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	NRM2012953444
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 32.093951 Longitude -103.835981
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU PB 25-25-30 USA 001 Battery	Site Type Tank Battery
Date Release Discovered 4-25-2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
N	25	25S	30E	Eddy

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

Nature and Volume of Release

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

☑ Crude Oil	Volume Released (bbls) 52 bbls	Volume Recovered (bbls) 52 bbls
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release	52 bbl produced oil was spilled into impermeable containment, all of which was recovered and put into an isolated oil tank. Oil line was shut in and repaired. The liner was visually inspected and determined to be inadequate. Liner is scheduled for repair and will be returned to impervious condition. Delineation under the liner will be completed by a third party contractor.	

State of New Mexico
Oil Conservation Division

Incident ID	NRM2012953444
District RP	
Facility ID	
Application ID	

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

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 Mike Bratcher; Rob Hamlet; Victoria Venegas; 'Griswold, Jim, EMNRD'; Morgan, Crisha A; blm_nm_cfo_spill@blm.gov on Sunday, April 26, 2020 12:20 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

☑ The source of the release has been stopped.

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

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

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

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

N/A

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: [signature] Date: 5-8-20

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

OCD Only

Received by: Ramona Marcus Date: 5/8/2020

Location:	**PLU PB 25-25-30 USA 001 Battery**	
Spill Date:	**4/25/2020**	
Area 1		
Approximate Area =	291.92	cu. ft.
VOLUME OF LEAK		
Total Crude Oil =	52.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**52.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**52.00**	**bbls**

Incident ID	NRM2012953444
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2012953444
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 5/13/2021

email: Kyle_Littrell@exxonmobil.com Telephone:

OCD Only

Received by: Date:

Incident ID	NRM2012953444
District RP	
Facility ID	
Application ID	

Remediation Plan

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

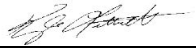
- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note 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: 5/13/2021

email: Kyle_Littrell@exxonmobil.com Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2012953444
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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- ☐ Estimated volume of material to be remediated
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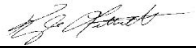
Printed Name: Kyle Littrell Title: Environmental Manager

Signature:  Date: 5/13/2021

email: Kyle_Littrell@exxonmobil.com Telephone:

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 13, 2021

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

RE: Deferral Request Addendum
PLU PB 25-25-30 USA 001 Battery
Incident Number NRM2012953444
Eddy County, New Mexico

To Whom it May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following addendum to a Deferral Request submitted September 24, 2020. This Addendum provides an update to the delineation activities completed at the PLU PB 25-25-30 USA 001 Battery (Site), located in Unit N, Section 25, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1), in response to the denial of the Deferral Request by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD expressed concern that the release was not completely delineated horizontally or vertically. Based on the additional delineation activities described below, XTO is submitting this Deferral Request Addendum, requesting deferral of final remediation for Incident Number NRM2012953444 until the Site is reconstructed, and/or the well pad is abandoned.

BACKGROUND

On September 24, 2020, WSP submitted a Deferral Request to the NMOCD for the April 25, 2020 oil line release of 52 barrels (bbls) of crude oil into the lined containment at the Site. A vacuum truck was dispatched to the Site to recover freestanding fluid; approximately 52 bbls of crude oil were recovered from within the lined containment. The liner was inspected and determined to be compromised. XTO reported the release to NMOCD immediately via email on April 26, 2020 and submitted a Release Notification and Corrective Action Form C-141 (Form C-141) on May 8, 2020. The release was assigned Incident Number NRM2012953444.

The Deferral Request detailed site characterization 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). Based on the site characterization, the following Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg

- TPH: 100 mg/kg
- Chloride: 600 mg/kg

Deferral was requested due to chloride and/or TPH-impacted soil left in place beneath the lined containment. Delineation samples were collected from boreholes BH01 through BH03 at a depth of 1-foot bgs from beneath the lined containment. Refusal via hand auger was encountered in the boreholes at a hard, indurated caliche at 1-foot bgs. Due to safety restrictions and access issues, use of heavy equipment or drill rig was not possible inside the containment. Alternatively, borehole/pothole BH04/PH01 was advanced to a depth of 4 feet bgs directly adjacent to the south side of the containment to confirm the vertical extent of the release. An estimated 368 cubic yards of impacted soil remains in-place. The impacted soil is limited to the area immediately beneath the lined containment where remediation would require a major facility deconstruction.

On March 3, 2021, NMOCD denied the Deferral Request for Incident Number NRM2012953444 for the following reason:

- *Before we can approve a deferral the spill must be fully delineated. Continue to horizontally delineate sample points to 600 mg/kg for chlorides and TPH to 100 mg/kg on the outer edges/periphery of the release area. PH01A serves to delineate the spill on the south side of the release area. The OCD needs vertical delineation underneath the liner where the release actually took place. Please find a safe expectable area to vertically delineate the release inside the boundary of the battery.*

ADDITIONAL DELINEATION ACTIVITIES

On March 30, 2021, WSP personnel returned to the Site to conduct additional delineation activities in response to the reason for denial. WSP utilized a Shaw Tool, Ltd Portable Core Drill to delineate the vertical extent of impacted soil beneath the liner. Due to the location of the release, a Hot Work Permit was necessary to conduct investigative motor or electric powered drilling methods within 35 feet of any hydrocarbon sources. In coordination with XTO, an XTO safety representative was retained to conduct air monitoring as part of the permit process for investigative core drilling activities.

One core hole (CH01) was advanced within the lined containment to delineate the vertical extent of impacted soil. The original locations of boreholes BH01 through BH03 were not accessible by the core drill due to proximity to active production equipment. Three additional core holes (CH02 through CH04) were advanced on the north, east, and west sides of the lined containment to confirm lateral delineation. Core holes CH01 through CH04 were advanced to a depth of 4 feet bgs. Two delineation soil samples were collected from each core hole at depths of 1 foot and 4 feet bgs. Soil from the core holes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the core holes were logged on

lithologic/soil sampling logs, which are included in Attachment 1. The delineation soil sample locations are depicted on Figure 2. Following delineation activities, the tear in the liner was bonded and repaired by XTO to restore the integrity of the liner.

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 Xenco Laboratories (Eurofins Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for the delineation soil samples collected from core holes CH01 through CH04 indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. The soil sample analytical results are summarized in Table 1 and laboratory analytical reports are included in Attachment 2.

DEFERRAL REQUEST

TPH and chloride impacts to soil were identified beneath the liner at 1-foot bgs in boreholes BH01 through BH03. Additional delineation was completed within and around the lined containment to delineate the lateral and vertical extent of impacted soil remaining in place. Based on the laboratory analytical results for the delineation soil samples, the impacted soil remaining in place beneath the liner is delineated vertically by delineation soil samples CH01/CH01A and laterally by delineation soil samples CH02/CH02A through CH04/CH04A and BH04/PH01/PH01A. A maximum of 368 cubic yards of impacted soil remain in place beneath the liner.

WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was determined to be greater than 100 feet bgs and the lined containment will restrict potential vertical migration of residual impacts. Based on the additional delineation samples as presented in this addendum which provide full vertical and lateral delineation of the release, XTO respectfully requests deferral of final remediation for Incident Number NRM2012953444 until final reclamation of the well pad or major construction, whichever comes first.

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

Sincerely,

WSP USA, INC.

Elizabeth Naka
Assistant Consultant

Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Attachment 1	Lithologic / Soil Sample Log
Attachment 2	Laboratory Analytical Results

FIGURES

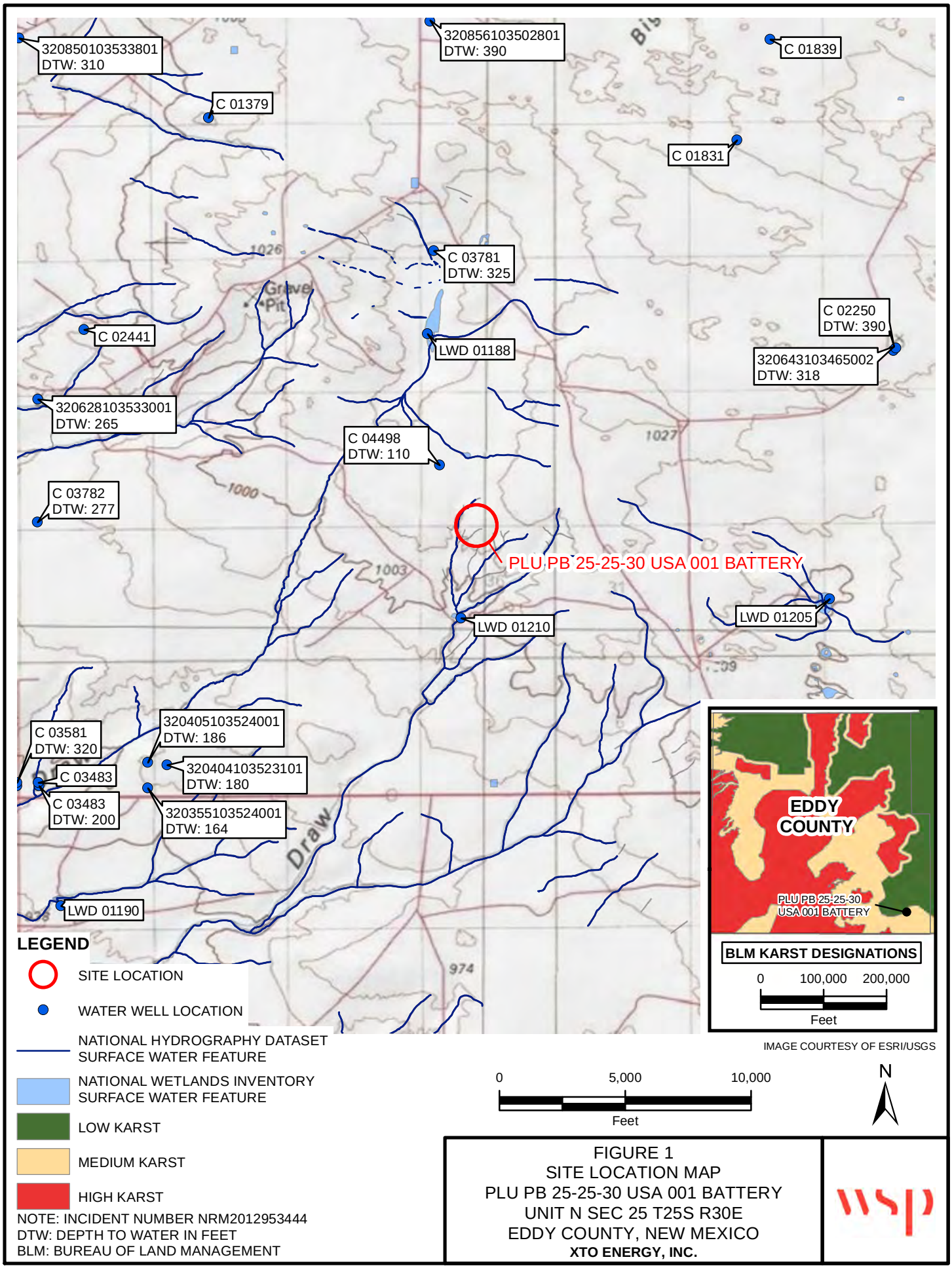
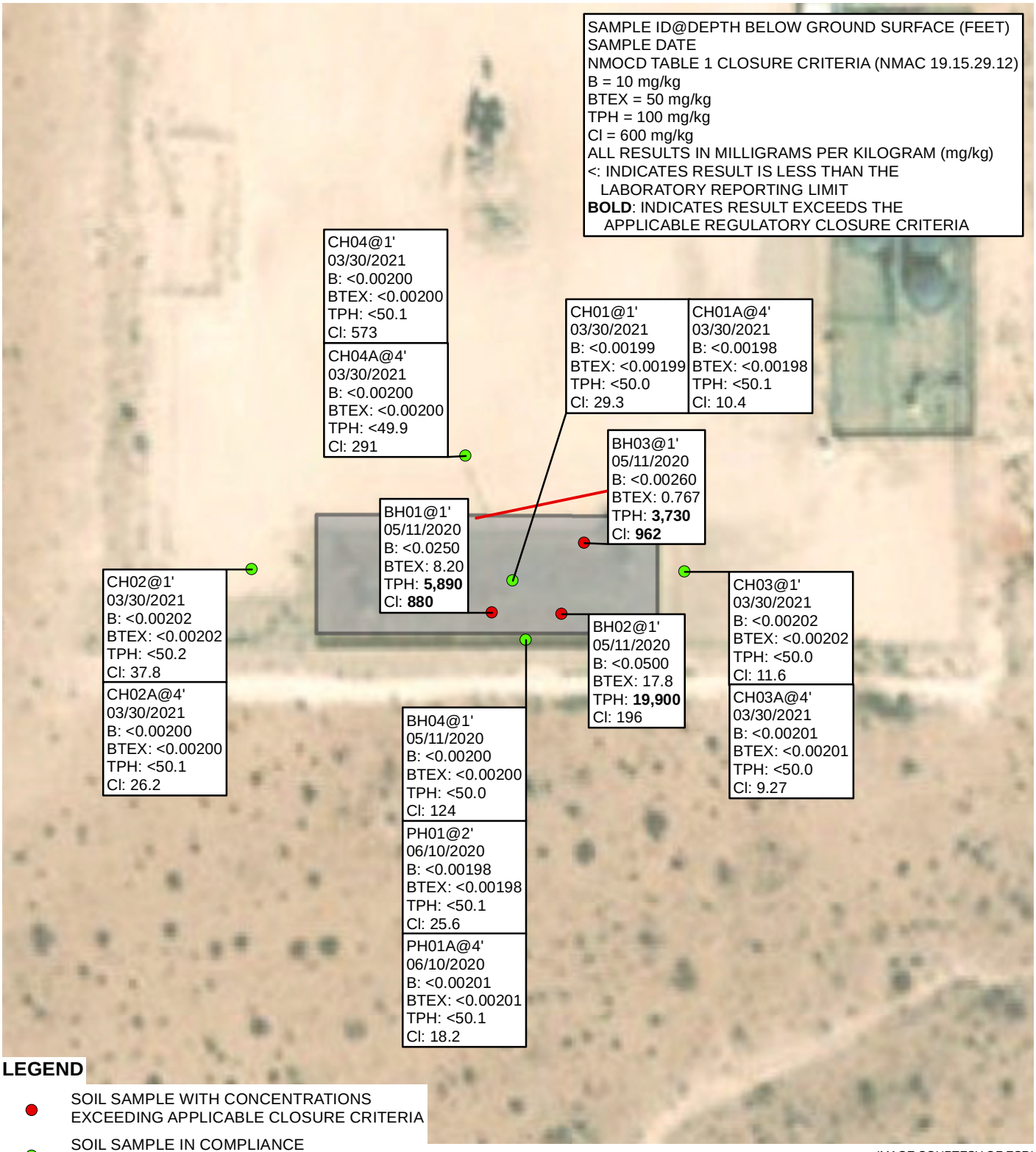


