RRP
Deliverables:	<input type="checkbox"/> EDD	<input type="checkbox"/> ADAPT	<input type="checkbox"/>	<input type="checkbox"/> Other:

Project Name:	Ross Ranch (11/28/20) 6 Par		Turn Around	ANALYSIS REQUEST										Work Order Notes					
Project Number:	TE012920159		Routine	<input checked="" type="checkbox"/>															
P.O. Number:	1138871001		Rush:																
Sampler's Name:	Travis Casey		Due Date:																
SAMPLE RECEIPT				Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No										
Temperature (°C):	0.6/0.4		Thermometer ID:	TMM007															
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Correction Factor:	-0.2															
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Total Containers:	1															
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers										Sample Comments				
CHOFA	S	1-08-21	1309	8'	1	TPH (EPA 8015)	X	BTEX (EPA 8021)	X	Chloride (EPA 300.0)	X	Discrete							
														TAT starts the day received by the lab, if received by 4:30pm					

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/8/21 16:50			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.08.2021 04.50.00 PM

Work Order #: 684143

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist**Comments**

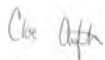
#1 *Temperature of cooler(s)?	.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	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 headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.11.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.11.2021

Certificate of Analysis Summary 684371

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:26

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684371-001 Field Id: CH08 Depth: 1- ft Matrix: SOIL Sampled: 01.11.2021 09:49					
BTEX by EPA 8021B	Extracted: 01.13.2021 15:23 Analyzed: 01.14.2021 09:18 Units/RL: mg/kg RL					
Benzene	<0.00202 0.00202					
Toluene	<0.00202 0.00202					
Ethylbenzene	<0.00202 0.00202					
m,p-Xylenes	<0.00403 0.00403					
o-Xylene	<0.00202 0.00202					
Total Xylenes	<0.00202 0.00202					
Total BTEX	<0.00202 0.00202					
Chloride by EPA 300	Extracted: 01.12.2021 16:30 Analyzed: 01.12.2021 19:28 Units/RL: mg/kg RL					
Chloride	315 9.90					
TPH by SW8015 Mod	Extracted: 01.12.2021 18:00 Analyzed: 01.13.2021 03:09 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0					
Diesel Range Organics (DRO)	<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0					
Total GRO-DRO	<50.0 50.0					
Total TPH	<50.0 50.0					

BRL - Below Reporting Limit

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





Analytical Report 684371

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684371**

Ross Ranch (11/28/20) 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684371. 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 Eurofins Xenco, LLC. 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. 684371 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684371

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH08	S	01.11.2021 09:49	1 ft	684371-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684371

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684371

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH08**
Lab Sample Id: 684371-001

Matrix: Soil
Date Collected: 01.11.2021 09:49

Date Received: 01.12.2021 13:30
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	315	9.90	mg/kg	01.12.2021 19:28		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147633

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.13.2021 03:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.13.2021 03:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.13.2021 03:09	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.13.2021 03:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.13.2021 03:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	01.13.2021 03:09	
o-Terphenyl	84-15-1	112	%	70-135	01.13.2021 03:09	



Certificate of Analytical Results 684371

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH08**
Lab Sample Id: 684371-001

Matrix: Soil
Date Collected: 01.11.2021 09:49

Date Received: 01.12.2021 13:30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.14.2021 09:18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.14.2021 09:18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.14.2021 09:18	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.14.2021 09:18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.14.2021 09:18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.14.2021 09:18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.14.2021 09:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.14.2021 09:18	
4-Bromofluorobenzene	460-00-4	115	%	70-130	01.14.2021 09:18	



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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

MB Sample Id: 7719039-1-BLK

Matrix: Solid

LCS Sample Id: 7719039-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719039-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1100	110	70-135	5	35	mg/kg	01.13.2021 02:29	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1180	118	70-135	16	35	mg/kg	01.13.2021 02:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		84		114		70-135	%	01.13.2021 02:29
o-Terphenyl	88		89		96		70-135	%	01.13.2021 02:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Matrix: Solid

MB Sample Id: 7719039-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.13.2021 02:10	

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

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

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

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

WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1190	119	1030	103	70-135	14	35	mg/kg	01.13.2021 03:28	
Diesel Range Organics (DRO)	<50.2	1000	1090	109	1170	117	70-135	7	35	mg/kg	01.13.2021 03:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		117		70-135	%	01.13.2021 03:28
o-Terphenyl	108		106		70-135	%	01.13.2021 03:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Chain of Custody

Work Order No: 1084371

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Dan.Moir@wsp.com, Joe.Hernandez@wsp.com

Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:		Work Order Comments
--	--	----------------------------

Project Name:	Ross Ranch (11/28/20) 6 Battery	Turn Around	
Project Number:	TE012920159	Routine	
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Temperature (°C):	14/11.2	Thermometer ID	T-NM-007		
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Total Containers:	1		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST										Work Order Notes
					Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)							
CH08	S	1/11/2021	949	1'	1	X	X	X							
[Signature]															

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[Signature]	[Signature]	1-12-21 1330			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684371

