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	NAPP2104348535
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@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.21005 Longitude -103.84237
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 13 DTD 121H	Site Type Well Pad
Date Release Discovered 2/05/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
D	24	24S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	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) Frac Fluid	Volume/Weight Released (provide units) 5 BBLS	Volume/Weight Recovered (provide units) 5 BBLS

Cause of Release: During frac operations, a loose retainer nut caused frac fluid to spill into impermeable containment. All fluids were recovered. A 48-hour advance liner inspection notice was sent to NMOCD District 2. Liner was inspected and determined not to be operating as designed. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2104348535
District RP	
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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? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

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.

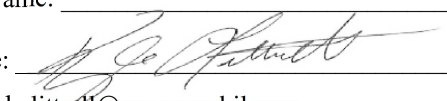
If all the actions described above have not been undertaken, explain why:

NA

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

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature:  Date: 2-12-21

email: kyle.littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: Date:

Location:	PLU 13 DTD 121H	
Spill Date:	2/5/2021	
Area 1		
Approximate Area =	28.07	cu. ft.
VOLUME OF LEAK		
Total Frac Fluid =	5.00	bbls

TOTAL VOLUME OF LEAK		
Total Frac Fluid =	**5.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Frac Fluid =	**5.00**	**bbls**

Incident ID	NAPP2104348535
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?	>110 (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	NAPP2104348535
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: 4/30/2021

email: kyle.littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: Date:

Incident ID	NAPP2104348535
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 4/30/2021

email: kyle.littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2104348535
District RP	
Facility ID	
Application ID	

Closure

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

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☒ Description of remediation activities

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Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 4/30/2021

email: kyle.littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: Robert Hamlet Date: 11/10/2021

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

Closure Approved by: Robert Hamlet Date: 11/10/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

April 30, 2021

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

RE: Closure Request
PLU 13 DTD 121H
Incident Number NAPP2104348535
Eddy County, New Mexico

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, soil sampling, and excavation activities at the Poker Lake Unit (PLU) 13 DTD 121H (Site) in Unit D, Section 24, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following a release of frac fluid at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting no further action (NFA) for Incident Number NAPP2104348535.

RELEASE BACKGROUND

On February 5, 2021, a loose retainer nut caused frac fluid to be released. Approximately 5 barrels (bbls) of frac fluid were released into a temporary, lined containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of frac fluid were recovered from the lined containment. A 48-hour advance notice of liner inspection was provided via email to New Mexico Oil Conservation Division (NMOCD) District II office. A liner integrity inspection was conducted by XTO personnel following the fluid recovery and upon inspection, the liner was determined to be insufficient. XTO reported the release to the NMOCD on a Form C-141 on February 12, 2021. The release was assigned Incident Number NAPP2104348535.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During November 2020, WSP installed a soil boring (C-4483) within 0.5 miles of the Site utilizing a truck-

mounted hollow-stem auger rig. Soil boring C-4483 was drilled to a depth of 110 feet bgs. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The location of the borehole is approximately 0.5 miles east of the Site and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The well record and log are included in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 1,795 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On March 10, 2021, WSP personnel visited the Site to evaluate the release based on information provided on the Form C-141 and visual observations. The temporary containment had been removed at the time of the Site visit and visible surface staining was observed in the release area. WSP personnel collected one preliminary assessment soil sample (SS01) at the documented location of the tear in the liner from a depth of approximately 0.5 feet bgs to assess the extent of the impacted soil. The preliminary soil sample was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample location were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Laboratory analytical results for preliminary soil sample SS01 indicated that chloride concentrations exceeded the Closure Criteria. Benzene, BTEX, TPH-GRO/TPH-DRO, and TPH concentrations were compliant with the Closure Criteria. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil sample, delineation and excavation activities were warranted.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On March 29, 2021, WSP personnel were at the Site to oversee site assessment and excavation activities. One pothole (PH01) was advanced via backhoe within the release extent to assess the vertical extent of impacted soil. PH01 was advanced to a depth of 4 feet bgs. Soil from the pothole was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. Delineation soil samples were collected at depths of 2 feet and 4 feet bgs. Field screening results and observations for the pothole were logged on a lithologic/soil sampling log, which is included in Attachment 2. The pothole soil sample location is depicted on Figure 3.

Following delineation activities, impacted soil was excavated from the release area as indicated by visible staining, field screening results from pothole PH01, and laboratory analytical results for the preliminary soil sample. Excavation activities were performed using a track-mounted backhoe. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation was completed to depths ranging from 1-foot to 2.5 feet bgs.

Following removal of impacted soil, WSP collected 5-point composite soil samples at least every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 and FS02 were collected from the floor of the excavation from depths ranging from 1-foot to 2.5 feet bgs. Composite soil sample SW01 was collected from the sidewalls of the deeper southern portion of the excavation. Due to the shallow depth of the northern portion of the excavation, floor sample FS01 included soil from any sidewalls. The delineation and excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The

excavation extent and excavation soil sample locations are presented on Figure 4. Photographic documentation is included in Attachment 3.

The excavation area measured approximately 344 square feet. A total of approximately 30 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was secured with fencing.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil sample SS01 indicated that chloride concentrations exceeded Closure Criteria. Benzene, BTEX, TPH-GRO/TPH-DRO, and TPH were compliant with the Closure Criteria.

Laboratory analytical results for pothole delineation soil samples PH01 and PH01A indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, delineation soil sample PH01A, collected at 4 feet bgs, provided vertical delineation to the strictest Table 1 Closure Criteria.

Impacted soil was excavated from the release area. Laboratory analytical results for excavation sidewall sample SW01 and excavation floor samples FS01 and FS02 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the February 5, 2021 release of frac fluid into a temporary lined containment. Laboratory analytical results for excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Initial response efforts which included removal of freestanding fluids via hydrovac and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. WSP and XTO believe these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests no further action for Incident Number NAPP2104348535.

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

Sincerely,

WSP USA Inc.