FIGURE 1
SITE LOCATION MAP
PLU PB 25-25-30 USA 001 BATTERY
UNIT N SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920072_PHANTOM BANKS 25-25-30 USA BATTERY\012920072_FIG01_SL_RECEPTOR_2020.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: INCIDENT NUMBER NRM2012953444

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
PLU PB 25-25-30 USA 001 BATTERY
UNIT N SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920072_PHANTOM BANKS 25-25-30 USA BATTERY\012920072_FIG02_DELINEATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
PLU PB 25-25-30 USA 001 Battery
Incident Number NRM2012953444
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	NE	100	600
Delineation Samples										
BH01	05/11/2020	1	<0.0250	8.20	841	4,680	371	5,520	**5,890**	**880**
BH02	05/11/2020	1	<0.0500	17.8	2,990	15,800	1,070	18,800	**19,900**	196
BH03	05/11/2020	1	<0.00260	0.767	254	3,200	271	3,450	**3,730**	**962**
BH04	05/11/2020	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	124
PH01	06/10/2020	2	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	25.6
PH01A	06/10/2020	4	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	18.2
CH01	03/30/2021	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	29.3
CH01 A	03/30/2021	4	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	10.4
CH02	03/30/2021	1	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	37.8
CH02A	03/30/2021	4	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	26.2
CH03	03/30/2021	1	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	11.6
CH03A	03/30/2021	4	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	9.27
CH04	03/30/2021	1	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	573
CH04A	03/30/2021	4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	291

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 - motor 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

ATTACHMENT 1: LITHOLOGIC/SAMPLING LOG

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH01	6/10/2020

Site Name: PLU Phantom Banks 25-25-30

RP or Incident Number: NRM2012953444

LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL	Method: Backhoe

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE gravel w/ sand, tan-brown, dry, 1-2" gravel, well graded, no stain, no odor
dry	<186	70.7	n		1	1		
dry	<186	14.5	n	PH01		2		
dry	<186	5.2	n			3		
dry	<186	4.6	n	PH01A		4		

Total Depth: 4 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
BH01	5/11/2020

Site Name: PLU Phantom Banks 25-25-30

RP or Incident Number: NRM2012953444

LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 4.25"	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE gravel w/ sand, tan-brown, dry, 1-2" gravel, well graded, no stain, no odor
dry	1,043	944	n	BH01	1	1		Auger refusal
								Total Depth: 1 foot bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
BH02	5/11/2020

Site Name: PLU Phantom Banks 25-25-30

RP or Incident Number: NRM2012953444

LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 4.25"	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE gravel w/ sand, tan-brown, dry, 1-2" gravel, well graded, no stain, no odor
dry	262	1119	n	BH02	1	1		Auger refusal
								Total Depth: 1 foot bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
BH03	5/11/2020

Site Name: PLU Phantom Banks 25-25-30

RP or Incident Number: NRM2012953444

LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 4.25"	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE gravel w/ sand, tan-brown, dry, 1-2" gravel, well graded, no stain, no odor
dry	262	327.4	n	BH03	1	1		Auger refusal
								Total Depth: 1 foot bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
BH04	5/11/2020

Site Name: PLU Phantom Banks 25-25-30

RP or Incident Number: NRM2012953444

LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 4.25"	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE gravel w/ sand, tan-brown, dry, 1-2" gravel, well graded, no stain, no odor
dry	<186	2.3	n	BH04	1	1		Auger refusal
								Total Depth: 1 foot bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
CH01	3/30/2021

Site Name: PLU PB 25-25-30

RP or Incident Number:

LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method: Wet Core Drill

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.093941,-103.835973	Chloride, PID	1.5'	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, light brown-tan, poorly consolidated, some small gravel, some oder, trace stain, fill
						0.5	SW-S	SANDSTONE w/caliche gravel, wet, brown-light brown, well consolidated, medium-coarse grain, well graded, some tan caliche gravel, few small chert gravel, no stain, no odor
wet	<168	1.0	n	CH01	1	1		
wet	<168	2.1	n			2		
						3		
wet	<168	2.1	m	CH01A	4	4		
								Total Depth: 4 feet bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
CH02	3/30/2021

Site Name: PLU PB 25-25-30
RP or Incident Number: NRM2012453444
LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method: Wet Core Drill

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.093941,-103.835973	Chloride, PID	1.5'	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, light brown-tan, poorly consolidated, some small gravel, some oder, trace stain, fill
wet	<168	0.3	n	CH02	1	1	SW-S	SANDSTONE w/caliche gravel, wet, brown-light brown, well consolidated, medium-coarse grain, well graded, some tan caliche gravel, few small chert gravel, no stain, no odor
wet	<168	0.0	n			2		
						3		
wet	<168	0.0	n	CH02A	4	4		
								Total Depth: 4 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
CH03	3/30/2021

Site Name: PLU PB 25-25-30

RP or Incident Number: NRM2012453444

LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
TC/BB	Wet Core Drill

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.093941,-103.835973	Chloride, PID	1.5'	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, light brown-tan, poorly consolidated, some small gravel, some oder, trace stain, fill
wet	<168	0.3	n	CH03	1	1	SW-S	SANDSTONE w/caliche gravel, wet, brown-light brown, well consolidated, medium-coarse grain, well graded, some tan caliche gravel, few small chert gravel, no stain, no odor
wet	257.6	0.1	n			2		
						3		
wet	<168	0.0	n	CH03A	4	4		
								Total Depth: 4 feet bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
CH04	3/30/2021

Site Name: PLU PB 25-25-30
RP or Incident Number: NRM2012453444
LTE Job Number: TE012920072

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: TC/BB	Method: Wet Core Drill

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.093941,-103.835973	Chloride, PID	1.5'	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, light brown-tan, poorly consolidated, some small gravel, some oder, trace stain, fill
wet	520	0.2	n	CH04	1	1	SW-S	SANDSTONE w/caliche gravel, wet, brown-light brown, well consolidated, medium-coarse grain, well graded, some tan caliche gravel, few small chert gravel, no stain, no odor
wet	364.0	0.1	n			2		
						3		
wet	229	0.1	n	CH04A	4	4		
								Total Depth: 4 feet bgs

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-462-1
Laboratory Sample Delivery Group: TE012920072
Client Project/Site: Phantom Banks 25-25-30

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
4/12/2021 5:45:58 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Laboratory Job ID: 890-462-1
SDG: TE012920072

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-462-1
Project/Site: Phantom Banks 25-25-30 SDG: TE012920072

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Job ID: 890-462-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-462-1

Receipt
The samples were received on 3/31/2021 1:21 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: CH01 (890-462-1) and CH01 A (890-462-2).

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Client Sample ID: CH01

Lab Sample ID: 890-462-1
Matrix: Solid
Date Collected: 03/30/21 10:34
Date Received: 03/31/21 13:21
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/06/21 16:49	04/07/21 05:22	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/06/21 16:49	04/07/21 05:22	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/06/21 16:49	04/07/21 05:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/06/21 16:49	04/07/21 05:22	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/06/21 16:49	04/07/21 05:22	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/06/21 16:49	04/07/21 05:22	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/06/21 16:49	04/07/21 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*04/06/21 16:49*	*04/07/21 05:22*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*04/06/21 16:49*	*04/07/21 05:22*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	50.0		mg/Kg		04/02/21 09:33	04/02/21 20:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/02/21 09:33	04/02/21 20:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/02/21 09:33	04/02/21 20:48	1
Total TPH	<50.0	U	50.0		mg/Kg		04/02/21 09:33	04/02/21 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*04/02/21 09:33*	*04/02/21 20:48*	*1*
o-Terphenyl	*121*		*70 - 130*	*04/02/21 09:33*	*04/02/21 20:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.3**		4.95		mg/Kg			04/11/21 20:52	1

Client Sample ID: CH01 A

Lab Sample ID: 890-462-2
Matrix: Solid
Date Collected: 03/30/21 10:49
Date Received: 03/31/21 13:21
Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/06/21 16:49	04/07/21 05:42	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/06/21 16:49	04/07/21 05:42	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/06/21 16:49	04/07/21 05:42	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/06/21 16:49	04/07/21 05:42	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/06/21 16:49	04/07/21 05:42	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/06/21 16:49	04/07/21 05:42	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/06/21 16:49	04/07/21 05:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*04/06/21 16:49*	*04/07/21 05:42*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*04/06/21 16:49*	*04/07/21 05:42*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Client Sample ID: CH01 A

Date Collected: 03/30/21 10:49
Date Received: 03/31/21 13:21
Sample Depth: - 4

Lab Sample ID: 890-462-2

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U *+	50.1		mg/Kg		04/02/21 09:33	04/02/21 21:10	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/02/21 09:33	04/02/21 21:10	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/02/21 09:33	04/02/21 21:10	1
Total TPH	<50.1	U	50.1		mg/Kg		04/02/21 09:33	04/02/21 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*04/02/21 09:33*	*04/02/21 21:10*	*1*
o-Terphenyl	*136*	*S1+*	*70 - 130*	*04/02/21 09:33*	*04/02/21 21:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.4**		5.00		mg/Kg			04/11/21 20:58	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-462-1	CH01	127	106										
890-462-2	CH01 A	112	94										
LCS 880-1404/1-A	Lab Control Sample	104	105										
LCSD 880-1404/2-A	Lab Control Sample Dup	105	106										
MB 880-1404/5-A	Method Blank	105	97										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-462-1	CH01	113	121										
890-462-2	CH01 A	131 S1+	136 S1+										
LCS 880-1228/2-A	Lab Control Sample	116	114										
LCSD 880-1228/3-A	Lab Control Sample Dup	117	114										
MB 880-1228/1-A	Method Blank	109	119										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1404/5-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1404

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*

Lab Sample ID: LCS 880-1404/1-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1045		mg/Kg		105	70 - 130		
Toluene			0.100	0.09651		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1000		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.1967		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1008		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-1404/2-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	0	35
Toluene			0.100	0.09625		mg/Kg		96	70 - 130	0	35
Ethylbenzene			0.100	0.09959		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1955		mg/Kg		98	70 - 130	1	35
o-Xylene			0.100	0.09893		mg/Kg		99	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-1228/1-A
Matrix: Solid
Analysis Batch: 1237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1228

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/02/21 09:33	04/02/21 12:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/02/21 09:33	04/02/21 12:15	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/02/21 09:33	04/02/21 12:15	1
Total TPH	<50.0	U	50.0		mg/Kg		04/02/21 09:33	04/02/21 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*04/02/21 09:33*	*04/02/21 12:15*	*1*
o-Terphenyl	*119*		*70 - 130*	*04/02/21 09:33*	*04/02/21 12:15*	*1*

Lab Sample ID: LCS 880-1228/2-A
Matrix: Solid
Analysis Batch: 1237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1228

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1363	*+	mg/Kg		136	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1084		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*116*		*70 - 130*
o-Terphenyl	*114*		*70 - 130*