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684373

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:27

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684373-001 Field Id: CH08 A Depth: 2- ft Matrix: SOIL Sampled: 01.11.2021 10:05					
BTEX by EPA 8021B	Extracted: 01.13.2021 15:23 Analyzed: 01.14.2021 09:41 Units/RL: mg/kg RL					
Benzene	<0.00199 0.00199					
Toluene	<0.00199 0.00199					
Ethylbenzene	<0.00199 0.00199					
m,p-Xylenes	<0.00398 0.00398					
o-Xylene	<0.00199 0.00199					
Total Xylenes	<0.00199 0.00199					
Total BTEX	<0.00199 0.00199					
Chloride by EPA 300	Extracted: 01.12.2021 16:30 Analyzed: 01.12.2021 19:45 Units/RL: mg/kg RL					
Chloride	105 10.0					
TPH by SW8015 Mod	Extracted: 01.12.2021 18:00 Analyzed: 01.13.2021 04:08 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.1 50.1					
Diesel Range Organics (DRO)	<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)	<50.1 50.1					
Total GRO-DRO	<50.1 50.1					
Total TPH	<50.1 50.1					

BRL - Below Reporting Limit

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





Analytical Report 684373

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684373**

Ross Ranch (11/28/20) 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684373. 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 Eurofins Xenco, LLC. 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. 684373 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684373

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH08 A	S	01.11.2021 10:05	2 ft	684373-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684373

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684373

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH08 A**
Lab Sample Id: 684373-001

Matrix: Soil
Date Collected: 01.11.2021 10:05

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	105	10.0	mg/kg	01.12.2021 19:45		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147633

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.13.2021 04:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.13.2021 04:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.13.2021 04:08	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.13.2021 04:08	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.13.2021 04:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.13.2021 04:08	
o-Terphenyl	84-15-1	106	%	70-135	01.13.2021 04:08	



Certificate of Analytical Results 684373

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH08 A**
 Lab Sample Id: 684373-001

Matrix: Soil
 Date Collected: 01.11.2021 10:05

Date Received: 01.12.2021 13:30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
 Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.14.2021 09:41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.14.2021 09:41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.14.2021 09:41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.14.2021 09:41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.14.2021 09:41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.14.2021 09:41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.14.2021 09:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	01.14.2021 09:41	
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.14.2021 09:41	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

MB Sample Id: 7719039-1-BLK

Matrix: Solid

LCS Sample Id: 7719039-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719039-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1100	110	70-135	5	35	mg/kg	01.13.2021 02:29	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1180	118	70-135	16	35	mg/kg	01.13.2021 02:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		84		114		70-135	%	01.13.2021 02:29
o-Terphenyl	88		89		96		70-135	%	01.13.2021 02:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Matrix: Solid

MB Sample Id: 7719039-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.13.2021 02:10	

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

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

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

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1190	119	1030	103	70-135	14	35	mg/kg	01.13.2021 03:28	
Diesel Range Organics (DRO)	<50.2	1000	1090	109	1170	117	70-135	7	35	mg/kg	01.13.2021 03:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		117		70-135	%	01.13.2021 03:28
o-Terphenyl	108		106		70-135	%	01.13.2021 03:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813)

Work Order No: 6084343

Chain of Custody

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Dan.Moir@wsp.com, Joe.Hernandez@wsp.com

Work Order Comments									
Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>									
State of Project:									
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>									
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="text"/>									

[illegible]

SAMPLE RECEIPT						
Temperature (°C):	Temp Blank:		<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Received Intact:			Thermometer ID			
Cooler Custody Seals:	Yes	No	Correction Factor: -0.2			
Sample Custody Seals:	Yes	No	N/A	Total Containers:	1	

Number of Containers

(EPA 8015)

(EPA 0=8021)

Side (EPA 300.0)

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed			TCLP	/ SPLP	6010:	8RCRA	Sb	As	Ba	Be	Cd <td>Cr</td> <td>Co</td> <td>Cu</td> <td>Pb</td> <td>Mn</td> <td>Mo</td> <td>Ni</td> <td>Se</td> <td>Ag</td> <td>Ti</td> <td>U</td> <td colspan="10"></td>	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U											
																																	1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

[illegible]

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684373

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

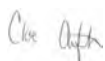
Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684375

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:27

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684375-001 Field Id: CH09 Depth: 2- ft Matrix: SOIL Sampled: 01.11.2021 10:33					
BTEX by EPA 8021B	Extracted: 01.13.2021 15:23 Analyzed: 01.14.2021 10:03 Units/RL: mg/kg RL					
Benzene	<0.00200 0.00200					
Toluene	<0.00200 0.00200					
Ethylbenzene	<0.00200 0.00200					
m,p-Xylenes	<0.00399 0.00399					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
Chloride by EPA 300	Extracted: 01.12.2021 16:30 Analyzed: 01.12.2021 19:51 Units/RL: mg/kg RL					
Chloride	125 50.1					
TPH by SW8015 Mod	Extracted: 01.12.2021 18:00 Analyzed: 01.13.2021 04:27 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.1 50.1					
Diesel Range Organics (DRO)	<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)	<50.1 50.1					
Total GRO-DRO	<50.1 50.1					
Total TPH	<50.1 50.1					