Jeremy Hill
Assistant Consultant, Environmental Scientist

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

cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Figure 4	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Records
Attachment 2	Lithologic/Sampling Log
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES

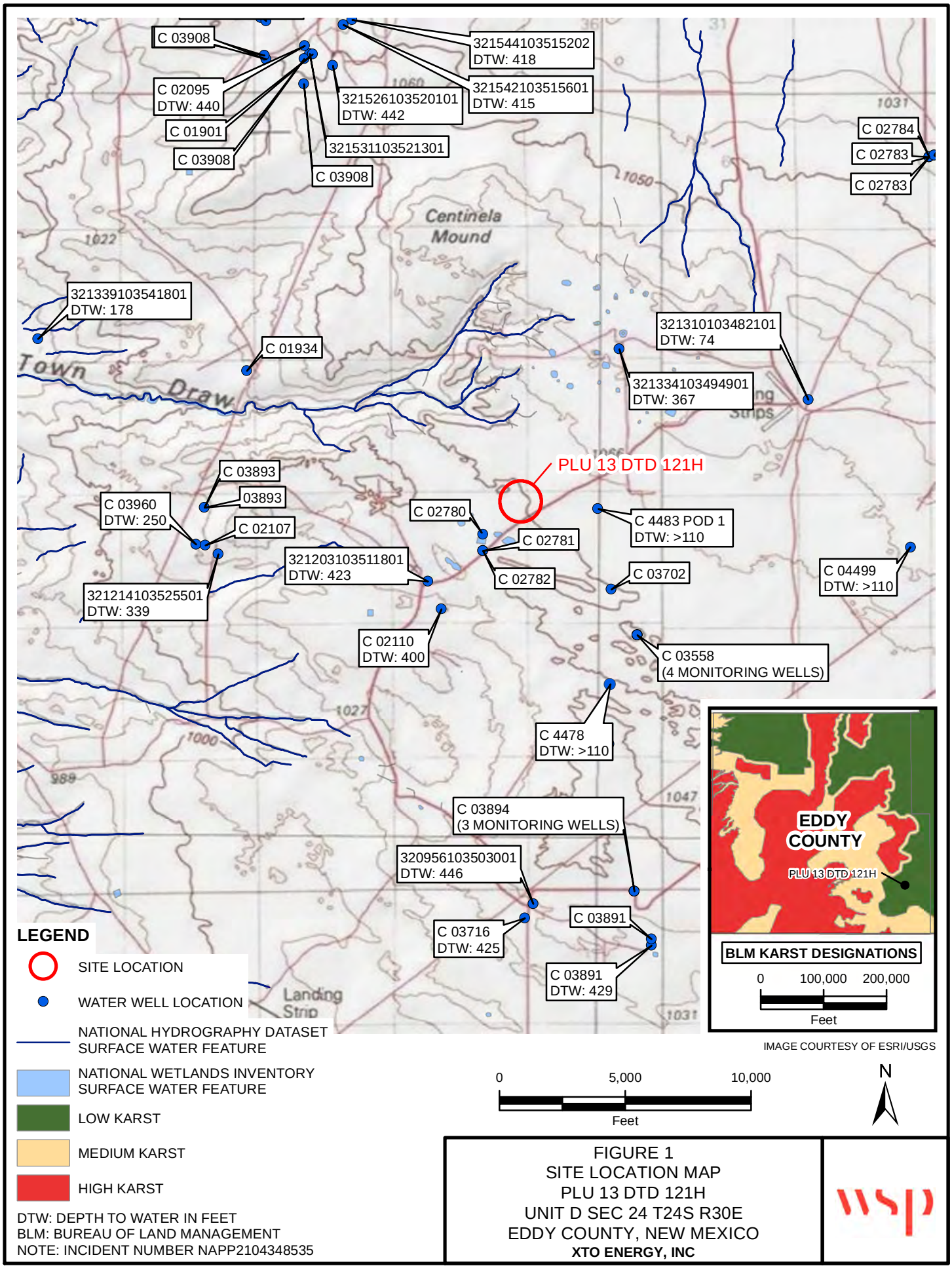


FIGURE 1
SITE LOCATION MAP
PLU 13 DTD 121H
UNIT D SEC 24 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\012921031_POKER LAKE UNIT 13 DTD 121H_122H\012921031_FIG01_SL_RECEPTOR_2021.mxd