Lab Sample ID: LCSD 880-1228/3-A
Matrix: Solid
Analysis Batch: 1237

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1228

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1217		mg/Kg		122	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	1150		mg/Kg		115	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*114*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1542/1-A
Matrix: Solid
Analysis Batch: 1625

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/11/21 17:55	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-462-1
Project/Site: Phantom Banks 25-25-30 SDG: TE012920072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1542/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 1625

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	254.2		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-1542/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 1625

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	245.1		mg/Kg		98	90 - 110	4	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

GC VOA

Analysis Batch: 1370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-462-1	CH01	Total/NA	Solid	8021B	1404
890-462-2	CH01 A	Total/NA	Solid	8021B	1404
MB 880-1404/5-A	Method Blank	Total/NA	Solid	8021B	1404
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	8021B	1404
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1404

Prep Batch: 1404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-462-1	CH01	Total/NA	Solid	5035	
890-462-2	CH01 A	Total/NA	Solid	5035	
MB 880-1404/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 1228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-462-1	CH01	Total/NA	Solid	8015NM Prep	
890-462-2	CH01 A	Total/NA	Solid	8015NM Prep	
MB 880-1228/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1228/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1228/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-462-1	CH01	Total/NA	Solid	8015B NM	1228
890-462-2	CH01 A	Total/NA	Solid	8015B NM	1228
MB 880-1228/1-A	Method Blank	Total/NA	Solid	8015B NM	1228
LCS 880-1228/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1228
LCSD 880-1228/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1228

HPLC/IC

Leach Batch: 1542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-462-1	CH01	Soluble	Solid	DI Leach	
890-462-2	CH01 A	Soluble	Solid	DI Leach	
MB 880-1542/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1542/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1542/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-462-1	CH01	Soluble	Solid	300.0	1542
890-462-2	CH01 A	Soluble	Solid	300.0	1542
MB 880-1542/1-A	Method Blank	Soluble	Solid	300.0	1542
LCS 880-1542/2-A	Lab Control Sample	Soluble	Solid	300.0	1542
LCSD 880-1542/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1542

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-462-1
Project/Site: Phantom Banks 25-25-30 SDG: TE012920072

Client Sample ID: CH01 Lab Sample ID: 890-462-1

Date Collected: 03/30/21 10:34 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 05:22	AJ	XM
Total/NA	Prep	8015NM Prep			1228	04/02/21 09:33	DM	XM
Total/NA	Analysis	8015B NM		1	1237	04/02/21 20:48	AJ	XM
Soluble	Leach	DI Leach			1542	04/08/21 15:27	SC	XM
Soluble	Analysis	300.0		1	1625	04/11/21 20:52	CH	XM

Client Sample ID: CH01 A Lab Sample ID: 890-462-2

Date Collected: 03/30/21 10:49 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 05:42	AJ	XM
Total/NA	Prep	8015NM Prep			1228	04/02/21 09:33	DM	XM
Total/NA	Analysis	8015B NM		1	1237	04/02/21 21:10	AJ	XM
Soluble	Leach	DI Leach			1542	04/08/21 15:27	SC	XM
Soluble	Analysis	300.0		1	1625	04/11/21 20:58	CH	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-462-1
Project/Site: Phantom Banks 25-25-30 SDG: TE012920072

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Phantom Banks 25-25-30

Job ID: 890-462-1
SDG: TE012920072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-462-1	CH01	Solid	03/30/21 10:34	03/31/21 13:21	- 1
890-462-2	CH01 A	Solid	03/30/21 10:49	03/31/21 13:21	- 4

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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4/12/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA 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:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project: NM
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Phantom Banks 25-25-30	Turn Around	
Project Number:	TE012920072	Routine	X
P.O. Number:	NRM2012953444	Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0 / 0.8	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
CH01	S	3/30/21	1034	1'	1	X	X	X
CH01A	S	3/30/21	1049	4'	1	X	X	X

890-462 Chain of Custody

Work Order Notes

LC#: 1140221001
API#: 30-015-40756

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Gabby Ordonez	3/31/21 13:21	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-462-1
SDG Number: TE012920072

Login Number: 462
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-462-1
SDG Number: TE012920072

Login Number: 462
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/01/21 11:44 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-463-1
Laboratory Sample Delivery Group: TE012920072
Client Project/Site: Phantom Bank 25-25-30

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
4/9/2021 4:40:50 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Laboratory Job ID: 890-463-1
SDG: TE012920072

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-463-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Job ID: 890-463-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-463-1

Receipt
The samples were received on 3/31/2021 1:21 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: CH02 (890-463-1) and CH02A (890-463-2).

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Client Sample ID: CH02

Lab Sample ID: 890-463-1
Matrix: Solid
Date Collected: 03/30/21 15:20
Date Received: 03/31/21 13:21
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:03	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:03	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:03	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/06/21 16:49	04/07/21 06:03	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:03	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/06/21 16:49	04/07/21 06:03	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/06/21 16:49*	*04/07/21 06:03*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*04/06/21 16:49*	*04/07/21 06:03*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		04/03/21 13:41	04/05/21 06:04	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		04/03/21 13:41	04/05/21 06:04	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		04/03/21 13:41	04/05/21 06:04	1
Total TPH	<50.2	U	50.2		mg/Kg		04/03/21 13:41	04/05/21 06:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*04/03/21 13:41*	*04/05/21 06:04*	*1*
o-Terphenyl	*128*		*70 - 130*	*04/03/21 13:41*	*04/05/21 06:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.8**		4.97		mg/Kg			04/08/21 20:45	1

Client Sample ID: CH02A

Lab Sample ID: 890-463-2
Matrix: Solid
Date Collected: 03/30/21 15:40
Date Received: 03/31/21 13:21
Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 06:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 06:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 06:23	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/06/21 16:49	04/07/21 06:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 06:23	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/06/21 16:49	04/07/21 06:23	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 06:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*04/06/21 16:49*	*04/07/21 06:23*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/06/21 16:49*	*04/07/21 06:23*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Client Sample ID: CH02A
Date Collected: 03/30/21 15:40
Date Received: 03/31/21 13:21
Sample Depth: - 4

Lab Sample ID: 890-463-2
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 06:26	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 06:26	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 06:26	1
Total TPH	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 06:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/03/21 13:41*	*04/05/21 06:26*	*1*
o-Terphenyl	*120*		*70 - 130*	*04/03/21 13:41*	*04/05/21 06:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.2**		4.97		mg/Kg			04/08/21 21:00	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-463-1	CH02	116	108										
890-463-2	CH02A	119	98										
LCS 880-1404/1-A	Lab Control Sample	104	105										
LCSD 880-1404/2-A	Lab Control Sample Dup	105	106										
MB 880-1404/5-A	Method Blank	105	97										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-463-1	CH02	117	128										
890-463-2	CH02A	111	120										
LCS 880-1283/2-A	Lab Control Sample	121	116										
LCSD 880-1283/3-A	Lab Control Sample Dup	117	113										
MB 880-1283/1-A	Method Blank	100	104										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1404/5-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1404

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*

Lab Sample ID: LCS 880-1404/1-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1045		mg/Kg		105	70 - 130		
Toluene			0.100	0.09651		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1000		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.1967		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1008		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-1404/2-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	0	35
Toluene			0.100	0.09625		mg/Kg		96	70 - 130	0	35
Ethylbenzene			0.100	0.09959		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1955		mg/Kg		98	70 - 130	1	35
o-Xylene			0.100	0.09893		mg/Kg		99	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-1283/1-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1283

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*04/03/21 13:41*	*04/04/21 22:41*	*1*
o-Terphenyl	*104*		*70 - 130*	*04/03/21 13:41*	*04/04/21 22:41*	*1*

Lab Sample ID: LCS 880-1283/2-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1283

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1072		mg/Kg		107	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: LCSD 880-1283/3-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1283

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1076		mg/Kg		108	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	976.6		mg/Kg		98	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1412/1-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/08/21 19:02	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1412/2-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	265.5		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-1412/3-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	265.3		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-463-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

GC VOA

Analysis Batch: 1370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-463-1	CH02	Total/NA	Solid	8021B	1404
890-463-2	CH02A	Total/NA	Solid	8021B	1404
MB 880-1404/5-A	Method Blank	Total/NA	Solid	8021B	1404
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	8021B	1404
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1404

Prep Batch: 1404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-463-1	CH02	Total/NA	Solid	5035	
890-463-2	CH02A	Total/NA	Solid	5035	
MB 880-1404/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 1283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-463-1	CH02	Total/NA	Solid	8015NM Prep	
890-463-2	CH02A	Total/NA	Solid	8015NM Prep	
MB 880-1283/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1283/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-463-1	CH02	Total/NA	Solid	8015B NM	1283
890-463-2	CH02A	Total/NA	Solid	8015B NM	1283
MB 880-1283/1-A	Method Blank	Total/NA	Solid	8015B NM	1283
LCS 880-1283/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1283
LCSD 880-1283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1283

HPLC/IC

Leach Batch: 1412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-463-1	CH02	Soluble	Solid	DI Leach	
890-463-2	CH02A	Soluble	Solid	DI Leach	
MB 880-1412/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-463-1	CH02	Soluble	Solid	300.0	1412
890-463-2	CH02A	Soluble	Solid	300.0	1412
MB 880-1412/1-A	Method Blank	Soluble	Solid	300.0	1412
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	300.0	1412
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1412

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-463-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Client Sample ID: CH02 Lab Sample ID: 890-463-1

Date Collected: 03/30/21 15:20 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 06:03	AJ	XM
Total/NA	Prep	8015NM Prep			1283	04/03/21 13:41	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/05/21 06:04	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 20:45	CH	XM

Client Sample ID: CH02A Lab Sample ID: 890-463-2

Date Collected: 03/30/21 15:40 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 06:23	AJ	XM
Total/NA	Prep	8015NM Prep			1283	04/03/21 13:41	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/05/21 06:26	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 21:00	CH	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-463-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-463-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-463-1
SDG: TE012920072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-463-1	CH02	Solid	03/30/21 15:20	03/31/21 13:21	- 1
890-463-2	CH02A	Solid	03/30/21 15:40	03/31/21 13:21	- 4

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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4/9/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA 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:		travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project: NM
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Watson Banks 25-25-30	Turn Around	
Project Number:	TE01292007Z	Routine	X
P.O. Number:	NRM2012953444	Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0 | 0.8	Thermometer ID	
Received Intact:	(Yes) No	T_NM_007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
CH02	S	3/30/21	1520	1'	1	X	X	X
CH02A	S	3/30/21	1540	4'	1	X	X	X

890-463 Chain of Custody

Work Order Notes

CC#: 114022001

API: 30-015-40756

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Page 16 of 19

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Gabby Ordonez	3/31/21 13:21	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-142 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-463-1
Address: 1211 W Florida Ave	Due Date Requested: 4/6/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Phantom Bank 25-25-30	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
			Preservation Code:								
CH02 (890-463-1)	3/30/21	15 20 Mountain		Solid			X	X	X	1	
CH02A (890-463-2)	3/30/21	15 40 Mountain		Solid			X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Clue Cuyler 3-31-21				4-1-21 11:30am	
2						
3						

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
Δ Yes Δ No		

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-463-1
SDG Number: TE012920072

Login Number: 463
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-463-1
SDG Number: TE012920072

Login Number: 463
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/01/21 11:43 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-464-1
Laboratory Sample Delivery Group: TE012920072
Client Project/Site: Phantom Bank 25-25-30

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
4/9/2021 4:42:48 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Laboratory Job ID: 890-464-1
SDG: TE012920072

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-464-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Job ID: 890-464-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-464-1

Comments
No additional comments.

Receipt
The samples were received on 3/31/2021 1:21 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8º C.