BRL - Below Reporting Limit

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





Environment Testing
Xenco

Analytical Report 684375

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684375**

Ross Ranch (11/28/20) 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684375. 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 Eurofins Xenco, LLC. 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. 684375 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684375

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH09	S	01.11.2021 10:33	2 ft	684375-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684375

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684375

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH09**
Lab Sample Id: 684375-001

Matrix: Soil
Date Collected: 01.11.2021 10:33

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	125	50.1	mg/kg	01.12.2021 19:51		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147633

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.13.2021 04:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.13.2021 04:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.13.2021 04:27	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.13.2021 04:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.13.2021 04:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.13.2021 04:27	
o-Terphenyl	84-15-1	118	%	70-135	01.13.2021 04:27	



Certificate of Analytical Results 684375

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH09**
Lab Sample Id: 684375-001

Matrix: Soil
Date Collected: 01.11.2021 10:33

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.14.2021 10:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.14.2021 10:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.14.2021 10:03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.14.2021 10:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.14.2021 10:03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.14.2021 10:03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.14.2021 10:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.14.2021 10:03	
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.14.2021 10:03	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

MB Sample Id: 7719039-1-BLK

Matrix: Solid

LCS Sample Id: 7719039-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719039-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1100	110	70-135	5	35	mg/kg	01.13.2021 02:29	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1180	118	70-135	16	35	mg/kg	01.13.2021 02:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		84		114		70-135	%	01.13.2021 02:29
o-Terphenyl	88		89		96		70-135	%	01.13.2021 02:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Matrix: Solid

MB Sample Id: 7719039-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.13.2021 02:10	

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

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

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

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1190	119	1030	103	70-135	14	35	mg/kg	01.13.2021 03:28	
Diesel Range Organics (DRO)	<50.2	1000	1090	109	1170	117	70-135	7	35	mg/kg	01.13.2021 03:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		117		70-135	%	01.13.2021 03:28
o-Terphenyl	108		106		70-135	%	01.13.2021 03:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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

Work Order No: 4875-15

Page 1 of 1

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> RRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting Level II	<input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

[illegible]

TAT starts the day received by the lab, if received by 4:30pm	
---	--

[illegible]

Total 2007/2010
 2008/2009

Texas 11 Al Sb As Ba Be B Cd Ga Gr Co Cu Ee Pb Ms Ms Me Ni K C A S G N S Ti S V Cr Mn

K Se Ag SiO₂ Na Sr H Sn U V Zn
1631 / 245.1 / 7470 / 7471 : Hq

6

	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
1				
2				
3				
4				
5				
6				

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684375

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684377

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:28

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684377-001 Field Id: CH09A Depth: 8- ft Matrix: SOIL Sampled: 01.11.2021 11:20					
BTEX by EPA 8021B	Extracted: 01.13.2021 15:23 Analyzed: 01.14.2021 10:26 Units/RL: mg/kg RL					
Benzene	<0.00201 0.00201					
Toluene	<0.00201 0.00201					
Ethylbenzene	<0.00201 0.00201					
m,p-Xylenes	<0.00402 0.00402					
o-Xylene	<0.00201 0.00201					
Total Xylenes	<0.00201 0.00201					
Total BTEX	<0.00201 0.00201					
Chloride by EPA 300	Extracted: 01.12.2021 16:30 Analyzed: 01.12.2021 19:57 Units/RL: mg/kg RL					
Chloride	26.5 10.0					
TPH by SW8015 Mod	Extracted: 01.12.2021 18:00 Analyzed: 01.13.2021 04:46 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					

BRL - Below Reporting Limit

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





Analytical Report 684377

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684377**

Ross Ranch (11/28/20) 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684377. 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 Eurofins Xenco, LLC. 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. 684377 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684377

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH09A	S	01.11.2021 11:20	8 ft	684377-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684377

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684377

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH09A**
Lab Sample Id: 684377-001

Matrix: Soil
Date Collected: 01.11.2021 11:20

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.5	10.0	mg/kg	01.12.2021 19:57		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147633

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.13.2021 04:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.13.2021 04:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.13.2021 04:46	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.13.2021 04:46	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.13.2021 04:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	01.13.2021 04:46	
o-Terphenyl	84-15-1	122	%	70-135	01.13.2021 04:46	



Certificate of Analytical Results 684377

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH09A**
Lab Sample Id: 684377-001

Matrix: Soil
Date Collected: 01.11.2021 11:20

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.14.2021 10:26	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.14.2021 10:26	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.14.2021 10:26	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.14.2021 10:26	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.14.2021 10:26	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.14.2021 10:26	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.14.2021 10:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	01.14.2021 10:26		
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.14.2021 10:26		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

MB Sample Id: 7719039-1-BLK

Matrix: Solid

LCS Sample Id: 7719039-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719039-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1100	110	70-135	5	35	mg/kg	01.13.2021 02:29	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1180	118	70-135	16	35	mg/kg	01.13.2021 02:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		84		114		70-135	%	01.13.2021 02:29
o-Terphenyl	88		89		96		70-135	%	01.13.2021 02:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Matrix: Solid

MB Sample Id: 7719039-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.13.2021 02:10	