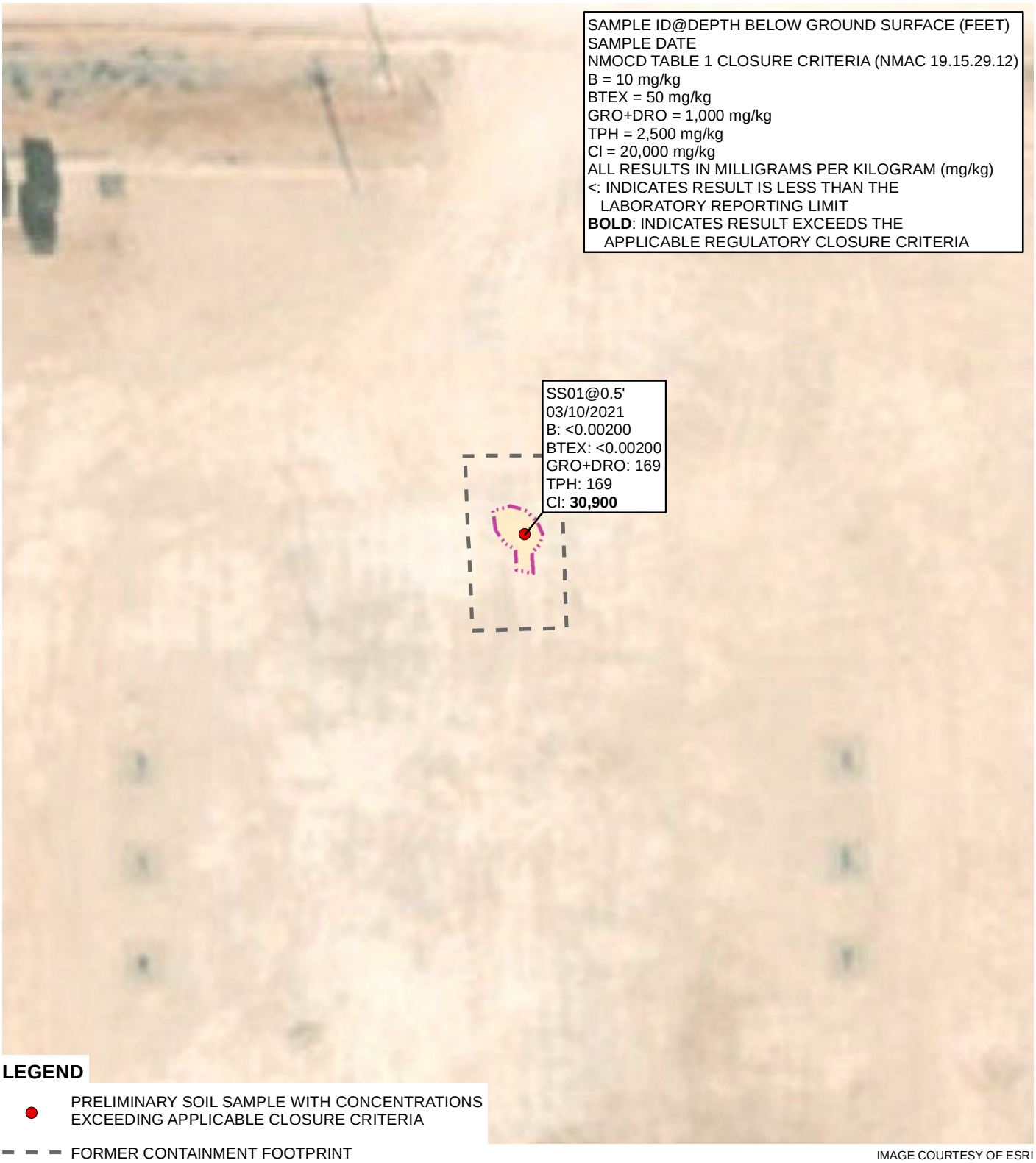


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU 13 DTD 121H
UNIT D SEC 24 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921031_POKER LAKE UNIT 13 DTD 121H_122H\012921031_FIG02_PRELIMINARY_2021_1.mxd

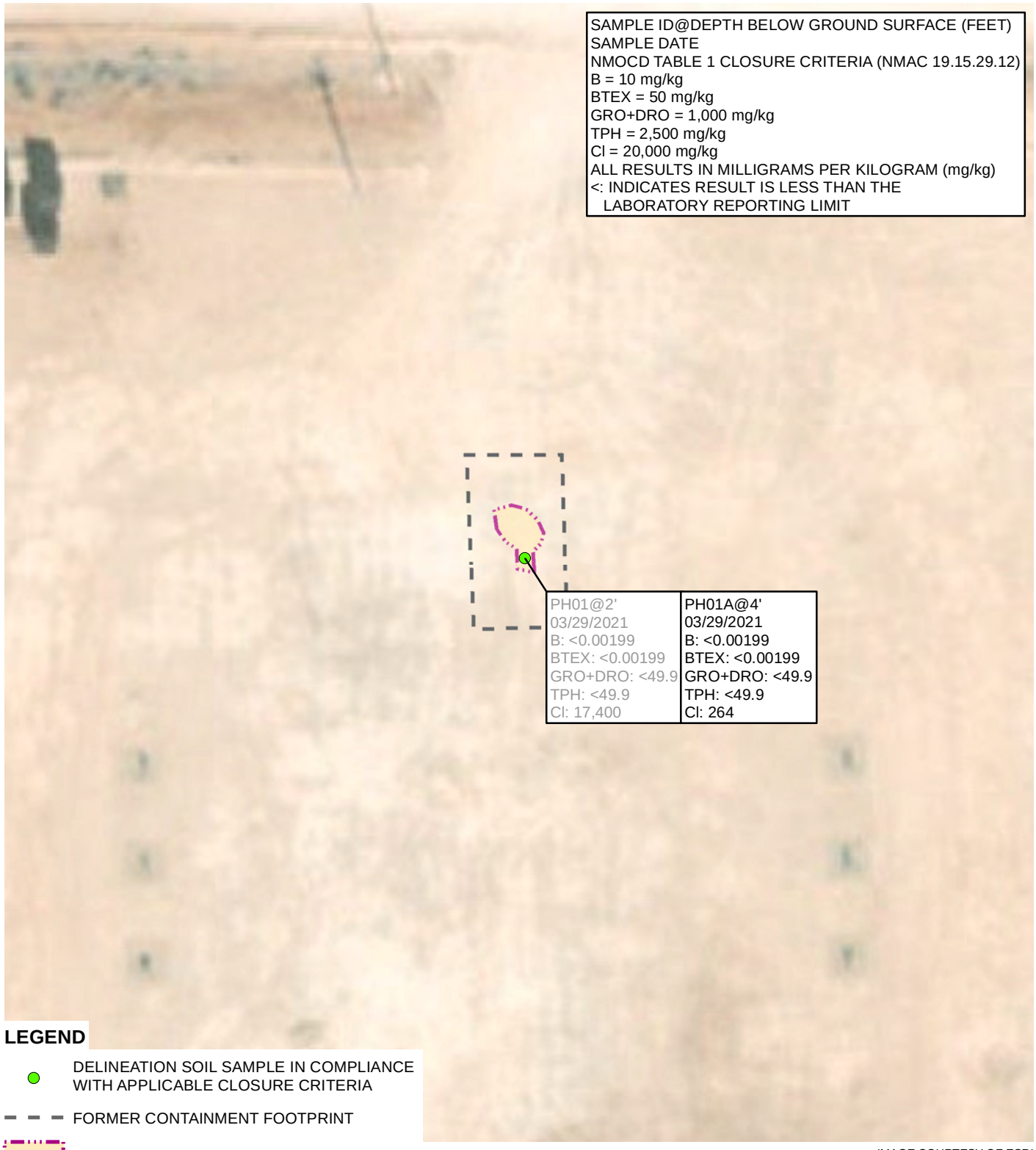
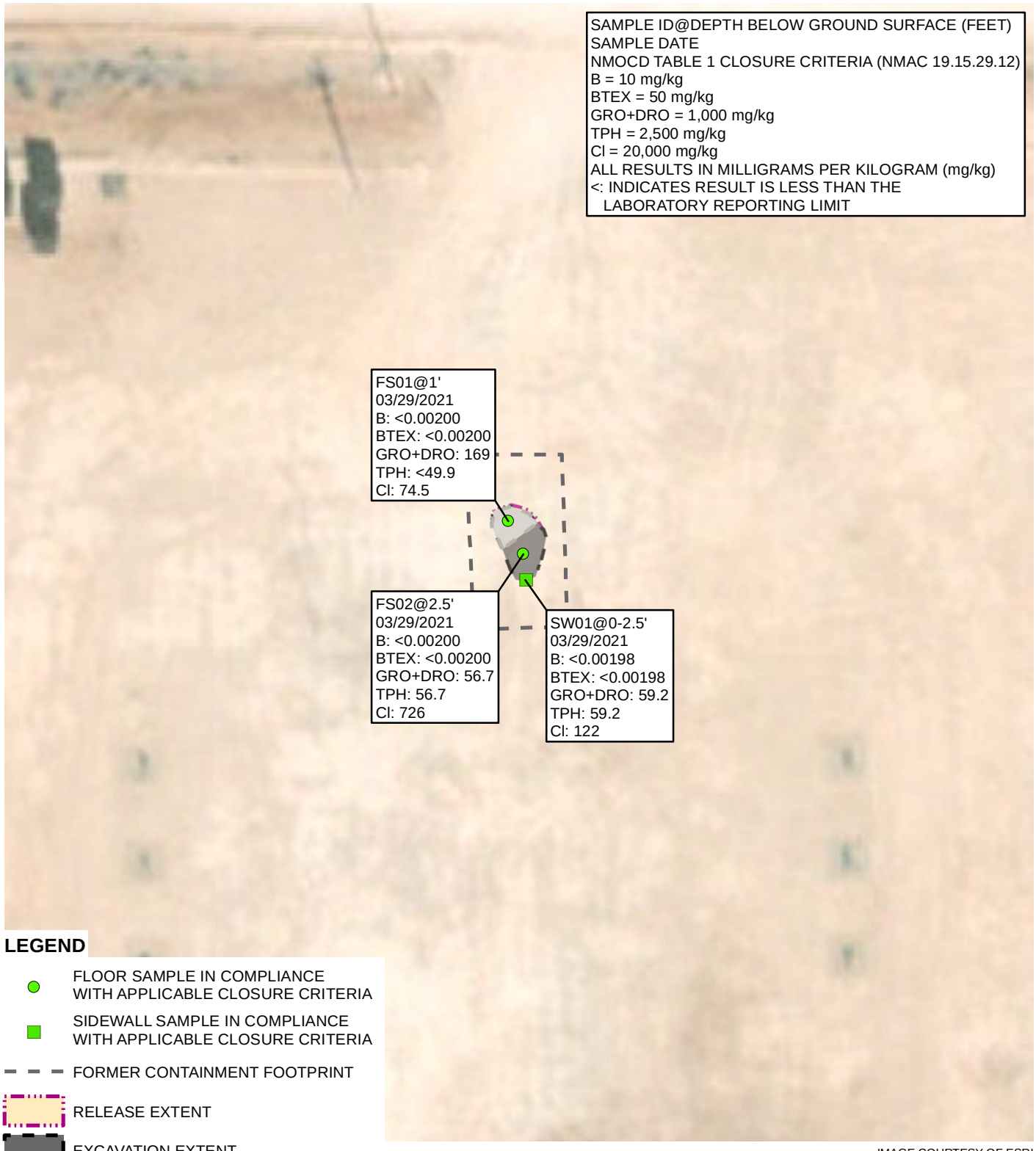


FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
PLU 13 DTD 121H
UNIT D SEC 24 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921031_POKER LAKE UNIT 13 DTD 121H_122H\012921031_FIG03_DELINEATION_2021.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: INCIDENT NUMBER NAPP2104348535

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
PLU 13 DTD 121H
UNIT D SEC 24 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921031_POKER LAKE UNIT 13 DTD 121H_122H\012921031_FIG04_EXCAVATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
PLU 13 DTD 121H
Incident Number NAPP2104348535
XTO Energy, Inc
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Surface Samples										
SS01	03/10/2021	0.5	<0.00200	<0.00200	169	<50.0	<50.0	169	169	**30,900**
Delineation Samples										
PH01	03/29/2021	2	<0.00199	<0.00199	169	<49.9	<49.9	<49.9	<49.9	17,400
PH01A	03/29/2021	4	<0.00199	<0.00199	169	<49.9	<49.9	<49.9	<49.9	264
Excavation Floor Samples										
FS01	03/29/2021	1	<0.00200	<0.00200	<49.9	<49.9	<50.0	169	<49.9	74.5
FS02	03/29/2021	2.5	<0.00200	<0.00200	<49.9	56.7	<50.0	56.7	56.7	726
Excavation Sidewall Samples										
SW01	03/29/2021	0 - 2.5	<0.00198	<0.00198	<49.8	59.2	<50.0	59.2	59.2	122

Notes

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - 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: REFERENCED WELL RECORDS

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT DEC 17 2020 PM 1:55

APPLICATION COPY

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4483

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	12'	31.77"	N
	LONGITUDE	-104°	50'	0.72"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NW NW NE Sec. 24 T24S R30E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
11/24/2020	11/24/2020	temporary well material	110	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	110	±8.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

OSE DII DEC 17 2020 PM 1:55

APPLICATION COPY

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	24	24	Sand, Fine-grained,poorly-graded, with caliche, Tan-Off-White	Y ✓ N	
24	34	10	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Tan-Off-White	Y ✓ N	
34	51	17	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Light Brown	Y ✓ N	
51	54	3	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Light Brown-Brown	Y ✓ N	
54	76	22	Sand, Fine-grained,poorly-graded, Brown, dry	Y ✓ N	
76	101	25	Sand, Fine-grained,poorly-graded, Light-Brown, dry	Y ✓ N	
101	110	9	Sand, Fine-grained,poorly-graded, with gravel, Light-Brown, dry-moist	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from LTE on-site geologist.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 12/14/20