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-1366 and analytical batch 880-1370 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: instrument injection error on CCV

(CCV 880-1370/2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Client Sample ID: CH03

Date Collected: 03/30/21 11:50
Date Received: 03/31/21 13:21

Lab Sample ID: 890-464-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:44	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:44	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:44	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/06/21 16:49	04/07/21 06:44	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:44	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/06/21 16:49	04/07/21 06:44	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/06/21 16:49	04/07/21 06:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*04/06/21 16:49*	*04/07/21 06:44*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*04/06/21 16:49*	*04/07/21 06:44*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 06:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 06:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 06:47	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 06:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*04/03/21 13:41*	*04/05/21 06:47*	*1*
o-Terphenyl	*118*		*70 - 130*	*04/03/21 13:41*	*04/05/21 06:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.6**		4.97		mg/Kg			04/08/21 21:05	1

Client Sample ID: CH03A

Date Collected: 03/30/21 12:10
Date Received: 03/31/21 13:21

Lab Sample ID: 890-464-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/06/21 16:49	04/07/21 07:04	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/06/21 16:49	04/07/21 07:04	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/06/21 16:49	04/07/21 07:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/06/21 16:49	04/07/21 07:04	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/06/21 16:49	04/07/21 07:04	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/06/21 16:49	04/07/21 07:04	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		04/06/21 16:49	04/07/21 07:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/06/21 16:49*	*04/07/21 07:04*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*04/06/21 16:49*	*04/07/21 07:04*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 07:09	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Client Sample ID: CH03A

Date Collected: 03/30/21 12:10
Date Received: 03/31/21 13:21

Lab Sample ID: 890-464-2

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 07:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 07:09	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/05/21 07:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*04/03/21 13:41*	*04/05/21 07:09*	*1*
o-Terphenyl	*118*		*70 - 130*	*04/03/21 13:41*	*04/05/21 07:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.27**		4.95		mg/Kg			04/08/21 21:10	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-464-1	CH03	113	94										
890-464-2	CH03A	108	95										
LCS 880-1404/1-A	Lab Control Sample	104	105										
LCSD 880-1404/2-A	Lab Control Sample Dup	105	106										
MB 880-1404/5-A	Method Blank	105	97										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-464-1	CH03	110	118										
890-464-2	CH03A	108	118										
LCS 880-1283/2-A	Lab Control Sample	121	116										
LCSD 880-1283/3-A	Lab Control Sample Dup	117	113										
MB 880-1283/1-A	Method Blank	100	104										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1404/5-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1404

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*

Lab Sample ID: LCS 880-1404/1-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1045		mg/Kg		105	70 - 130		
Toluene			0.100	0.09651		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1000		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.1967		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1008		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-1404/2-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	0	35
Toluene			0.100	0.09625		mg/Kg		96	70 - 130	0	35
Ethylbenzene			0.100	0.09959		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1955		mg/Kg		98	70 - 130	1	35
o-Xylene			0.100	0.09893		mg/Kg		99	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-1283/1-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1283

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*04/03/21 13:41*	*04/04/21 22:41*	*1*
o-Terphenyl	*104*		*70 - 130*	*04/03/21 13:41*	*04/04/21 22:41*	*1*

Lab Sample ID: LCS 880-1283/2-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1283

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1072		mg/Kg		107	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: LCSD 880-1283/3-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1283

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1076		mg/Kg		108	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	976.6		mg/Kg		98	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1412/1-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/08/21 19:02	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1412/2-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	265.5		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-1412/3-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	265.3		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

GC VOA

Analysis Batch: 1370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-464-1	CH03	Total/NA	Solid	8021B	1404
890-464-2	CH03A	Total/NA	Solid	8021B	1404
MB 880-1404/5-A	Method Blank	Total/NA	Solid	8021B	1404
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	8021B	1404
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1404

Prep Batch: 1404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-464-1	CH03	Total/NA	Solid	5035	
890-464-2	CH03A	Total/NA	Solid	5035	
MB 880-1404/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 1283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-464-1	CH03	Total/NA	Solid	8015NM Prep	
890-464-2	CH03A	Total/NA	Solid	8015NM Prep	
MB 880-1283/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1283/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-464-1	CH03	Total/NA	Solid	8015B NM	1283
890-464-2	CH03A	Total/NA	Solid	8015B NM	1283
MB 880-1283/1-A	Method Blank	Total/NA	Solid	8015B NM	1283
LCS 880-1283/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1283
LCSD 880-1283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1283

HPLC/IC

Leach Batch: 1412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-464-1	CH03	Soluble	Solid	DI Leach	
890-464-2	CH03A	Soluble	Solid	DI Leach	
MB 880-1412/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-464-1	CH03	Soluble	Solid	300.0	1412
890-464-2	CH03A	Soluble	Solid	300.0	1412
MB 880-1412/1-A	Method Blank	Soluble	Solid	300.0	1412
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	300.0	1412
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1412

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-464-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Client Sample ID: CH03 Lab Sample ID: 890-464-1

Date Collected: 03/30/21 11:50 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 06:44	AJ	XM
Total/NA	Prep	8015NM Prep			1283	04/03/21 13:41	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/05/21 06:47	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 21:05	CH	XM

Client Sample ID: CH03A Lab Sample ID: 890-464-2

Date Collected: 03/30/21 12:10 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 07:04	AJ	XM
Total/NA	Prep	8015NM Prep			1283	04/03/21 13:41	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/05/21 07:09	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 21:10	CH	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-464-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-464-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-464-1
SDG: TE012920072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-464-1	CH03	Solid	03/30/21 11:50	03/31/21 13:21	
890-464-2	CH03A	Solid	03/30/21 12:10	03/31/21 13:21	

Chain of Custody

Work Order No: _____

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

4/9/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA 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:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project: NM
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Phantom Banks 25-25-35	Turn Around	
Project Number:	TE012920072	Routine	X
P.O. Number:	NRM2017953444	Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0 | 0.8	Thermometer ID	
Received Intact:	(Yes) No	T_NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
CH03	S	3-30-21	1150	1'	1	✓	✓	✓	Discrete
CH03A	1	1	1210	4'	1	✓	✓	✓	

890-464 Chain of Custody

Work Order Notes

CH#: 1140221001

API#: 30-015-40756

TAT starts the day recevied 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 Tl Sn U V Zn

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Gabby Ordonez	3/31/21 13:21	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-142 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-464-1
Address: 1211 W Florida Ave	Due Date Requested: 4/6/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Phantom Bank 25-25-30	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
CH03 (890-464-1)	3/30/21	11 50 Mountain		Solid			X	X	X	1	
CH03A (890-464-2)	3/30/21	12 10 Mountain		Solid			X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Cole Crafton 3:31 21	Date/Time:	Company	Received by: Caitlin Cook	Date/Time: 4-1-21 11:30am	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-464-1
SDG Number: TE012920072

Login Number: 464
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-464-1
SDG Number: TE012920072

Login Number: 464
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/01/21 11:43 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-465-1
Laboratory Sample Delivery Group: TE012920072
Client Project/Site: Phantom Bank 25-25-30

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
4/9/2021 4:44:27 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Laboratory Job ID: 890-465-1
SDG: TE012920072

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-465-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Job ID: 890-465-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-465-1

Comments
No additional comments.

Receipt
The samples were received on 3/31/2021 1:21 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-1366 and analytical batch 880-1370 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: instrument injection error on CCV

(CCV 880-1370/2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Client Sample ID: CH04

Lab Sample ID: 890-465-1
Matrix: Solid
Date Collected: 03/30/21 13:30
Date Received: 03/31/21 13:21
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:24	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/06/21 16:49	04/07/21 07:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:24	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/06/21 16:49	04/07/21 07:24	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*04/06/21 16:49*	*04/07/21 07:24*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*04/06/21 16:49*	*04/07/21 07:24*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 07:29	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 07:29	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 07:29	1
Total TPH	<50.1	U	50.1		mg/Kg		04/03/21 13:41	04/05/21 07:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*04/03/21 13:41*	*04/05/21 07:29*	*1*
o-Terphenyl	*112*		*70 - 130*	*04/03/21 13:41*	*04/05/21 07:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**573**		4.96		mg/Kg			04/08/21 21:15	1

Client Sample ID: CH04A

Lab Sample ID: 890-465-2
Matrix: Solid
Date Collected: 03/30/21 13:50
Date Received: 03/31/21 13:21
Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 07:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 07:45	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 07:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/06/21 16:49*	*04/07/21 07:45*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/06/21 16:49*	*04/07/21 07:45*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Client Sample ID: CH04A
Date Collected: 03/30/21 13:50
Date Received: 03/31/21 13:21
Sample Depth: - 4

Lab Sample ID: 890-465-2
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+	49.9		mg/Kg		04/05/21 09:24	04/05/21 18:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/05/21 09:24	04/05/21 18:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/05/21 09:24	04/05/21 18:57	1
Total TPH	<49.9	U	49.9		mg/Kg		04/05/21 09:24	04/05/21 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*04/05/21 09:24*	*04/05/21 18:57*	*1*
o-Terphenyl	*123*		*70 - 130*	*04/05/21 09:24*	*04/05/21 18:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	291		4.98		mg/Kg			04/08/21 21:20	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-465-1	CH04	111	102										
890-465-2	CH04A	116	98										
LCS 880-1404/1-A	Lab Control Sample	104	105										
LCSD 880-1404/2-A	Lab Control Sample Dup	105	106										
MB 880-1404/5-A	Method Blank	105	97										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-465-1	CH04	108	112										
890-465-2	CH04A	113	123										
LCS 880-1283/2-A	Lab Control Sample	121	116										
LCS 880-1303/2-A	Lab Control Sample	114	111										
LCSD 880-1283/3-A	Lab Control Sample Dup	117	113										
LCSD 880-1303/3-A	Lab Control Sample Dup	114	106										
MB 880-1283/1-A	Method Blank	100	104										
MB 880-1303/1-A	Method Blank	112	124										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1404/5-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1404

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/06/21 16:49	04/07/21 00:34	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 16:49	04/07/21 00:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/06/21 16:49*	*04/07/21 00:34*	*1*

Lab Sample ID: LCS 880-1404/1-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1045		mg/Kg		105	70 - 130		
Toluene			0.100	0.09651		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1000		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.1967		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1008		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-1404/2-A
Matrix: Solid
Analysis Batch: 1370

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1404

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	0	35
Toluene			0.100	0.09625		mg/Kg		96	70 - 130	0	35
Ethylbenzene			0.100	0.09959		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1955		mg/Kg		98	70 - 130	1	35
o-Xylene			0.100	0.09893		mg/Kg		99	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-1283/1-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1283

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:41	04/04/21 22:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*04/03/21 13:41*	*04/04/21 22:41*	*1*
o-Terphenyl	*104*		*70 - 130*	*04/03/21 13:41*	*04/04/21 22:41*	*1*

Lab Sample ID: LCS 880-1283/2-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1283

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1072		mg/Kg		107	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: LCSD 880-1283/3-A
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1283

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1076		mg/Kg		108	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	976.6		mg/Kg		98	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: MB 880-1303/1-A
Matrix: Solid
Analysis Batch: 1310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1303

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1
Total TPH	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	04/05/21 09:24	04/05/21 15:03	1
o-Terphenyl	124		70 - 130	04/05/21 09:24	04/05/21 15:03	1

Lab Sample ID: LCS 880-1303/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 1310 — **Prep Batch: 1303**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1426	*+	mg/Kg		143	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1198		mg/Kg		120	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-1303/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 1310 — **Prep Batch: 1303**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1308	*+	mg/Kg		131	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1154		mg/Kg		115	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	106		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1412/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 1523

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/08/21 19:02	1

Lab Sample ID: LCS 880-1412/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 1523

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	265.5		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-1412/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 1523

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	265.3		mg/Kg		106	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc. Job ID: 890-465-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

GC VOA

Analysis Batch: 1370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-1	CH04	Total/NA	Solid	8021B	1404
890-465-2	CH04A	Total/NA	Solid	8021B	1404
MB 880-1404/5-A	Method Blank	Total/NA	Solid	8021B	1404
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	8021B	1404
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1404

Prep Batch: 1404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-1	CH04	Total/NA	Solid	5035	
890-465-2	CH04A	Total/NA	Solid	5035	
MB 880-1404/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1404/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1404/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 1283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-1	CH04	Total/NA	Solid	8015NM Prep	
MB 880-1283/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1283/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-1	CH04	Total/NA	Solid	8015B NM	1283
MB 880-1283/1-A	Method Blank	Total/NA	Solid	8015B NM	1283
LCS 880-1283/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1283
LCSD 880-1283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1283

Prep Batch: 1303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-2	CH04A	Total/NA	Solid	8015NM Prep	
MB 880-1303/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1303/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1303/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-2	CH04A	Total/NA	Solid	8015B NM	1303
MB 880-1303/1-A	Method Blank	Total/NA	Solid	8015B NM	1303
LCS 880-1303/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1303
LCSD 880-1303/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1303

HPLC/IC

Leach Batch: 1412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-1	CH04	Soluble	Solid	DI Leach	
890-465-2	CH04A	Soluble	Solid	DI Leach	
MB 880-1412/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-465-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

HPLC/IC (Continued)

Leach Batch: 1412 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-465-1	CH04	Soluble	Solid	300.0	1412
890-465-2	CH04A	Soluble	Solid	300.0	1412
MB 880-1412/1-A	Method Blank	Soluble	Solid	300.0	1412
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	300.0	1412
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1412

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-465-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Client Sample ID: CH04 Lab Sample ID: 890-465-1

Date Collected: 03/30/21 13:30 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 07:24	AJ	XM
Total/NA	Prep	8015NM Prep			1283	04/03/21 13:41	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/05/21 07:29	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 21:15	CH	XM

Client Sample ID: CH04A Lab Sample ID: 890-465-2

Date Collected: 03/30/21 13:50 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1404	04/06/21 16:49	MR	XM
Total/NA	Analysis	8021B		1	1370	04/07/21 07:45	AJ	XM
Total/NA	Prep	8015NM Prep			1303	04/05/21 09:24	DM	XM
Total/NA	Analysis	8015B NM		1	1310	04/05/21 18:57	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 21:20	CH	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-465-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-465-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-465-1
SDG: TE012920072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-465-1	CH04	Solid	03/30/21 13:30	03/31/21 13:21	- 1
890-465-2	CH04A	Solid	03/30/21 13:50	03/31/21 13:21	- 4