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

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

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

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1190	119	1030	103	70-135	14	35	mg/kg	01.13.2021 03:28	
Diesel Range Organics (DRO)	<50.2	1000	1090	109	1170	117	70-135	7	35	mg/kg	01.13.2021 03:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		117		70-135	%	01.13.2021 03:28
o-Terphenyl	108		106		70-135	%	01.13.2021 03:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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



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
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-1111
Dallas, TX (972) 343-3333 Fort Worth, TX (817) 335-3333
Houston, TX (281) 335-3333 Phoenix, NM (575-392-7550)

Work Order No: 1084377

www.xenco.com Page 1 of 1

Page 1 of 1
www.xenco.com

		Work Order Comments	
Project Manager: Dan Moir Company Name: WSP USA Inc., Permian office Address: 3300 North A Street City, State ZIP: Midland, TX 79705 Phone: (432) 236-3849		Bill to: (if different) Kyle Littrell Company Name: XTO Energy Address: 3104 East Green Street City, State ZIP: Carlsbad, NM 88220 Email: Dan.Moir@wsp.com, Joe.Hernandez@wsp.com	
Program: UST/PST <input type="checkbox"/> RRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:		Work Order Notes	

[illegible]

SAMPLE RECEIPT		Temp Blank:		Well Ice:	
		Yes	No	Yes	No
Temperature (°C):	14/1.2	Thermometer ID			
Received Intact:	Yes	No	7-NH-001		
Cooler Custody Seals:	Yes	No	Correction Factor: -0.2		
Sample Custody Seals:	Yes	No	Total Containers: 1		

Number of Containers

EPA 8015)

(EPA 0=8021)

ide (EPA 300.0)

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Total	200.7 / 6010	200.8 / 6020:
8RCRA	13PPM	1631 / 2451 / 7470 / 7471
Texas	Al Sb As Ba Be B Cd Ca Cl Co Cu Fe Fd Ni Se Ag Ti	Hq

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mill Mo Ni Se Ag H H

— 3 —

[illegible][illegible]

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684377

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684379



WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:30

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	684379-001					
	Field Id:	CH10					
	Depth:	2- ft					
	Matrix:	SOIL					
	Sampled:	01.11.2021 11:40					
BTEX by EPA 8021B	Extracted:	01.13.2021 15:23					
	Analyzed:	01.14.2021 10:48					
	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:	01.12.2021 16:30					
	Analyzed:	01.12.2021 20:03					
	Units/RL:	mg/kg RL					
Chloride		25.1 10.1					
TPH by SW8015 Mod	Extracted:	01.12.2021 18:00					
	Analyzed:	01.13.2021 05:06					
	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					

BRL - Below Reporting Limit

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



Analytical Report 684379

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684379**

Ross Ranch (11/28/20) 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684379. 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 Eurofins Xenco, LLC. 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. 684379 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684379

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH10	S	01.11.2021 11:40	2 ft	684379-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684379

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684379

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH10**
Lab Sample Id: 684379-001

Matrix: Soil
Date Collected: 01.11.2021 11:40

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25.1	10.1	mg/kg	01.12.2021 20:03		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147633

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.13.2021 05:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.13.2021 05:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.13.2021 05:06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.13.2021 05:06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.13.2021 05:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	01.13.2021 05:06	
o-Terphenyl	84-15-1	98	%	70-135	01.13.2021 05:06	



Certificate of Analytical Results 684379

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH10**
Lab Sample Id: 684379-001

Matrix: Soil
Date Collected: 01.11.2021 11:40

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.14.2021 10:48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.14.2021 10:48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.14.2021 10:48	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.14.2021 10:48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.14.2021 10:48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.14.2021 10:48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.14.2021 10:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.14.2021 10:48	
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.14.2021 10:48	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

MB Sample Id: 7719039-1-BLK

Matrix: Solid

LCS Sample Id: 7719039-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719039-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1100	110	70-135	5	35	mg/kg	01.13.2021 02:29	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1180	118	70-135	16	35	mg/kg	01.13.2021 02:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		84		114		70-135	%	01.13.2021 02:29
o-Terphenyl	88		89		96		70-135	%	01.13.2021 02:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Matrix: Solid

MB Sample Id: 7719039-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.13.2021 02:10	

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

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

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

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147633

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1190	119	1030	103	70-135	14	35	mg/kg	01.13.2021 03:28	
Diesel Range Organics (DRO)	<50.2	1000	1090	109	1170	117	70-135	7	35	mg/kg	01.13.2021 03:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		117		70-135	%	01.13.2021 03:28
o-Terphenyl	108		106		70-135	%	01.13.2021 03:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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



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
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 251-1111
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No: 684379

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Dan.Moir@wsp.com, Joe.Hernandez@wsp.com

Work Order Comments									
Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>									
State of Project:									
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>									
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:									

Project Name:	Ross Ranch (11/28/20) 6 Battery	Turn Around	ANALYSIS REQUEST							Work Order Notes
Project Number:	TE012920159	Routine <input checked="" type="checkbox"/>								
P.O. Number:		Rush:								
Sample's Name:	Spencer Lo	Due Date:								