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH01	Date: 3/29/2021
Site Name:	PLU 13 DTD 121H/122H
RP or Incident Number:	NAPP2104348535
WSP Job Number:	TE012921031

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: J. Hill	Method: Back Hoe		
Lat/Long: 32.21044, -103.842240	Field Screening: Hatch Chloride Strips, PID	Hole Diameter: 1.5'	Total Depth: 4.0'

Comments:
TD at 4 feet

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0.0		
M	9,804	0.6	N			1.0	SC	Fine clayey sand. Compact. Red. Low Plasticity, Organic Traces, No Odor.
M	21,292	0.4	N	PH01	2.0	2.0	SC	Fine clayey sand with trace CCHE. Compact. Red. Low Plasticity, Organic Traces, No Odor.
M	3,520	0.0	N			3.0	CCHE	Caliche with some trace SC. Moderately consolidated. Pink No Plasticity, Organic Traces, No Odor.
D	224	0.0	N	PH01A	4.0	4.0	CCHE	Caliche. Highly consolidated. Pink/Tan No Plasticity, Organic Traces, No Odor.

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 13 DTD 121H Eddy County, NM	TE012921031

Photo No.	Date
1	March 10, 2021

View of release area to the southeast.

Photo No.	Date
2	March 10, 2021

View of SS01 location to the east.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 13 DTD 121H Eddy County, NM	TE012921031

Photo No.	Date
3	March 29, 2021

Excavation view to the north

Photo No.	Date
4	March 29, 2021

Excavation view to the west

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-327-1
Laboratory Sample Delivery Group: TE012921031
Client Project/Site: PLU 13 DTD 121H

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

Attn: Dan Moir

JKramer

Authorized for release by:
3/22/2021 7:04:49 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: PLU 13 DTD 121H

Laboratory Job ID: 890-327-1
SDG: TE012921031

Table of Contents

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-327-1
Project/Site: PLU 13 DTD 121H SDG: TE012921031

Qualifiers

Subcontract

Qualifier	Qualifier Description
U	Analyte was 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: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Job ID: 890-327-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-327-1

Receipt
The sample was received on 3/11/2021 12:11 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SS01 (890-327-1).

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Client Sample ID: SS01
Date Collected: 03/10/21 10:15
Date Received: 03/11/21 12:11

Lab Sample ID: 890-327-1
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/19/21 16:40	03/21/21 16:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/19/21 16:40	03/21/21 16:16	1
m,p-Xylenes	<0.00400	U	0.00400		mg/kg		03/19/21 16:40	03/21/21 16:16	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/19/21 16:40	03/21/21 16:16	1
Toluene	<0.00200	U	0.00200		mg/kg		03/19/21 16:40	03/21/21 16:16	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/19/21 16:40	03/21/21 16:16	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/19/21 16:40	03/21/21 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*92*		*70 - 130*	*03/19/21 16:40*	*03/21/21 16:16*	*1*
4-Bromofluorobenzene	*114*		*70 - 130*	*03/19/21 16:40*	*03/21/21 16:16*	*1*

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30900**		250		mg/kg		03/18/21 22:00	03/19/21 09:49	50

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	**169**		50.0		mg/kg		03/17/21 15:00	03/17/21 22:45	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/17/21 15:00	03/17/21 22:45	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/17/21 15:00	03/17/21 22:45	1
Total TPH	**169**		50.0		mg/kg		03/17/21 15:00	03/17/21 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 135*	*03/17/21 15:00*	*03/17/21 22:45*	*1*
o-Terphenyl	*91*		*70 - 135*	*03/17/21 15:00*	*03/17/21 22:45*	*1*

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Method: BTEX 8021 - General Subcontract Method

Matrix: SOIL

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
7723715-1-BKS	Lab Control Sample	104
7723715-1-BLK	Method Blank	111
7723715-1-BSD	Lab Control Sample Dup	103

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: BTEX 8021 - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-327-1	SS01	114	92

Surrogate Legend

BFB = 4-Bromofluorobenzene
DFBZ = 1,4-Difluorobenzene

Method: TPH 8015_NM_MOD - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-327-1	SS01	91	91

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Method: BTEX 8021 - General Subcontract Method

Lab Sample ID: 7723715-1-BLK
Matrix: SOIL
Analysis Batch: 3154335

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3154335_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/19/21 16:40	03/20/21 16:20	1
Ethylbenzene	<.002	U	.002		mg/kg		03/19/21 16:40	03/20/21 16:20	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/19/21 16:40	03/20/21 16:20	1
o-Xylene	<.002	U	.002		mg/kg		03/19/21 16:40	03/20/21 16:20	1
Toluene	<.002	U	.002		mg/kg		03/19/21 16:40	03/20/21 16:20	1

Surrogate	*BLANK %Recovery*	*BLANK Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*70 - 130*	*03/19/21 16:40*	*03/20/21 16:20*	*1*

Lab Sample ID: 7723715-1-BKS
Matrix: SOIL
Analysis Batch: 3154335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3154335_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	.1	0.0986		mg/kg		99	70 - 130
Ethylbenzene	.1	0.0967		mg/kg		97	71 - 129
m,p-Xylenes	.2	0.191		mg/kg		96	70 - 135
o-Xylene	.1	0.0956		mg/kg		96	71 - 133
Toluene	.1	0.0974		mg/kg		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 130*

Lab Sample ID: 7723715-1-BSD
Matrix: SOIL
Analysis Batch: 3154335

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3154335_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	.1	0.0945		mg/kg		95	70 - 130	4	35
Ethylbenzene	.1	0.0933		mg/kg		93	71 - 129	4	35
m,p-Xylenes	.2	0.187		mg/kg		94	70 - 135	2	35
o-Xylene	.1	0.0931		mg/kg		93	71 - 133	3	35
Toluene	.1	0.0952		mg/kg		95	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*

Method: TPH 8015_NM_MOD - General Subcontract Method

Lab Sample ID: 7723573-1-BLK
Matrix: SOIL
Analysis Batch: 3154031

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3154031_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/17/21 15:00	03/17/21 21:43	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/17/21 15:00	03/17/21 21:43	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/17/21 15:00	03/17/21 21:43	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Method: TPH 8015_NM_MOD - General Subcontract Method (Continued)