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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4/9/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA 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:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project: NM
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Plowman Fed 25-25-30	Turn Around	
Project Number:	TE0129200 72	Routine	X
P.O. Number:	NRM 201 295 3414	Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0 | 0.8	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
CH04	S	3-30-21	1330	1'	1	✓	✓	✓
CH04A	S	3-30-21	1350	4'	1	✓	✓	✓

890-465 Chain of Custody

Work Order Notes

C/# 1140221001

API#: 30-015-40750

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Discrete

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Gaby Cardenez	3/31/21 13:21	2		
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-142 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-465-1
Address: 1211 W Florida Ave	Due Date Requested: 4/6/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Phantom Bank 25-25-30	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
Preservation Code:											
CH04 (890-465-1)	3/30/21	13 30 Mountain		Solid			X	X	X	1	
CH04A (890-465-2)	3/30/21	13 50 Mountain		Solid			X	X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Cloe Cuff 3-31-21				4/1/21 11.30a.m	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-465-1
SDG Number: TE012920072

Login Number: 465
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-465-1
SDG Number: TE012920072

Login Number: 465
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/01/21 11:42 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-466-1
Laboratory Sample Delivery Group: TE012920072
Client Project/Site: Phantom Bank 25-25-30

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
4/9/2021 4:45:40 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Laboratory Job ID: 890-466-1
SDG: TE012920072

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-466-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Job ID: 890-466-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-466-1

Receipt
The samples were received on 3/31/2021 1:21 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc. Job ID: 890-466-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Client Sample ID: CH05 Lab Sample ID: 890-466-1

Date Collected: 03/30/21 11:15 **Matrix: Solid**
Date Received: 03/31/21 13:21
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 22:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 22:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 22:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 22:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 22:31	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 22:31	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*04/08/21 10:10*	*04/08/21 22:31*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*04/08/21 10:10*	*04/08/21 22:31*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+	49.8		mg/Kg		04/05/21 09:24	04/05/21 19:19	1
Diesel Range Organics (Over C10-C28)	**55.8**		49.8		mg/Kg		04/05/21 09:24	04/05/21 19:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/05/21 09:24	04/05/21 19:19	1
Total TPH	**55.8**		49.8		mg/Kg		04/05/21 09:24	04/05/21 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*04/05/21 09:24*	*04/05/21 19:19*	*1*
o-Terphenyl	*111*		*70 - 130*	*04/05/21 09:24*	*04/05/21 19:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.9**		4.98		mg/Kg			04/08/21 21:25	1

Client Sample ID: CH05A Lab Sample ID: 890-466-2

Date Collected: 03/30/21 11:40 **Matrix: Solid**
Date Received: 03/31/21 13:21
Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 22:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 22:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 22:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/08/21 10:10	04/08/21 22:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 22:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/08/21 10:10	04/08/21 22:56	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*04/08/21 10:10*	*04/08/21 22:56*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*04/08/21 10:10*	*04/08/21 22:56*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Client Sample ID: CH05A
Date Collected: 03/30/21 11:40
Date Received: 03/31/21 13:21
Sample Depth: - 4

Lab Sample ID: 890-466-2
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	50.0		mg/Kg		04/05/21 09:24	04/05/21 19:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 19:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 19:40	1
Total TPH	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*04/05/21 09:24*	*04/05/21 19:40*	*1*
o-Terphenyl	*112*		*70 - 130*	*04/05/21 09:24*	*04/05/21 19:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.6**		4.99		mg/Kg			04/08/21 21:30	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-466-1	CH05	121	82										
890-466-2	CH05A	113	94										
LCS 880-1506/1-A	Lab Control Sample	101	96										
LCSD 880-1506/2-A	Lab Control Sample Dup	110	112										
MB 880-1506/5-A	Method Blank	75	83										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-466-1	CH05	110	111										
890-466-2	CH05A	109	112										
LCS 880-1303/2-A	Lab Control Sample	114	111										
LCSD 880-1303/3-A	Lab Control Sample Dup	114	106										
MB 880-1303/1-A	Method Blank	112	124										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1506/5-A
Matrix: Solid
Analysis Batch: 1508

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1506

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*04/08/21 10:10*	*04/08/21 16:14*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*04/08/21 10:10*	*04/08/21 16:14*	*1*

Lab Sample ID: LCS 880-1506/1-A
Matrix: Solid
Analysis Batch: 1508

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1506

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1038		mg/Kg		104	70 - 130		
Toluene			0.100	0.1129		mg/Kg		113	70 - 130		
Ethylbenzene			0.100	0.1056		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.2152		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1146		mg/Kg		115	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-1506/2-A
Matrix: Solid
Analysis Batch: 1508

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1506

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1103		mg/Kg		110	70 - 130	6	35
Toluene			0.100	0.1052		mg/Kg		105	70 - 130	7	35
Ethylbenzene			0.100	0.1110		mg/Kg		111	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2278		mg/Kg		114	70 - 130	6	35
o-Xylene			0.100	0.1231		mg/Kg		123	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-1303/1-A
Matrix: Solid
Analysis Batch: 1310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1303

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1
Total TPH	<50.0	U	50.0		mg/Kg		04/05/21 09:24	04/05/21 15:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*04/05/21 09:24*	*04/05/21 15:03*	*1*
o-Terphenyl	*124*		*70 - 130*	*04/05/21 09:24*	*04/05/21 15:03*	*1*

Lab Sample ID: LCS 880-1303/2-A
Matrix: Solid
Analysis Batch: 1310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1303

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1426	*+	mg/Kg		143	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1198		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Lab Sample ID: LCSD 880-1303/3-A
Matrix: Solid
Analysis Batch: 1310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1303

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1308	*+	mg/Kg		131	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1154		mg/Kg		115	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*106*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1412/1-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/08/21 19:02	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1412/2-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.5		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-1412/3-A
Matrix: Solid
Analysis Batch: 1523

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	265.3		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-466-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

GC VOA

Prep Batch: 1506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-466-1	CH05	Total/NA	Solid	5035	
890-466-2	CH05A	Total/NA	Solid	5035	
MB 880-1506/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1506/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1506/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 1508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-466-1	CH05	Total/NA	Solid	8021B	1506
890-466-2	CH05A	Total/NA	Solid	8021B	1506
MB 880-1506/5-A	Method Blank	Total/NA	Solid	8021B	1506
LCS 880-1506/1-A	Lab Control Sample	Total/NA	Solid	8021B	1506
LCSD 880-1506/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1506

GC Semi VOA

Prep Batch: 1303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-466-1	CH05	Total/NA	Solid	8015NM Prep	
890-466-2	CH05A	Total/NA	Solid	8015NM Prep	
MB 880-1303/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1303/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1303/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-466-1	CH05	Total/NA	Solid	8015B NM	1303
890-466-2	CH05A	Total/NA	Solid	8015B NM	1303
MB 880-1303/1-A	Method Blank	Total/NA	Solid	8015B NM	1303
LCS 880-1303/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1303
LCSD 880-1303/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1303

HPLC/IC

Leach Batch: 1412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-466-1	CH05	Soluble	Solid	DI Leach	
890-466-2	CH05A	Soluble	Solid	DI Leach	
MB 880-1412/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-466-1	CH05	Soluble	Solid	300.0	1412
890-466-2	CH05A	Soluble	Solid	300.0	1412
MB 880-1412/1-A	Method Blank	Soluble	Solid	300.0	1412
LCS 880-1412/2-A	Lab Control Sample	Soluble	Solid	300.0	1412
LCSD 880-1412/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1412

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-466-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Client Sample ID: CH05 Lab Sample ID: 890-466-1

Date Collected: 03/30/21 11:15 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1506	04/08/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	1508	04/08/21 22:31	AJ	XM
Total/NA	Prep	8015NM Prep			1303	04/05/21 09:24	DM	XM
Total/NA	Analysis	8015B NM		1	1310	04/05/21 19:19	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 21:25	CH	XM

Client Sample ID: CH05A Lab Sample ID: 890-466-2

Date Collected: 03/30/21 11:40 **Matrix: Solid**
Date Received: 03/31/21 13:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1506	04/08/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	1508	04/08/21 22:56	AJ	XM
Total/NA	Prep	8015NM Prep			1303	04/05/21 09:24	DM	XM
Total/NA	Analysis	8015B NM		1	1310	04/05/21 19:40	AJ	XM
Soluble	Leach	DI Leach			1412	04/06/21 19:01	SC	XM
Soluble	Analysis	300.0		1	1523	04/08/21 21:30	CH	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-466-1
Project/Site: Phantom Bank 25-25-30 SDG: TE012920072

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Phantom Bank 25-25-30

Job ID: 890-466-1
SDG: TE012920072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-466-1	CH05	Solid	03/30/21 11:15	03/31/21 13:21	- 1
890-466-2	CH05A	Solid	03/30/21 11:40	03/31/21 13:21	- 4

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

Page 1 of 1

4/9/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA 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:		travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project: NM
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Thornton Banks 25-25-30	Turn Around	
Project Number:	TE01292 00072	Routine	X
P.O. Number:	NRM2012953444	Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.0 10.8	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:		
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
CH05	S	3/30/21	1115	1'	1	X	X	X
CH05A	↓	↓	1140	4'	1	X	X	X

ANALYSIS REQUEST

890-466 Chain of Custody

Work Order Notes

CC#: 114022/001

API#: 30-015-40756

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Page 16 of 19

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	[signature]	Gabby Ordonez	3/31/21 13:21	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-142 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-466-1
Address: 1211 W Florida Ave	Due Date Requested: 4/6/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Phantom Bank 25-25-30	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
Preservation Code:											
CH05 (890-466-1)	3/30/21	11 15 Mountain		Solid			X	X	X	1	
CH05A (890-466-2)	3/30/21	11 40 Mountain		Solid			X	X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Cloe Cuffo 3.31.21	Date/Time:	Company	Received by:	Date/Time: 4-1-21 11:30am	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-466-1
SDG Number: TE012920072

Login Number: 466
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-466-1
SDG Number: TE012920072

Login Number: 466
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/01/21 11:42 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

Certificate of Analysis Summary 661296

LT Environmental, Inc., Arvada, CO

Project Name: Phantom Banks 25- 25-30

Project Id: 012920072
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 05.12.2020 14:00
Report Date: 05.15.2020 08:45
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	661296-001		661296-002		661296-003		661296-004					
	Field Id:	BH01		BH02		BH03		BH04					
	Depth:	1- ft		1- ft		1- ft		1- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	05.11.2020 11:15		05.11.2020 11:45		05.11.2020 12:30		05.11.2020 15:50					
BTEX by EPA 8021B	***Extracted:***	05.12.2020 14:21		05.12.2020 14:21		05.12.2020 14:21		05.12.2020 14:21					
	Analyzed:	05.13.2020 15:17		05.13.2020 15:37		05.13.2020 14:56		05.13.2020 09:50					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.0250	0.0250	<0.0500	0.0500	<0.00260	0.00260	<0.00200	0.00200				
Toluene		0.0480	0.0250	3.94	0.200	<0.00260	0.00260	<0.00200	0.00200				
Ethylbenzene		1.08	0.100	2.14	0.200	0.100	0.0104	<0.00200	0.00200				
m,p-Xylenes		0.952	0.200	4.55	0.400	0.182	0.0208	<0.00399	0.00399				
o-Xylene		6.12	0.100	7.13	0.200	0.485	0.0104	<0.00200	0.00200				
Total Xylenes		7.07	0.100	11.7	0.200	0.667	0.0104	<0.00200	0.00200				
Total BTEX		8.20	0.0250	17.8	0.0500	0.767	0.00260	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	05.12.2020 17:00		05.12.2020 17:00		05.12.2020 17:00		05.12.2020 17:00					
	Analyzed:	05.13.2020 00:54		05.13.2020 01:00		05.13.2020 01:05		05.13.2020 01:11					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		880	9.94	196	10.0	962	9.94	124	9.98				
TPH by SW8015 Mod	***Extracted:***	05.13.2020 11:40		05.13.2020 11:40		05.13.2020 11:40		05.13.2020 11:40					
	Analyzed:	05.14.2020 02:34		05.14.2020 11:27		05.14.2020 03:15		05.14.2020 10:40					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		841	50.2	2990	502	254	50.2	<50.0	50.0				
Diesel Range Organics (DRO)		4680	50.2	15800	502	3200	50.2	107	50.0				
Motor Oil Range Hydrocarbons (MRO)		371	50.2	1070	502	271	50.2	<50.0	50.0				
Total GRO-DRO		5520	50.2	18800	502	3450	50.2	107	50.0				
Total TPH		5890	50.2	19900	502	3730	50.2	107	50.0				

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

Jessica Kramer
Project Manager

Analytical Report 661296

for

LT Environmental, Inc.