SAMPLE RECEIPT		Temp Blank:		Wet Ice:	
		(Yes)	No	(Yes)	No
Temperature (°C):	1.4/1.2				
Received Intact:	Yes No				
Cooler Custody Seals:	Yes (No) N/A				
Sample Custody Seals:	Yes (No) N/A				
Thermometer ID		7-1111-002			
Correction Factor:		-0.2			
Total Containers:		1			

Number of Containers

EPA 8015)

(EPA 0=8021)

de (EPA 300.0)

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010	200.8 / 6020:
8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	1631 / 245.1 / 7470 / 7471 : Hg
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions to Xenco. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>Cecilia</i>	12-21-13			

Revised Date 05/14/18 Rev. 2018

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684379

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684381

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:29

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684381-001 Field Id: CH10A Depth: 8- ft Matrix: SOIL Sampled: 01.11.2021 12:40					
BTEX by EPA 8021B	Extracted: 01.13.2021 15:23 Analyzed: 01.14.2021 11:11 Units/RL: mg/kg RL					
Benzene	<0.00199 0.00199					
Toluene	<0.00199 0.00199					
Ethylbenzene	<0.00199 0.00199					
m,p-Xylenes	<0.00398 0.00398					
o-Xylene	<0.00199 0.00199					
Total Xylenes	<0.00199 0.00199					
Total BTEX	<0.00199 0.00199					
Chloride by EPA 300	Extracted: 01.12.2021 16:30 Analyzed: 01.12.2021 20:21 Units/RL: mg/kg RL					
Chloride	96.3 50.3					
TPH by SW8015 Mod	Extracted: 01.12.2021 16:03 Analyzed: 01.12.2021 20:34 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<49.9 49.9					
Diesel Range Organics (DRO)	<49.9 49.9					
Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9					
Total GRO-DRO	<49.9 49.9					
Total TPH	<49.9 49.9					

BRL - Below Reporting Limit

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





Analytical Report 684381

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684381**

Ross Ranch (11/28/20) 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684381. 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 Eurofins Xenco, LLC. 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. 684381 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684381

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH10A	S	01.11.2021 12:40	8 ft	684381-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684381

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684381

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH10A**
Lab Sample Id: 684381-001

Matrix: Soil
Date Collected: 01.11.2021 12:40

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	96.3	50.3	mg/kg	01.12.2021 20:21		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 16:03

% Moisture:
Basis: Wet Weight

Seq Number: 3147632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.12.2021 20:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.12.2021 20:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.12.2021 20:34	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.12.2021 20:34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.12.2021 20:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.12.2021 20:34	
o-Terphenyl	84-15-1	98	%	70-135	01.12.2021 20:34	



Certificate of Analytical Results 684381

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH10A**
Lab Sample Id: 684381-001

Matrix: Soil
Date Collected: 01.11.2021 12:40

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.14.2021 11:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.14.2021 11:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.14.2021 11:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.14.2021 11:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.14.2021 11:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.14.2021 11:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.14.2021 11:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.14.2021 11:11	
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.14.2021 11:11	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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

WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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

Houston, TX (281) 240-4020 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
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-2811
Hobbs, NM (575-392-7550)

Work Order No: 087381

Page 1 of 1

www.xenico.com

Chain of Custody

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88320
Phone:	(432) 236-3849	Email:	Dan.Moir@wsp.com, Joe.Hernandez@wsp.com

Work Order Comments									
Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>									
State of Project:									
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>									
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="text"/>									

Project Name:	Ross Ranch (11/28/20) 6 Battery	Turn Around	ANALYSIS REQUEST							Work Order Notes
Project Number:	TE012920159	Routine <input checked="" type="checkbox"/>								
P.O. Number:		Rush:								
Sampler's Name:	Spencer Lo	Due Date:								

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1-4/-2 Thermometer ID					
Received Intact:	Yes No					
Cooler Custody Seals:	Yes (No) N/A Correction Factor: -0.2					
Sample Custody Seals:	Yes (No) N/A Total Containers: 1					

Number of Containers

A 8015)

PA 0=8021)

(EPA 300.0)

TAT starts the day received by the lab, if received by 4:30pm

[illegible][illegible]

Service: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xencio, its affiliates and subcontractors. It assigns standard terms and conditions to the service. Xencio 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 Xencio. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xencio, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>perls</i>	<i>Lee Clifton</i>	11-2-21 1330			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684381

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684383

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:25


Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	684383-001					
	Field Id:	CH11					
	Depth:	2- ft					
	Matrix:	SOIL					
	Sampled:	01.11.2021 13:40					
BTEX by EPA 8021B	Extracted:	01.13.2021 15:23					
	Analyzed:	01.14.2021 11:33					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00399 0.00399					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Chloride by EPA 300	Extracted:	01.12.2021 16:30					
	Analyzed:	01.12.2021 20:27					
	Units/RL:	mg/kg RL					
Chloride		17.1 10.1					
TPH by SW8015 Mod	Extracted:	01.12.2021 16:03					
	Analyzed:	01.12.2021 20:53					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9					
Diesel Range Organics (DRO)		<49.9 49.9					
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9					
Total GRO-DRO		<49.9 49.9					
Total TPH		<49.9 49.9					