Lab Sample ID: 7723573-1-BKS
Matrix: SOIL
Analysis Batch: 3154031

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3154031_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO)			1000	1000		mg/kg		100	70 - 135		
Gasoline Range Hydrocarbons (GRO)			1000	985		mg/kg		99	70 - 135		

Lab Sample ID: 7723573-1-BSD
Matrix: SOIL
Analysis Batch: 3154031

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3154031_P

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)			1000	991		mg/kg		99	70 - 135	1	20
Gasoline Range Hydrocarbons (GRO)			1000	970		mg/kg		97	70 - 135	2	20

Lab Sample ID: 691551-001 S
Matrix: SOIL
Analysis Batch: 3154031

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3154031_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO)	169		998	953		mg/kg		79	70 - 135		
Gasoline Range Hydrocarbons (GRO)	<49.9		998	843		mg/kg		84	70 - 135		

Lab Sample ID: 691551-001 SD
Matrix: SOIL
Analysis Batch: 3154031

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3154031_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	169		997	951		mg/kg		78	70 - 135	0	20
Gasoline Range Hydrocarbons (GRO)	<49.9		997	853		mg/kg		86	70 - 135	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Subcontract

Analysis Batch: 3154031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-327-1	SS01	Total/NA	Solid	TPH 8015_NM_MOD	3154031_P
7723573-1-BLK	Method Blank	Total/NA	SOIL	TPH 8015_NM_MOD	3154031_P
7723573-1-BKS	Lab Control Sample	Total/NA	SOIL	TPH 8015_NM_MOD	3154031_P
7723573-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	TPH 8015_NM_MOD	3154031_P
691551-001 S	Matrix Spike	Total/NA	SOIL	TPH 8015_NM_MOD	3154031_P
691551-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	TPH 8015_NM_MOD	3154031_P

Analysis Batch: 3154287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-327-1	SS01	Total/NA	Solid	CHLORIDE E300	3154287_P

Analysis Batch: 3154335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-327-1	SS01	Total/NA	Solid	BTEX 8021	3154335_P
7723715-1-BLK	Method Blank	Total/NA	SOIL	BTEX 8021	3154335_P
7723715-1-BKS	Lab Control Sample	Total/NA	SOIL	BTEX 8021	3154335_P
7723715-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	BTEX 8021	3154335_P

Prep Batch: 3154031_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-327-1	SS01	Total/NA	Solid	SW8015P	
7723573-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723573-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723573-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691551-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691551-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3154287_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-327-1	SS01	Total/NA	Solid	E300P	

Prep Batch: 3154335_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-327-1	SS01	Total/NA	Solid	SW5035A	
7723715-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723715-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723715-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Method	Method Description	Protocol	Laboratory
Subcontract	BTEX 8021	None	XM
Subcontract	CHLORIDE E300	None	XM
Subcontract	TPH 8015_NM_MOD	None	XM

Protocol References:

None = None

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H

Job ID: 890-327-1
SDG: TE012921031

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-327-1	SS01	Solid	03/10/21 10:15	03/11/21 12:11	

Chain of Custody

XENCO LABORATORIES

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Work Order No: _____

3/22/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA INC.	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) 894-5641 Email:	jhernandez@ltenv.com abyers@ltenv.com tcasey@ltenv.com a	

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:	PLU 13 DTD 121H	Turn Around	
Project Number:	TE01292103 1	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	4.8/4.6	Thermometer ID		
Received Intact:	(Yes) No		INM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1	

ANALYSIS REQUEST

890-327 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	3-10-21	1015	0-5'	1	✓	✓	✓	composite

Work Order Notes

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		3.11.21 1211	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018 1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-327-1
SDG Number: TE012921031

Login Number: 327
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-448-1
Laboratory Sample Delivery Group: TE012921031
Client Project/Site: PLU 13 DTD 121H/122H

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

Attn: Dan Moir

Authorized for release by:
4/7/2021 3:51:55 PM

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

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Laboratory Job ID: 890-448-1
SDG: TE012921031

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-448-1
Project/Site: PLU 13 DTD 121H/122H SDG: TE012921031

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: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Job ID: 890-448-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-448-1

Receipt
The samples were received on 3/29/2021 4:04 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 1.6°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH01 (890-448-1), PH01 A (890-448-2), FS01 (890-448-3), FS02 (890-448-4) and SW01 (890-448-5).

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Client Sample ID: PH01

Date Collected: 03/29/21 10:31
Date Received: 03/29/21 16:04
Sample Depth: - 2

Lab Sample ID: 890-448-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/02/21 14:30	04/05/21 17:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/02/21 14:30	04/05/21 17:12	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*04/02/21 14:30*	*04/05/21 17:12*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*04/02/21 14:30*	*04/05/21 17:12*	*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	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/04/21 23:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/04/21 23:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/04/21 23:45	1
Total TPH	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/04/21 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*04/03/21 13:41*	*04/04/21 23:45*	*1*
o-Terphenyl	*111*		*70 - 130*	*04/03/21 13:41*	*04/04/21 23:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17400**		253		mg/Kg			04/02/21 20:59	50

Client Sample ID: PH01 A

Date Collected: 03/29/21 10:48
Date Received: 03/29/21 16:04
Sample Depth: - 4

Lab Sample ID: 890-448-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/02/21 14:30	04/05/21 17:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/02/21 14:30	04/05/21 17:32	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/02/21 14:30	04/05/21 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*04/02/21 14:30*	*04/05/21 17:32*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/02/21 14:30*	*04/05/21 17:32*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Client Sample ID: PH01 A

Date Collected: 03/29/21 10:48
Date Received: 03/29/21 16:04
Sample Depth: - 4

Lab Sample ID: 890-448-2
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		04/03/21 13:41	04/05/21 00:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/05/21 00:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/05/21 00:48	1
Total TPH	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/05/21 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/03/21 13:41*	*04/05/21 00:48*	*1*
o-Terphenyl	*118*		*70 - 130*	*04/03/21 13:41*	*04/05/21 00:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**264**		5.05		mg/Kg			04/02/21 21:05	1