Project Manager: Dan Moir

Phantom Banks 25- 25-30

012920072

05.15.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

05.15.2020

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

Reference: XENCO Report No(s): **661296**
Phantom Banks 25- 25-30
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661296. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 661296 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	05.11.2020 11:15	1 ft	661296-001
BH02	S	05.11.2020 11:45	1 ft	661296-002
BH03	S	05.11.2020 12:30	1 ft	661296-003
BH04	S	05.11.2020 15:50	1 ft	661296-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Phantom Banks 25- 25-30

Project ID: *012920072*
Work Order Number(s): *661296*

Report Date: *05.15.2020*
Date Received: *05.12.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-001	Date Collected:	05.11.2020 11:15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**880**	9.94	mg/kg	05.13.2020 00:54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**841**	50.2	mg/kg	05.14.2020 02:34		1
Diesel Range Organics (DRO)	C10C28DRO	**4680**	50.2	mg/kg	05.14.2020 02:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**371**	50.2	mg/kg	05.14.2020 02:34		1
Total GRO-DRO	PHC628	**5520**	50.2	mg/kg	05.14.2020 02:34		1
Total TPH	PHC635	**5890**	50.2	mg/kg	05.14.2020 02:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	05.14.2020 02:34	
o-Terphenyl	84-15-1	116	%	70-135	05.14.2020 02:34	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-001	Date Collected:	05.11.2020 11:15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0250	0.0250	mg/kg	05.13.2020 15:17	U	50
Toluene	108-88-3	**0.0480**	0.0250	mg/kg	05.13.2020 15:17		50
Ethylbenzene	100-41-4	**1.08**	0.100	mg/kg	05.13.2020 15:17		50
m,p-Xylenes	179601-23-1	**0.952**	0.200	mg/kg	05.13.2020 15:17		50
o-Xylene	95-47-6	**6.12**	0.100	mg/kg	05.13.2020 15:17		50
Total Xylenes	1330-20-7	**7.07**	0.100	mg/kg	05.13.2020 15:17		50
Total BTEX		**8.20**	0.0250	mg/kg	05.13.2020 15:17		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.13.2020 15:17	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.13.2020 15:17	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-002	Date Collected:	05.11.2020 11:45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**196**	10.0	mg/kg	05.13.2020 01:00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2990**	502	mg/kg	05.14.2020 11:27		10
Diesel Range Organics (DRO)	C10C28DRO	**15800**	502	mg/kg	05.14.2020 11:27		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1070**	502	mg/kg	05.14.2020 11:27		10
Total GRO-DRO	PHC628	**18800**	502	mg/kg	05.14.2020 11:27		10
Total TPH	PHC635	**19900**	502	mg/kg	05.14.2020 11:27		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.14.2020 11:27	
o-Terphenyl	84-15-1	111	%	70-135	05.14.2020 11:27	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-002	Date Collected:	05.11.2020 11:45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0500	0.0500	mg/kg	05.13.2020 15:37	U	100
Toluene	108-88-3	**3.94**	0.200	mg/kg	05.13.2020 15:37		100
Ethylbenzene	100-41-4	**2.14**	0.200	mg/kg	05.13.2020 15:37		100
m,p-Xylenes	179601-23-1	**4.55**	0.400	mg/kg	05.13.2020 15:37		100
o-Xylene	95-47-6	**7.13**	0.200	mg/kg	05.13.2020 15:37		100
Total Xylenes	1330-20-7	**11.7**	0.200	mg/kg	05.13.2020 15:37		100
Total BTEX		**17.8**	0.0500	mg/kg	05.13.2020 15:37		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.13.2020 15:37	
1,4-Difluorobenzene	540-36-3	99	%	70-130	05.13.2020 15:37	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-003	Date Collected:	05.11.2020 12:30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**962**	9.94	mg/kg	05.13.2020 01:05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**254**	50.2	mg/kg	05.14.2020 03:15		1
Diesel Range Organics (DRO)	C10C28DRO	**3200**	50.2	mg/kg	05.14.2020 03:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**271**	50.2	mg/kg	05.14.2020 03:15		1
Total GRO-DRO	PHC628	**3450**	50.2	mg/kg	05.14.2020 03:15		1
Total TPH	PHC635	**3730**	50.2	mg/kg	05.14.2020 03:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	05.14.2020 03:15	
o-Terphenyl	84-15-1	114	%	70-135	05.14.2020 03:15	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-003	Date Collected:	05.11.2020 12:30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00260	0.00260	mg/kg	05.13.2020 14:56	U	1
Toluene	108-88-3	<0.00260	0.00260	mg/kg	05.13.2020 14:56	U	1
Ethylbenzene	100-41-4	**0.100**	0.0104	mg/kg	05.13.2020 14:56		1
m,p-Xylenes	179601-23-1	**0.182**	0.0208	mg/kg	05.13.2020 14:56		1
o-Xylene	95-47-6	**0.485**	0.0104	mg/kg	05.13.2020 14:56		1
Total Xylenes	1330-20-7	**0.667**	0.0104	mg/kg	05.13.2020 14:56		1
Total BTEX		**0.767**	0.00260	mg/kg	05.13.2020 14:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.13.2020 14:56	
1,4-Difluorobenzene	540-36-3	96	%	70-130	05.13.2020 14:56	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-004	Date Collected:	05.11.2020 15:50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**124**	9.98	mg/kg	05.13.2020 01:11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 10:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**107**	50.0	mg/kg	05.14.2020 10:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 10:40	U	1
Total GRO-DRO	PHC628	**107**	50.0	mg/kg	05.14.2020 10:40		1
Total TPH	PHC635	**107**	50.0	mg/kg	05.14.2020 10:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	05.14.2020 10:40	
o-Terphenyl	84-15-1	126	%	70-135	05.14.2020 10:40	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-004	Date Collected:	05.11.2020 15:50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.13.2020 09:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.13.2020 09:50	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.13.2020 09:50	

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

QC Summary 661296

LT Environmental, Inc.

Phantom Banks 25- 25-30

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125748 — Matrix: Solid — Date Prep: 05.12.2020
MB Sample Id: 7703192-1-BLK — LCS Sample Id: 7703192-1-BKS — LCSD Sample Id: 7703192-1-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	251	100	250	100	90-110	0	20	mg/kg	05.12.2020 22:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125748 — Matrix: Soil — Date Prep: 05.12.2020
Parent Sample Id: 661220-014 — MS Sample Id: 661220-014 S — MSD Sample Id: 661220-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.9	200	251	98	253	98	90-110	1	20	mg/kg	05.12.2020 22:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125748 — Matrix: Soil — Date Prep: 05.12.2020
Parent Sample Id: 661295-003 — MS Sample Id: 661295-003 S — MSD Sample Id: 661295-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1150	201	1330	90	1350	99	90-110	1	20	mg/kg	05.13.2020 00:13	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3125908 — Matrix: Solid — Date Prep: 05.13.2020
MB Sample Id: 7703305-1-BLK — LCS Sample Id: 7703305-1-BKS — LCSD Sample Id: 7703305-1-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	991	99	996	100	70-135	1	35	mg/kg	05.14.2020 09:59	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1090	109	70-135	2	35	mg/kg	05.14.2020 09:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		123		122		70-135	%	05.14.2020 09:59
o-Terphenyl	135		124		121		70-135	%	05.14.2020 09:59

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3125908 — Matrix: Solid — Date Prep: 05.13.2020
MB Sample Id: 7703305-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.13.2020 12:23	

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

QC Summary 661296

LT Environmental, Inc.

Phantom Banks 25- 25-30

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3125908 Matrix: Soil Date Prep: 05.13.2020
Parent Sample Id: 661180-001 MS Sample Id: 661180-001 S MSD Sample Id: 661180-001 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)	<50.1	1000	1010	101	1040	104	70-135	3	35	mg/kg	05.13.2020 23:07	
Diesel Range Organics (DRO)	1090	1000	2130	104	2300	121	70-135	8	35	mg/kg	05.13.2020 23:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		122		70-135	%	05.13.2020 23:07
o-Terphenyl	107		110		70-135	%	05.13.2020 23:07

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3125867 Matrix: Solid Date Prep: 05.12.2020
MB Sample Id: 7703235-1-BLK LCS Sample Id: 7703235-1-BKS LCSD Sample Id: 7703235-1-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	0.111	111	0.103	103	70-130	7	35	mg/kg	05.12.2020 23:25	
Toluene	<0.00200	0.100	0.106	106	0.0977	98	70-130	8	35	mg/kg	05.12.2020 23:25	
Ethylbenzene	<0.00200	0.100	0.0993	99	0.0915	92	71-129	8	35	mg/kg	05.12.2020 23:25	
m,p-Xylenes	<0.00400	0.200	0.201	101	0.185	93	70-135	8	35	mg/kg	05.12.2020 23:25	
o-Xylene	<0.00200	0.100	0.103	103	0.0947	95	71-133	8	35	mg/kg	05.12.2020 23:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		104		70-130	%	05.12.2020 23:25
4-Bromofluorobenzene	96		92		94		70-130	%	05.12.2020 23:25

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3125867 Matrix: Soil Date Prep: 05.12.2020
Parent Sample Id: 661298-001 MS Sample Id: 661298-001 S MSD Sample Id: 661298-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.104	104	0.0971	97	70-130	7	35	mg/kg	05.13.2020 00:06	
Toluene	<0.00200	0.0998	0.0970	97	0.0929	93	70-130	4	35	mg/kg	05.13.2020 00:06	
Ethylbenzene	<0.00200	0.0998	0.0887	89	0.0850	85	71-129	4	35	mg/kg	05.13.2020 00:06	
m,p-Xylenes	<0.00399	0.200	0.178	89	0.173	86	70-135	3	35	mg/kg	05.13.2020 00:06	
o-Xylene	<0.00200	0.0998	0.0911	91	0.0879	88	71-133	4	35	mg/kg	05.13.2020 00:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	05.13.2020 00:06
4-Bromofluorobenzene	94		100		70-130	%	05.13.2020 00:06

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

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

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

Chain of Custody

Work Order No: 620296

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Phantom Banks 25-25-30	Turn Around	
Project Number:	012920072	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4.0	Thermometer ID	T-NM-007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes (No) N/A	Total Containers:	4
Sample Custody Seals:	Yes (No) N/A		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	5.11.20	1115	1'	1	X	X	X
BH02	S	5.11.20	1145	1'	1	X	X	X
BH03	S	5.11.20	1230	1'	1	X	X	X
BH04	S	5.11.20	1550	1'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5/12/20 14:00	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.12.2020 02.00.00 PM

Work Order #: 661296

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: Elizabeth McClellan Date: 05.12.2020

Checklist reviewed by: Jessica Kramer Date: 05.14.2020

Jessica Kramer

Certificate of Analysis Summary 661296

LT Environmental, Inc., Arvada, CO

Project Name: Phantom Banks 25- 25-30

Project Id: 012920072
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 05.12.2020 14:00
Report Date: 05.15.2020 15:54
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	661296-001		661296-002		661296-003		661296-004					
	Field Id:	BH01		BH02		BH03		BH04					
	Depth:	1- ft		1- ft		1- ft		1- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	05.11.2020 11:15		05.11.2020 11:45		05.11.2020 12:30		05.11.2020 15:50					
BTEX by EPA 8021B	***Extracted:***	05.12.2020 14:21		05.12.2020 14:21		05.12.2020 14:21		05.12.2020 14:21					
	Analyzed:	05.13.2020 15:17		05.13.2020 15:37		05.13.2020 14:56		05.13.2020 09:50					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.0250	0.0250	<0.0500	0.0500	<0.00260	0.00260	<0.00200	0.00200				
Toluene		0.0480	0.0250	3.94	0.200	<0.00260	0.00260	<0.00200	0.00200				
Ethylbenzene		1.08	0.100	2.14	0.200	0.100	0.0104	<0.00200	0.00200				
m,p-Xylenes		0.952	0.200	4.55	0.400	0.182	0.0208	<0.00399	0.00399				
o-Xylene		6.12	0.100	7.13	0.200	0.485	0.0104	<0.00200	0.00200				
Total Xylenes		7.07	0.100	11.7	0.200	0.667	0.0104	<0.00200	0.00200				
Total BTEX		8.20	0.0250	17.8	0.0500	0.767	0.00260	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	05.12.2020 17:00		05.12.2020 17:00		05.12.2020 17:00		05.12.2020 17:00					
	Analyzed:	05.13.2020 00:54		05.13.2020 01:00		05.13.2020 01:05		05.13.2020 01:11					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		880	9.94	196	10.0	962	9.94	124	9.98				
TPH by SW8015 Mod	***Extracted:***	05.13.2020 11:40		05.13.2020 11:40		05.13.2020 11:40		05.13.2020 11:40					
	Analyzed:	05.14.2020 02:34		05.14.2020 11:27		05.14.2020 03:15		05.15.2020 09:41					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		841	50.2	2990	502	254	50.2	<50.0	50.0				
Diesel Range Organics (DRO)		4680	50.2	15800	502	3200	50.2	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		371	50.2	1070	502	271	50.2	<50.0	50.0				
Total GRO-DRO		5520	50.2	18800	502	3450	50.2	<50.0	50.0				
Total TPH		5890	50.2	19900	502	3730	50.2	<50.0	50.0				

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

Jessica Kramer
Project Manager

Analytical Report 661296

for

LT Environmental, Inc.