BRL - Below Reporting Limit

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





Analytical Report 684383

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir****WSP USA**

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684383****Ross Ranch (11/28/20) 6 Battery**

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 Eurofins Xenco, LLC Report Number(s) 684383. 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 Eurofins Xenco, LLC. 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. 684383 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 Eurofins Xenco, LLC 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 684383

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH11	S	01.11.2021 13:40	2 ft	684383-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684383

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684383

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH11**
Lab Sample Id: 684383-001

Matrix: Soil
Date Collected: 01.11.2021 13:40

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.1	10.1	mg/kg	01.12.2021 20:27		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 16:03

% Moisture:
Basis: Wet Weight

Seq Number: 3147632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.12.2021 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.12.2021 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.12.2021 20:53	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.12.2021 20:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.12.2021 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.12.2021 20:53	
o-Terphenyl	84-15-1	116	%	70-135	01.12.2021 20:53	



Certificate of Analytical Results 684383

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH11**
Lab Sample Id: 684383-001

Matrix: Soil
Date Collected: 01.11.2021 13:40

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.14.2021 11:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.14.2021 11:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.14.2021 11:33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.14.2021 11:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.14.2021 11:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.14.2021 11:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.14.2021 11:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.14.2021 11:33	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.14.2021 11:33	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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

Chain of Custody

Work Order No. 1084282



Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Dan.Moir@wsp.com, Joe.Hernandez@wsp.com

Work Order Comments			
Program: UST/ST	<input type="checkbox"/> PRP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RRC <input type="checkbox"/> Superfund
State of Project:			
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RRP <input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/> ADAPT	Other:	

[illegible]

Total	200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metal(s) to be analyzed
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
			TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
			1631 / 245.1 / 7470 / 7471 · Hq

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11.2.21/338			
		2			
		4			
		6			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684383

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684385

WSP USA, Dallas, TX

Project Name: Ross Ranch 6 Battery

Project Id: TE012920159

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 01.12.2021 13:30

Report Date: 01.15.2021 09:32

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684385-001 Field Id: CH11 A Depth: 8- ft Matrix: SOIL Sampled: 01.11.2021 14:20					
BTEX by EPA 8021B	Extracted: 01.13.2021 15:23 Analyzed: 01.14.2021 11:56 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: 01.12.2021 16:30 Analyzed: 01.12.2021 20:33 Units/RL: mg/kg RL					
Chloride	146 49.9					
TPH by SW8015 Mod	Extracted: 01.12.2021 16:03 Analyzed: 01.12.2021 21:13 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.1 50.1					
Diesel Range Organics (DRO)	<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)	<50.1 50.1					
Total GRO-DRO	<50.1 50.1					
Total TPH	<50.1 50.1					

BRL - Below Reporting Limit

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





Analytical Report 684385

for

WSP USA

Project Manager: Dan Moir

Ross Ranch 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684385**

Ross Ranch 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684385. 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 Eurofins Xenco, LLC. 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. 684385 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684385

WSP USA, Dallas, TX

Ross Ranch 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH11 A	S	01.11.2021 14:20	8 ft	684385-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch 6 Battery

Project ID: *TE012920159*
Work Order Number(s): *684385*

Report Date: *01.15.2021*
Date Received: *01.12.2021*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684385

WSP USA, Dallas, TX

Ross Ranch 6 Battery

Sample Id: **CH11 A**
Lab Sample Id: 684385-001

Matrix: Soil
Date Collected: 01.11.2021 14:20

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	146	49.9	mg/kg	01.12.2021 20:33		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 16:03

% Moisture:
Basis: Wet Weight

Seq Number: 3147632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.12.2021 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.12.2021 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.12.2021 21:13	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.12.2021 21:13	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.12.2021 21:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.12.2021 21:13	
o-Terphenyl	84-15-1	108	%	70-135	01.12.2021 21:13	



Certificate of Analytical Results 684385

WSP USA, Dallas, TX

Ross Ranch 6 Battery

Sample Id: **CH11 A**
Lab Sample Id: 684385-001

Matrix: Soil
Date Collected: 01.11.2021 14:20

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.14.2021 11:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.14.2021 11:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.14.2021 11:56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.14.2021 11:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.14.2021 11:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.14.2021 11:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.14.2021 11:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	01.14.2021 11:56	
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.14.2021 11:56	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA
Ross Ranch 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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



WSP USA
Ross Ranch 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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



Chain of Custody

Work Order No: 1684385

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

www.xenco.com

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Dan.Moir@wsp.com, Joe.Hernandez@wsp.com

Program: UST/PT	<input type="checkbox"/> RRP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> TRC	<input type="checkbox"/> Superfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RRP	<input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/> ADAPT	Other:		

Project Name:	Ross Ranch (1/12/20) 6 Battery	Turn Around	
Project Number:	TE012920159	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Temperature (°C):	1.4/1.2	Thermometer ID	1-100-007
	Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.3
	Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:	3
	Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8015)	Chloride (EPA 8015)	ANALYSIS REQUEST										Work Order Notes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
CH11A	S	1/11/2021	1420	8'	1	X	X	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA		Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U												
		1631 / 245.1 / 7470 / 7471 : Hg																													

Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		1/12/21 1330			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684385