Client Sample ID: FS01

Date Collected: 03/29/21 13:11
Date Received: 03/29/21 16:04
Sample Depth: - 1

Lab Sample ID: 890-448-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 17:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 17:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 17:52	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/02/21 14:30	04/05/21 17:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 17:52	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/02/21 14:30	04/05/21 17:52	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/02/21 14:30*	*04/05/21 17:52*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*04/02/21 14:30*	*04/05/21 17:52*	*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	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/05/21 01:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/05/21 01:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/05/21 01:09	1
Total TPH	<49.9	U	49.9		mg/Kg		04/03/21 13:41	04/05/21 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*04/03/21 13:41*	*04/05/21 01:09*	*1*
o-Terphenyl	*116*		*70 - 130*	*04/03/21 13:41*	*04/05/21 01:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74.5**		4.96		mg/Kg			04/02/21 21:10	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Client Sample ID: FS02

Lab Sample ID: 890-448-4
Matrix: Solid
Date Collected: 03/29/21 13:15
Date Received: 03/29/21 16:04
Sample Depth: - 2.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 19:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 19:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 19:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/02/21 14:30	04/05/21 19:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 19:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/02/21 14:30	04/05/21 19:43	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*04/02/21 14:30*	*04/05/21 19:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/02/21 14:30*	*04/05/21 19:43*	*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	**56.7**		49.9		mg/Kg		04/01/21 14:29	04/03/21 00:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/01/21 14:29	04/03/21 00:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/01/21 14:29	04/03/21 00:22	1
Total TPH	**56.7**		49.9		mg/Kg		04/01/21 14:29	04/03/21 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*04/01/21 14:29*	*04/03/21 00:22*	*1*
o-Terphenyl	*102*		*70 - 130*	*04/01/21 14:29*	*04/03/21 00:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**726**		4.99		mg/Kg			04/02/21 21:16	1

Client Sample ID: SW01

Lab Sample ID: 890-448-5
Matrix: Solid
Date Collected: 03/29/21 13:21
Date Received: 03/29/21 16:04
Sample Depth: 0 - 2.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/02/21 14:30	04/05/21 20:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/02/21 14:30	04/05/21 20:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/02/21 14:30	04/05/21 20:04	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/02/21 14:30	04/05/21 20:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/02/21 14:30	04/05/21 20:04	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/02/21 14:30	04/05/21 20:04	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/02/21 14:30	04/05/21 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*04/02/21 14:30*	*04/05/21 20:04*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/02/21 14:30*	*04/05/21 20:04*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Client Sample ID: SW01

Date Collected: 03/29/21 13:21
Date Received: 03/29/21 16:04
Sample Depth: 0 - 2.5

Lab Sample ID: 890-448-5

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	**59.2**		49.8		mg/Kg		04/01/21 14:29	04/03/21 00:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/01/21 14:29	04/03/21 00:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/01/21 14:29	04/03/21 00:44	1
Total TPH	**59.2**		49.8		mg/Kg		04/01/21 14:29	04/03/21 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*04/01/21 14:29*	*04/03/21 00:44*	*1*
o-Terphenyl	*101*		*70 - 130*	*04/01/21 14:29*	*04/03/21 00:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**122**		4.97		mg/Kg			04/02/21 21:22	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-448-1	PH01	117	102
890-448-2	PH01 A	117	103
890-448-3	FS01	116	101
890-448-4	FS02	112	103
890-448-5	SW01	112	100
LCS 880-1256/1-A	Lab Control Sample	102	101
LCSD 880-1256/2-A	Lab Control Sample Dup	103	101
MB 880-1256/5-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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-448-1	PH01	108	111
890-448-1 MS	PH01	113	106
890-448-1 MSD	PH01	111	105
890-448-2	PH01 A	111	118
890-448-3	FS01	112	116
890-448-4	FS02	91	102
890-448-5	SW01	91	101
LCS 880-1198/2-A	Lab Control Sample	102	94
LCS 880-1283/2-A	Lab Control Sample	121	116
LCSD 880-1198/3-A	Lab Control Sample Dup	100	88
LCSD 880-1283/3-A	Lab Control Sample Dup	117	113
MB 880-1198/1-A	Method Blank	88	92
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: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1256/5-A
Matrix: Solid
Analysis Batch: 1306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1256

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 14:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 14:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 14:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/02/21 14:30	04/05/21 14:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 14:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/02/21 14:30	04/05/21 14:20	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/02/21 14:30	04/05/21 14:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/02/21 14:30*	*04/05/21 14:20*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/02/21 14:30*	*04/05/21 14:20*	*1*

Lab Sample ID: LCS 880-1256/1-A
Matrix: Solid
Analysis Batch: 1306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1256

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1027		mg/Kg		103	70 - 130		
Toluene			0.100	0.1041		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1121		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2265		mg/Kg		113	70 - 130		
o-Xylene			0.100	0.1107		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-1256/2-A
Matrix: Solid
Analysis Batch: 1306

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1256

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09930		mg/Kg		99	70 - 130	3	35
Toluene			0.100	0.1040		mg/Kg		104	70 - 130	0	35
Ethylbenzene			0.100	0.1115		mg/Kg		111	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2270		mg/Kg		114	70 - 130	0	35
o-Xylene			0.100	0.1112		mg/Kg		111	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

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

Lab Sample ID: MB 880-1198/1-A
Matrix: Solid
Analysis Batch: 1225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1198

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		04/01/21 14:29	04/02/21 15:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/01/21 14:29	04/02/21 15:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/01/21 14:29	04/02/21 15:43	1
Total TPH	<50.0	U	50.0		mg/Kg		04/01/21 14:29	04/02/21 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*04/01/21 14:29*	*04/02/21 15:43*	*1*
o-Terphenyl	*92*		*70 - 130*	*04/01/21 14:29*	*04/02/21 15:43*	*1*

Lab Sample ID: LCS 880-1198/2-A
Matrix: Solid
Analysis Batch: 1225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1198

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	899.0		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	834.0		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: LCSD 880-1198/3-A
Matrix: Solid
Analysis Batch: 1225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1198

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	935.1		mg/Kg		94	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	843.2		mg/Kg		84	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