Project Manager: Dan Moir

Phantom Banks 25- 25-30

012920072

05.15.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

05.15.2020

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

Reference: XENCO Report No(s): **661296**
Phantom Banks 25- 25-30
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661296. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 661296 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	05.11.2020 11:15	1 ft	661296-001
BH02	S	05.11.2020 11:45	1 ft	661296-002
BH03	S	05.11.2020 12:30	1 ft	661296-003
BH04	S	05.11.2020 15:50	1 ft	661296-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Phantom Banks 25- 25-30

Project ID: *012920072*
Work Order Number(s): *661296*

Report Date: *05.15.2020*
Date Received: *05.12.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-001	Date Collected:	05.11.2020 11:15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**880**	9.94	mg/kg	05.13.2020 00:54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**841**	50.2	mg/kg	05.14.2020 02:34		1
Diesel Range Organics (DRO)	C10C28DRO	**4680**	50.2	mg/kg	05.14.2020 02:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**371**	50.2	mg/kg	05.14.2020 02:34		1
Total GRO-DRO	PHC628	**5520**	50.2	mg/kg	05.14.2020 02:34		1
Total TPH	PHC635	**5890**	50.2	mg/kg	05.14.2020 02:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	05.14.2020 02:34	
o-Terphenyl	84-15-1	116	%	70-135	05.14.2020 02:34	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-001	Date Collected:	05.11.2020 11:15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0250	0.0250	mg/kg	05.13.2020 15:17	U	50
Toluene	108-88-3	**0.0480**	0.0250	mg/kg	05.13.2020 15:17		50
Ethylbenzene	100-41-4	**1.08**	0.100	mg/kg	05.13.2020 15:17		50
m,p-Xylenes	179601-23-1	**0.952**	0.200	mg/kg	05.13.2020 15:17		50
o-Xylene	95-47-6	**6.12**	0.100	mg/kg	05.13.2020 15:17		50
Total Xylenes	1330-20-7	**7.07**	0.100	mg/kg	05.13.2020 15:17		50
Total BTEX		**8.20**	0.0250	mg/kg	05.13.2020 15:17		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.13.2020 15:17	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.13.2020 15:17	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-002	Date Collected:	05.11.2020 11:45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**196**	10.0	mg/kg	05.13.2020 01:00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2990**	502	mg/kg	05.14.2020 11:27		10
Diesel Range Organics (DRO)	C10C28DRO	**15800**	502	mg/kg	05.14.2020 11:27		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1070**	502	mg/kg	05.14.2020 11:27		10
Total GRO-DRO	PHC628	**18800**	502	mg/kg	05.14.2020 11:27		10
Total TPH	PHC635	**19900**	502	mg/kg	05.14.2020 11:27		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.14.2020 11:27	
o-Terphenyl	84-15-1	111	%	70-135	05.14.2020 11:27	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-002	Date Collected:	05.11.2020 11:45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0500	0.0500	mg/kg	05.13.2020 15:37	U	100
Toluene	108-88-3	**3.94**	0.200	mg/kg	05.13.2020 15:37		100
Ethylbenzene	100-41-4	**2.14**	0.200	mg/kg	05.13.2020 15:37		100
m,p-Xylenes	179601-23-1	**4.55**	0.400	mg/kg	05.13.2020 15:37		100
o-Xylene	95-47-6	**7.13**	0.200	mg/kg	05.13.2020 15:37		100
Total Xylenes	1330-20-7	**11.7**	0.200	mg/kg	05.13.2020 15:37		100
Total BTEX		**17.8**	0.0500	mg/kg	05.13.2020 15:37		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.13.2020 15:37	
1,4-Difluorobenzene	540-36-3	99	%	70-130	05.13.2020 15:37	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-003	Date Collected:	05.11.2020 12:30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**962**	9.94	mg/kg	05.13.2020 01:05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**254**	50.2	mg/kg	05.14.2020 03:15		1
Diesel Range Organics (DRO)	C10C28DRO	**3200**	50.2	mg/kg	05.14.2020 03:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**271**	50.2	mg/kg	05.14.2020 03:15		1
Total GRO-DRO	PHC628	**3450**	50.2	mg/kg	05.14.2020 03:15		1
Total TPH	PHC635	**3730**	50.2	mg/kg	05.14.2020 03:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	05.14.2020 03:15	
o-Terphenyl	84-15-1	114	%	70-135	05.14.2020 03:15	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-003	Date Collected:	05.11.2020 12:30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00260	0.00260	mg/kg	05.13.2020 14:56	U	1
Toluene	108-88-3	<0.00260	0.00260	mg/kg	05.13.2020 14:56	U	1
Ethylbenzene	100-41-4	**0.100**	0.0104	mg/kg	05.13.2020 14:56		1
m,p-Xylenes	179601-23-1	**0.182**	0.0208	mg/kg	05.13.2020 14:56		1
o-Xylene	95-47-6	**0.485**	0.0104	mg/kg	05.13.2020 14:56		1
Total Xylenes	1330-20-7	**0.667**	0.0104	mg/kg	05.13.2020 14:56		1
Total BTEX		**0.767**	0.00260	mg/kg	05.13.2020 14:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.13.2020 14:56	
1,4-Difluorobenzene	540-36-3	96	%	70-130	05.13.2020 14:56	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-004	Date Collected:	05.11.2020 15:50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3125748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**124**	9.98	mg/kg	05.13.2020 01:11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.13.2020 11:40	Basis:	Wet Weight
Seq Number:	3125908				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.15.2020 09:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.15.2020 09:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.15.2020 09:41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.15.2020 09:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.15.2020 09:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.15.2020 09:41	
o-Terphenyl	84-15-1	115	%	70-135	05.15.2020 09:41	

Certificate of Analytical Results 661296

LT Environmental, Inc., Arvada, CO

Phantom Banks 25- 25-30

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	05.12.2020 14:00
Lab Sample Id:	661296-004	Date Collected:	05.11.2020 15:50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.12.2020 14:21	Basis:	Wet Weight
Seq Number:	3125867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.13.2020 09:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 09:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.13.2020 09:50	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.13.2020 09:50	

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

QC Summary 661296

LT Environmental, Inc.

Phantom Banks 25- 25-30

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125748 — Matrix: Solid — Date Prep: 05.12.2020
MB Sample Id: 7703192-1-BLK — LCS Sample Id: 7703192-1-BKS — LCSD Sample Id: 7703192-1-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	251	100	250	100	90-110	0	20	mg/kg	05.12.2020 22:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125748 — Matrix: Soil — Date Prep: 05.12.2020
Parent Sample Id: 661220-014 — MS Sample Id: 661220-014 S — MSD Sample Id: 661220-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.9	200	251	98	253	98	90-110	1	20	mg/kg	05.12.2020 22:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125748 — Matrix: Soil — Date Prep: 05.12.2020
Parent Sample Id: 661295-003 — MS Sample Id: 661295-003 S — MSD Sample Id: 661295-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1150	201	1330	90	1350	99	90-110	1	20	mg/kg	05.13.2020 00:13	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3125908 — Matrix: Solid — Date Prep: 05.13.2020
MB Sample Id: 7703305-1-BLK — LCS Sample Id: 7703305-1-BKS — LCSD Sample Id: 7703305-1-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	991	99	996	100	70-135	1	35	mg/kg	05.14.2020 09:59	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1090	109	70-135	2	35	mg/kg	05.14.2020 09:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		123		122		70-135	%	05.14.2020 09:59
o-Terphenyl	135		124		121		70-135	%	05.14.2020 09:59

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3125908 — Matrix: Solid — Date Prep: 05.13.2020
MB Sample Id: 7703305-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.13.2020 12:23	

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

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

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

QC Summary 661296

LT Environmental, Inc.

Phantom Banks 25- 25-30

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3125908 Matrix: Soil Date Prep: 05.13.2020
Parent Sample Id: 661180-001 MS Sample Id: 661180-001 S MSD Sample Id: 661180-001 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)	<50.1	1000	1010	101	1040	104	70-135	3	35	mg/kg	05.13.2020 23:07	
Diesel Range Organics (DRO)	1090	1000	2130	104	2300	121	70-135	8	35	mg/kg	05.13.2020 23:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		122		70-135	%	05.13.2020 23:07
o-Terphenyl	107		110		70-135	%	05.13.2020 23:07

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3125867 Matrix: Solid Date Prep: 05.12.2020
MB Sample Id: 7703235-1-BLK LCS Sample Id: 7703235-1-BKS LCSD Sample Id: 7703235-1-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	0.111	111	0.103	103	70-130	7	35	mg/kg	05.12.2020 23:25	
Toluene	<0.00200	0.100	0.106	106	0.0977	98	70-130	8	35	mg/kg	05.12.2020 23:25	
Ethylbenzene	<0.00200	0.100	0.0993	99	0.0915	92	71-129	8	35	mg/kg	05.12.2020 23:25	
m,p-Xylenes	<0.00400	0.200	0.201	101	0.185	93	70-135	8	35	mg/kg	05.12.2020 23:25	
o-Xylene	<0.00200	0.100	0.103	103	0.0947	95	71-133	8	35	mg/kg	05.12.2020 23:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		104		70-130	%	05.12.2020 23:25
4-Bromofluorobenzene	96		92		94		70-130	%	05.12.2020 23:25

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3125867 Matrix: Soil Date Prep: 05.12.2020
Parent Sample Id: 661298-001 MS Sample Id: 661298-001 S MSD Sample Id: 661298-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.104	104	0.0971	97	70-130	7	35	mg/kg	05.13.2020 00:06	
Toluene	<0.00200	0.0998	0.0970	97	0.0929	93	70-130	4	35	mg/kg	05.13.2020 00:06	
Ethylbenzene	<0.00200	0.0998	0.0887	89	0.0850	85	71-129	4	35	mg/kg	05.13.2020 00:06	
m,p-Xylenes	<0.00399	0.200	0.178	89	0.173	86	70-135	3	35	mg/kg	05.13.2020 00:06	
o-Xylene	<0.00200	0.0998	0.0911	91	0.0879	88	71-133	4	35	mg/kg	05.13.2020 00:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	05.13.2020 00:06
4-Bromofluorobenzene	94		100		70-130	%	05.13.2020 00:06

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

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

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

Chain of Custody

Work Order No: 620296

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Phantom Banks 25-25-30	Turn Around	
Project Number:	012920072	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4.0	Thermometer ID	T-NM-007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes (No) N/A	Total Containers:	4
Sample Custody Seals:	Yes (No) N/A		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	5.11.20	1115	1'	1	X	X	X
BH02	S	5.11.20	1145	1'	1	X	X	X
BH03	S	5.11.20	1230	1'	1	X	X	X
BH04	S	5.11.20	1550	1'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5/12/20 14:00	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.12.2020 02.00.00 PM

Work Order #: 661296

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: Elizabeth McClellan Date: 05.12.2020

Checklist reviewed by: Jessica Kramer Date: 05.14.2020

Jessica Kramer

Certificate of Analysis Summary 664078

LT Environmental, Inc., Arvada, CO

Project Name: Phantom Banks 25-25-30

Project Id: 012920072
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 06.10.2020 14:30
Report Date: 06.12.2020 08:37
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	664078-001					
	Field Id:	PH01					
	Depth:	2- ft					
	Matrix:	SOIL					
	Sampled:	06.10.2020 10:45					
BTEX by EPA 8021B	***Extracted:***	06.10.2020 17:10					
	Analyzed:	06.11.2020 00:27					
	Units/RL:	mg/kg	RL				
Benzene		<0.00198	0.00198				
Toluene		<0.00198	0.00198				
Ethylbenzene		<0.00198	0.00198				
m,p-Xylenes		<0.00396	0.00396				
o-Xylene		<0.00198	0.00198				
Total Xylenes		<0.00198	0.00198				
Total BTEX		<0.00198	0.00198				
Chloride by EPA 300	***Extracted:***	06.10.2020 17:38					
	Analyzed:	06.10.2020 21:17					
	Units/RL:	mg/kg	RL				
Chloride		25.6	9.96				
TPH by SW8015 Mod	***Extracted:***	06.10.2020 17:00					
	Analyzed:	06.10.2020 17:20					
	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				

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

Jessica Kramer
Project Manager

Analytical Report 664078

for

LT Environmental, Inc.