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.14.2021

Certificate of Analysis Summary 684386

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:31


Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	684386-001					
	Field Id:	CH12					
	Depth:	2- ft					
	Matrix:	SOIL					
	Sampled:	01.11.2021 14:28					
BTEX by EPA 8021B	Extracted:	01.13.2021 15:23					
	Analyzed:	01.14.2021 12:18					
	Units/RL:	mg/kg RL					
Benzene		<0.00201 0.00201					
Toluene		<0.00201 0.00201					
Ethylbenzene		<0.00201 0.00201					
m,p-Xylenes		<0.00402 0.00402					
o-Xylene		<0.00201 0.00201					
Total Xylenes		<0.00201 0.00201					
Total BTEX		<0.00201 0.00201					
Chloride by EPA 300	Extracted:	01.12.2021 16:30					
	Analyzed:	01.12.2021 20:39					
	Units/RL:	mg/kg RL					
Chloride		11.6 9.92					
TPH by SW8015 Mod	Extracted:	01.12.2021 16:03					
	Analyzed:	01.12.2021 21:33					
	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					

BRL - Below Reporting Limit

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





Analytical Report 684386

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir****WSP USA**

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684386****Ross Ranch (11/28/20) 6 Battery**

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 Eurofins Xenco, LLC Report Number(s) 684386. 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 Eurofins Xenco, LLC. 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. 684386 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 Eurofins Xenco, LLC 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 684386

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH12	S	01.11.2021 14:28	2 ft	684386-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159
Work Order Number(s): 684386

Report Date: 01.15.2021
Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684386

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH12**
Lab Sample Id: 684386-001

Matrix: Soil
Date Collected: 01.11.2021 14:28

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.6	9.92	mg/kg	01.12.2021 20:39		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 16:03

% Moisture:
Basis: Wet Weight

Seq Number: 3147632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.12.2021 21:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.12.2021 21:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.12.2021 21:33	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.12.2021 21:33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.12.2021 21:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	01.12.2021 21:33	
o-Terphenyl	84-15-1	112	%	70-135	01.12.2021 21:33	



Certificate of Analytical Results 684386

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH12**
Lab Sample Id: 684386-001

Matrix: Soil
Date Collected: 01.11.2021 14:28

Date Received: 01.12.2021 13:30
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.14.2021 12:18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.14.2021 12:18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.14.2021 12:18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.14.2021 12:18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.14.2021 12:18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.14.2021 12:18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.14.2021 12:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.14.2021 12:18	
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.14.2021 12:18	

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684386

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

Certificate of Analysis Summary 684388

WSP USA, Dallas, TX

Project Name: Ross Ranch (11/28/20) 6 Battery

Project Id: TE012920159

Date Received in Lab: Tue 01.12.2021 13:30

Contact: Dan Moir

Report Date: 01.15.2021 09:30

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 684388-001 Field Id: CH12 A Depth: 8- ft Matrix: SOIL Sampled: 01.11.2021 15:13					
BTEX by EPA 8021B	Extracted: 01.13.2021 15:23 Analyzed: 01.14.2021 12:41 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: 01.12.2021 16:30 Analyzed: 01.12.2021 20:45 Units/RL: mg/kg RL					
Chloride	83.5 49.8					
TPH by SW8015 Mod	Extracted: 01.12.2021 16:03 Analyzed: 01.12.2021 21:53 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0					
Diesel Range Organics (DRO)	<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0					
Total GRO-DRO	<50.0 50.0					
Total TPH	<50.0 50.0					

BRL - Below Reporting Limit

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





Analytical Report 684388

for

WSP USA

Project Manager: Dan Moir

Ross Ranch (11/28/20) 6 Battery

TE012920159

01.15.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.15.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **684388**

Ross Ranch (11/28/20) 6 Battery

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 Eurofins Xenco, LLC Report Number(s) 684388. 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 Eurofins Xenco, LLC. 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. 684388 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

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 684388

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CH12 A	S	01.11.2021 15:13	8 ft	684388-001



CASE NARRATIVE

Client Name: WSP USA

Project Name: Ross Ranch (11/28/20) 6 Battery

Project ID: TE012920159

Report Date: 01.15.2021

Work Order Number(s): 684388

Date Received: 01.12.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 684388

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH12 A**
Lab Sample Id: 684388-001

Matrix: Soil
Date Collected: 01.11.2021 15:13

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.12.2021 16:30

% Moisture:
Basis: Wet Weight

Seq Number: 3147631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.5	49.8	mg/kg	01.12.2021 20:45		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.12.2021 16:03

% Moisture:
Basis: Wet Weight

Seq Number: 3147632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.12.2021 21:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.12.2021 21:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.12.2021 21:53	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.12.2021 21:53	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.12.2021 21:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	01.12.2021 21:53	
o-Terphenyl	84-15-1	122	%	70-135	01.12.2021 21:53	



Certificate of Analytical Results 684388

WSP USA, Dallas, TX

Ross Ranch (11/28/20) 6 Battery

Sample Id: **CH12 A**
Lab Sample Id: 684388-001

Matrix: Soil
Date Collected: 01.11.2021 15:13

Date Received: 01.12.2021 13:30
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.13.2021 15:23