Project Manager: Dan Moir

Phantom Banks 25-25-30

012920072

06.12.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.12.2020

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

Reference: XENCO Report No(s): **664078**
Phantom Banks 25-25-30
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 664078. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 664078 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 664078

LT Environmental, Inc., Arvada, CO

Phantom Banks 25-25-30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	06.10.2020 10:45	2 ft	664078-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Phantom Banks 25-25-30

Project ID: *012920072*
Work Order Number(s): *664078*

Report Date: *06.12.2020*
Date Received: *06.10.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 664078

LT Environmental, Inc., Arvada, CO

Phantom Banks 25-25-30

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	06.10.2020 14:30
Lab Sample Id:	664078-001	Date Collected:	06.10.2020 10:45	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.10.2020 17:38	Basis:	Wet Weight
Seq Number:	3128599				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.6**	9.96	mg/kg	06.10.2020 21:17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.10.2020 17:00	Basis:	Wet Weight
Seq Number:	3128592				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	06.10.2020 17:20	
o-Terphenyl	84-15-1	92	%	70-135	06.10.2020 17:20	

Certificate of Analytical Results 664078

LT Environmental, Inc., Arvada, CO

Phantom Banks 25-25-30

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	06.10.2020 14:30
Lab Sample Id:	664078-001	Date Collected:	06.10.2020 10:45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.10.2020 17:10	Basis:	Wet Weight
Seq Number:	3128596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.11.2020 00:27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.11.2020 00:27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.11.2020 00:27	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	06.11.2020 00:27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.11.2020 00:27	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.11.2020 00:27	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.11.2020 00:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.11.2020 00:27	
1,4-Difluorobenzene	540-36-3	110	%	70-130	06.11.2020 00:27	

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

QC Summary 664078

LT Environmental, Inc.

Phantom Banks 25-25-30

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128599 — Matrix: Solid — Date Prep: 06.10.2020
MB Sample Id: 7705196-1-BLK — LCS Sample Id: 7705196-1-BKS — LCSD Sample Id: 7705196-1-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	252	101	255	102	90-110	1	20	mg/kg	06.10.2020 20:35	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128599 — Matrix: Soil — Date Prep: 06.10.2020
Parent Sample Id: 664077-001 — MS Sample Id: 664077-001 S — MSD Sample Id: 664077-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	282	201	475	96	475	96	90-110	0	20	mg/kg	06.10.2020 20:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128592 — Matrix: Solid — Date Prep: 06.10.2020
MB Sample Id: 7705214-1-BLK — LCS Sample Id: 7705214-1-BKS — LCSD Sample Id: 7705214-1-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	1070	107	1070	107	70-135	0	35	mg/kg	06.10.2020 12:50	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1140	114	70-135	0	35	mg/kg	06.10.2020 12:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		130		128		70-135	%	06.10.2020 12:50
o-Terphenyl	122		123		122		70-135	%	06.10.2020 12:50

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128592 — Matrix: Solid — Date Prep: 06.10.2020
MB Sample Id: 7705214-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.10.2020 12:30	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128592 — Matrix: Soil — Date Prep: 06.10.2020
Parent Sample Id: 664078-001 — MS Sample Id: 664078-001 S — MSD Sample Id: 664078-001 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	1060	105	974	97	70-135	8	35	mg/kg	06.10.2020 17:40	
Diesel Range Organics (DRO)	<50.3	1010	1170	116	1080	108	70-135	8	35	mg/kg	06.10.2020 17:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		114		70-135	%	06.10.2020 17:40
o-Terphenyl	106		102		70-135	%	06.10.2020 17:40

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

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

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

QC Summary 664078

LT Environmental, Inc.

Phantom Banks 25-25-30

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3128596 Matrix: Solid Date Prep: 06.10.2020

MB Sample Id: 7705213-1-BLK LCS Sample Id: 7705213-1-BKS LCSD Sample Id: 7705213-1-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	0.102	102	0.106	106	70-130	4	35	mg/kg	06.11.2020 07:56	
Toluene	<0.00200	0.100	0.0962	96	0.102	102	70-130	6	35	mg/kg	06.11.2020 07:56	
Ethylbenzene	<0.00200	0.100	0.0906	91	0.0958	96	71-129	6	35	mg/kg	06.11.2020 07:56	
m,p-Xylenes	<0.00400	0.200	0.185	93	0.198	99	70-135	7	35	mg/kg	06.11.2020 07:56	
o-Xylene	<0.00200	0.100	0.0954	95	0.101	101	71-133	6	35	mg/kg	06.11.2020 07:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		107		107		70-130	%	06.11.2020 07:56
4-Bromofluorobenzene	99		94		91		70-130	%	06.11.2020 07:56

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3128596 Matrix: Soil Date Prep: 06.10.2020

Parent Sample Id: 664078-001 MS Sample Id: 664078-001 S MSD Sample Id: 664078-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.112	112	0.117	116	70-130	4	35	mg/kg	06.10.2020 23:26	
Toluene	<0.00199	0.0996	0.103	103	0.109	108	70-130	6	35	mg/kg	06.10.2020 23:26	
Ethylbenzene	<0.00199	0.0996	0.0943	95	0.102	101	71-129	8	35	mg/kg	06.10.2020 23:26	
m,p-Xylenes	<0.00398	0.199	0.193	97	0.209	104	70-135	8	35	mg/kg	06.10.2020 23:26	
o-Xylene	<0.00199	0.0996	0.0992	100	0.107	106	71-133	8	35	mg/kg	06.10.2020 23:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		108		70-130	%	06.10.2020 23:26
4-Bromofluorobenzene	94		94		70-130	%	06.10.2020 23:26

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

Chain of Custody

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

Work Order No: 1e1e4078

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 Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Phantom Banks 25-25-30	Turn Around	
Project Number:	012920072	Routine	✓
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.2/2.0	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	6.10.20	1045	2	1	X	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/10/20 1430	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.10.2020 02.30.00 PM

Work Order #: 664078

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Sample received in bulk container.
#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: Elizabeth McClellan Date: 06.10.2020

Checklist reviewed by: Jessica Kramer Date: 06.11.2020

Jessica Kramer

Certificate of Analysis Summary 664082

LT Environmental, Inc., Arvada, CO

Project Name: Phantom Banks 25-25-30

Project Id: 012920072
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 06.10.2020 14:30
Report Date: 06.12.2020 08:36
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	664082-001					
	Field Id:	PH01A					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	06.10.2020 11:15					
BTEX by EPA 8021B	***Extracted:***	06.10.2020 17:10					
	Analyzed:	06.11.2020 01:08					
	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:***	06.10.2020 16:44					
	Analyzed:	06.10.2020 17:48					
	Units/RL:	mg/kg	RL				
Chloride		18.2	10.1				
TPH by SW8015 Mod	***Extracted:***	06.10.2020 17:00					
	Analyzed:	06.10.2020 17:20					
	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				

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

Jessica Kramer
Project Manager

Analytical Report 664082

for

LT Environmental, Inc.

Project Manager: Dan Moir

Phantom Banks 25-25-30

012920072

06.12.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.12.2020

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

Reference: XENCO Report No(s): **664082**
Phantom Banks 25-25-30
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 664082. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 664082 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 664082

LT Environmental, Inc., Arvada, CO

Phantom Banks 25-25-30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01A	S	06.10.2020 11:15	4 ft	664082-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Phantom Banks 25-25-30

Project ID: *012920072*
Work Order Number(s): *664082*

Report Date: *06.12.2020*
Date Received: *06.10.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 664082

LT Environmental, Inc., Arvada, CO

Phantom Banks 25-25-30

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	06.10.2020 14:30
Lab Sample Id:	664082-001	Date Collected:	06.10.2020 11:15	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.10.2020 16:44	Basis:	Wet Weight
Seq Number:	3128567				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.2**	10.1	mg/kg	06.11.2020 10:22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.10.2020 17:00	Basis:	Wet Weight
Seq Number:	3128604				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.10.2020 17:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	06.10.2020 17:20	
o-Terphenyl	84-15-1	75	%	70-135	06.10.2020 17:20	

Certificate of Analytical Results 664082

LT Environmental, Inc., Arvada, CO

Phantom Banks 25-25-30

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	06.10.2020 14:30
Lab Sample Id:	664082-001	Date Collected:	06.10.2020 11:15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.10.2020 17:10	Basis:	Wet Weight
Seq Number:	3128596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.11.2020 01:08	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.11.2020 01:08	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.11.2020 01:08	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.11.2020 01:08	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.11.2020 01:08	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.11.2020 01:08	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.11.2020 01:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.11.2020 01:08	
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.11.2020 01:08	

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

QC Summary 664082

LT Environmental, Inc.

Phantom Banks 25-25-30

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128567 — Matrix: Solid — Date Prep: 06.10.2020
MB Sample Id: 7705194-1-BLK — LCS Sample Id: 7705194-1-BKS — LCSD Sample Id: 7705194-1-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	252	101	254	102	90-110	1	20	mg/kg	06.10.2020 15:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128567 — Matrix: Soil — Date Prep: 06.10.2020
Parent Sample Id: 663990-001 — MS Sample Id: 663990-001 S — MSD Sample Id: 663990-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2020	201	2200	90	2200	89	90-110	0	20	mg/kg	06.10.2020 15:45	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128567 — Matrix: Soil — Date Prep: 06.10.2020
Parent Sample Id: 664083-007 — MS Sample Id: 664083-007 S — MSD Sample Id: 664083-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2650	202	2840	94	2840	94	90-110	0	20	mg/kg	06.10.2020 18:44	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128604 — Matrix: Solid — Date Prep: 06.10.2020
MB Sample Id: 7705215-1-BLK — LCS Sample Id: 7705215-1-BKS — LCSD Sample Id: 7705215-1-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	969	97	963	96	70-135	1	35	mg/kg	06.10.2020 12:50	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1040	104	70-135	2	35	mg/kg	06.10.2020 12:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		106		103		70-135	%	06.10.2020 12:50
o-Terphenyl	93		97		97		70-135	%	06.10.2020 12:50

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128604 — Matrix: Solid — Date Prep: 06.10.2020
MB Sample Id: 7705215-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.10.2020 12:30	

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

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

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

Final 1.000

QC Summary 664082

LT Environmental, Inc.

Phantom Banks 25-25-30

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3128604 Matrix: Soil Date Prep: 06.10.2020
Parent Sample Id: 664082-001 MS Sample Id: 664082-001 S MSD Sample Id: 664082-001 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)	<50.1	1000	923	92	950	95	70-135	3	35	mg/kg	06.10.2020 17:40	
Diesel Range Organics (DRO)	<50.1	1000	993	99	1030	103	70-135	4	35	mg/kg	06.10.2020 17:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		95		70-135	%	06.10.2020 17:40
o-Terphenyl	80		83		70-135	%	06.10.2020 17:40

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3128596 Matrix: Solid Date Prep: 06.10.2020
MB Sample Id: 7705213-1-BLK LCS Sample Id: 7705213-1-BKS LCSD Sample Id: 7705213-1-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	0.102	102	0.106	106	70-130	4	35	mg/kg	06.11.2020 07:56	
Toluene	<0.00200	0.100	0.0962	96	0.102	102	70-130	6	35	mg/kg	06.11.2020 07:56	
Ethylbenzene	<0.00200	0.100	0.0906	91	0.0958	96	71-129	6	35	mg/kg	06.11.2020 07:56	
m,p-Xylenes	<0.00400	0.200	0.185	93	0.198	99	70-135	7	35	mg/kg	06.11.2020 07:56	
o-Xylene	<0.00200	0.100	0.0954	95	0.101	101	71-133	6	35	mg/kg	06.11.2020 07:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		107		107		70-130	%	06.11.2020 07:56
4-Bromofluorobenzene	99		94		91		70-130	%	06.11.2020 07:56

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3128596 Matrix: Soil Date Prep: 06.10.2020
Parent Sample Id: 664078-001 MS Sample Id: 664078-001 S MSD Sample Id: 664078-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.112	112	0.117	116	70-130	4	35	mg/kg	06.10.2020 23:26	
Toluene	<0.00199	0.0996	0.103	103	0.109	108	70-130	6	35	mg/kg	06.10.2020 23:26	
Ethylbenzene	<0.00199	0.0996	0.0943	95	0.102	101	71-129	8	35	mg/kg	06.10.2020 23:26	
m,p-Xylenes	<0.00398	0.199	0.193	97	0.209	104	70-135	8	35	mg/kg	06.10.2020 23:26	
o-Xylene	<0.00199	0.0996	0.0992	100	0.107	106	71-133	8	35	mg/kg	06.10.2020 23:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		108		70-130	%	06.10.2020 23:26
4-Bromofluorobenzene	94		94		70-130	%	06.10.2020 23:26

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

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

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

Chain of Custody

Work Order No: 1e1e4082

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Phantom Banks 25-25-30	Turn Around	
Project Number:	012926072	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)	
Temperature (°C):	2.2/2.0	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01A	S	6.10.20	1115	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/10/20 1430	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.10.2020 02.30.00 PM

Work Order #: 664082

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Sample received in bulk container.
#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: Elizabeth McClellan Date: 06.10.2020

Checklist reviewed by: Jessica Kramer Date: 06.11.2020

Jessica Kramer

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1625 N. French Dr., Hobbs, NM 88240
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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 30629

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 30629
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests to complete final remediation of soil sample locations BH01, BH02, and BH3 during any future major deconstruction/alteration and/or abandonment, whichever occurs first. At this time, OCD approves the request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue. This is a Federal site and will require like approval from BLM.	9/8/2021