% Moisture:
Basis: Wet Weight

Seq Number: 3147860

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.14.2021 12:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.14.2021 12:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.14.2021 12:41	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.14.2021 12:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.14.2021 12:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.14.2021 12:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.14.2021 12:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.14.2021 12:41	
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.14.2021 12:41	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

MB Sample Id: 7719043-1-BLK

Matrix: Solid

LCS Sample Id: 7719043-1-BKS

Prep Method: E300P

Date Prep: 01.12.2021

LCSD Sample Id: 7719043-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	01.12.2021 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	315	199	525	106	527	106	90-110	0	20	mg/kg	01.12.2021 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3147631

Parent Sample Id: 684392-001

Matrix: Soil

MS Sample Id: 684392-001 S

Prep Method: E300P

Date Prep: 01.12.2021

MSD Sample Id: 684392-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	200	227	102	227	102	90-110	0	20	mg/kg	01.12.2021 20:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

MB Sample Id: 7719038-1-BLK

Matrix: Solid

LCS Sample Id: 7719038-1-BKS

Prep Method: SW8015P

Date Prep: 01.12.2021

LCSD Sample Id: 7719038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.12.2021 17:33	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1000	100	70-135	6	35	mg/kg	01.12.2021 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		93		108		70-135	%	01.12.2021 17:33
o-Terphenyl	85		107		93		70-135	%	01.12.2021 17:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Matrix: Solid

MB Sample Id: 7719038-1-BLK

Prep Method: SW8015P

Date Prep: 01.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.12.2021 17:13	

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

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

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

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



WSP USA

Ross Ranch (11/28/20) 6 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3147632

Parent Sample Id: 684140-001

Matrix: Soil

MS Sample Id: 684140-001 S

Prep Method: SW8015P

Date Prep: 01.12.2021

MSD Sample Id: 684140-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1190	118	1190	119	70-135	0	35	mg/kg	01.12.2021 18:34	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1050	105	70-135	5	35	mg/kg	01.12.2021 18:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	01.12.2021 18:34
o-Terphenyl	114		106		70-135	%	01.12.2021 18:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

MB Sample Id: 7719047-1-BLK

Matrix: Solid

LCS Sample Id: 7719047-1-BKS

Prep Method: SW5035A

Date Prep: 01.13.2021

LCSD Sample Id: 7719047-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0935	94	0.100	100	70-130	7	35	mg/kg	01.14.2021 06:51	
Toluene	<0.00200	0.100	0.0883	88	0.0913	91	70-130	3	35	mg/kg	01.14.2021 06:51	
Ethylbenzene	<0.00200	0.100	0.0914	91	0.0953	95	71-129	4	35	mg/kg	01.14.2021 06:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.191	96	70-135	5	35	mg/kg	01.14.2021 06:51	
o-Xylene	<0.00200	0.100	0.0936	94	0.0965	97	71-133	3	35	mg/kg	01.14.2021 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		101		70-130	%	01.14.2021 06:51
4-Bromofluorobenzene	111		110		113		70-130	%	01.14.2021 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147860

Parent Sample Id: 684371-001

Matrix: Soil

MS Sample Id: 684371-001 S

Prep Method: SW5035A

Date Prep: 01.13.2021

MSD Sample Id: 684371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.0954	94	70-130	2	35	mg/kg	01.14.2021 07:36	
Toluene	<0.00200	0.100	0.0923	92	0.0879	87	70-130	5	35	mg/kg	01.14.2021 07:36	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0891	88	71-129	6	35	mg/kg	01.14.2021 07:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.181	90	70-135	7	35	mg/kg	01.14.2021 07:36	
o-Xylene	<0.00200	0.100	0.0973	97	0.0913	90	71-133	6	35	mg/kg	01.14.2021 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	01.14.2021 07:36
4-Bromofluorobenzene	108		106		70-130	%	01.14.2021 07:36

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

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

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

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

Work Order No:

1084388

www.xenco.com

Page 1 of 1

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting: Level II	<input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="text"/>

SAMPLE RECEIPT				Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	141.2					Thermometer ID			
Received Intact:	Yes			No		7-PM-002			
Cooler Custody Seals:	Yes			No		Correction Factor:		-0.2	
Sample Custody Seals:	Yes			No		Total Containers:		1	

Number of Containers

(EPA 8015)

(EPA 0=8021)



(EPA 300.0)

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Circle Method(s) and Metal(s) to be analyzed	8RCRA TCLP / SPLP	6010: 6010:	8RCRA Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U																
Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn

the signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		1-12-21 1330			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.12.2021 01.30.00 PM

Work Order #: 684388

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist**Comments**

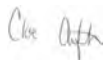
#1 *Temperature of cooler(s)?	1.2	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	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 delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.12.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.13.2021

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 29628

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 29628
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. The variance request for the confirmation samples every 500 ft2 is approved. All contaminated soil must be reclaimed/remediated and removed down to 4 feet below surface or until it meets strictest closure criteria. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 standards of 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg (GRO+DRO) and chlorides to 20,000 mg/kg. If equipment/high pressure pipelines hinder excavation, use a hydrovac to "safely" remove contaminated soil.	9/8/2021