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

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

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

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: 890-448-1 MS
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 1283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1159		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1056		mg/Kg		103	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: 890-448-1 MSD
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 1283

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1125		mg/Kg		108	70 - 130	3	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

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

Lab Sample ID: 890-448-1 MSD
Matrix: Solid
Analysis Batch: 1291

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 1283

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1041		mg/Kg		102	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1232/1-A
Matrix: Solid
Analysis Batch: 1263

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			04/02/21 18:36	1

Lab Sample ID: LCS 880-1232/2-A
Matrix: Solid
Analysis Batch: 1263

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	272.0		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-1232/3-A
Matrix: Solid
Analysis Batch: 1263

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	272.8		mg/Kg		109	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

GC VOA

Prep Batch: 1256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-1	PH01	Total/NA	Solid	5035	
890-448-2	PH01 A	Total/NA	Solid	5035	
890-448-3	FS01	Total/NA	Solid	5035	
890-448-4	FS02	Total/NA	Solid	5035	
890-448-5	SW01	Total/NA	Solid	5035	
MB 880-1256/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1256/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1256/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 1306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-1	PH01	Total/NA	Solid	8021B	1256
890-448-2	PH01 A	Total/NA	Solid	8021B	1256
890-448-3	FS01	Total/NA	Solid	8021B	1256
890-448-4	FS02	Total/NA	Solid	8021B	1256
890-448-5	SW01	Total/NA	Solid	8021B	1256
MB 880-1256/5-A	Method Blank	Total/NA	Solid	8021B	1256
LCS 880-1256/1-A	Lab Control Sample	Total/NA	Solid	8021B	1256
LCSD 880-1256/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1256

GC Semi VOA

Prep Batch: 1198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-4	FS02	Total/NA	Solid	8015NM Prep	
890-448-5	SW01	Total/NA	Solid	8015NM Prep	
MB 880-1198/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1198/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1198/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-4	FS02	Total/NA	Solid	8015B NM	1198
890-448-5	SW01	Total/NA	Solid	8015B NM	1198
MB 880-1198/1-A	Method Blank	Total/NA	Solid	8015B NM	1198
LCS 880-1198/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1198
LCSD 880-1198/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1198

Prep Batch: 1283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-1	PH01	Total/NA	Solid	8015NM Prep	
890-448-2	PH01 A	Total/NA	Solid	8015NM Prep	
890-448-3	FS01	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	
890-448-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-448-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

GC Semi VOA

Analysis Batch: 1291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-1	PH01	Total/NA	Solid	8015B NM	1283
890-448-2	PH01 A	Total/NA	Solid	8015B NM	1283
890-448-3	FS01	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
890-448-1 MS	PH01	Total/NA	Solid	8015B NM	1283
890-448-1 MSD	PH01	Total/NA	Solid	8015B NM	1283

HPLC/IC

Leach Batch: 1232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-1	PH01	Soluble	Solid	DI Leach	
890-448-2	PH01 A	Soluble	Solid	DI Leach	
890-448-3	FS01	Soluble	Solid	DI Leach	
890-448-4	FS02	Soluble	Solid	DI Leach	
890-448-5	SW01	Soluble	Solid	DI Leach	
MB 880-1232/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1232/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1232/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-448-1	PH01	Soluble	Solid	300.0	1232
890-448-2	PH01 A	Soluble	Solid	300.0	1232
890-448-3	FS01	Soluble	Solid	300.0	1232
890-448-4	FS02	Soluble	Solid	300.0	1232
890-448-5	SW01	Soluble	Solid	300.0	1232
MB 880-1232/1-A	Method Blank	Soluble	Solid	300.0	1232
LCS 880-1232/2-A	Lab Control Sample	Soluble	Solid	300.0	1232
LCSD 880-1232/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1232

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Client Sample ID: PH01
Date Collected: 03/29/21 10:31
Date Received: 03/29/21 16:04

Lab Sample ID: 890-448-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1256	04/02/21 14:30	KL	XM
Total/NA	Analysis	8021B		1	1306	04/05/21 17:12	AJ	XM
Total/NA	Prep	8015NM Prep			1283	04/03/21 13:41	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 23:45	AJ	XM
Soluble	Leach	DI Leach			1232	04/02/21 10:14	SC	XM
Soluble	Analysis	300.0		50	1263	04/02/21 20:59	CH	XM

Client Sample ID: PH01 A
Date Collected: 03/29/21 10:48
Date Received: 03/29/21 16:04

Lab Sample ID: 890-448-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1256	04/02/21 14:30	KL	XM
Total/NA	Analysis	8021B		1	1306	04/05/21 17:32	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 00:48	AJ	XM
Soluble	Leach	DI Leach			1232	04/02/21 10:14	SC	XM
Soluble	Analysis	300.0		1	1263	04/02/21 21:05	CH	XM

Client Sample ID: FS01
Date Collected: 03/29/21 13:11
Date Received: 03/29/21 16:04

Lab Sample ID: 890-448-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1256	04/02/21 14:30	KL	XM
Total/NA	Analysis	8021B		1	1306	04/05/21 17:52	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 01:09	AJ	XM
Soluble	Leach	DI Leach			1232	04/02/21 10:14	SC	XM
Soluble	Analysis	300.0		1	1263	04/02/21 21:10	CH	XM

Client Sample ID: FS02
Date Collected: 03/29/21 13:15
Date Received: 03/29/21 16:04

Lab Sample ID: 890-448-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1256	04/02/21 14:30	KL	XM
Total/NA	Analysis	8021B		1	1306	04/05/21 19:43	AJ	XM
Total/NA	Prep	8015NM Prep			1198	04/01/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	1225	04/03/21 00:22	AJ	XM
Soluble	Leach	DI Leach			1232	04/02/21 10:14	SC	XM
Soluble	Analysis	300.0		1	1263	04/02/21 21:16	CH	XM

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Client Sample ID: SW01

Date Collected: 03/29/21 13:21
Date Received: 03/29/21 16:04

Lab Sample ID: 890-448-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1256	04/02/21 14:30	KL	XM
Total/NA	Analysis	8021B		1	1306	04/05/21 20:04	AJ	XM
Total/NA	Prep	8015NM Prep			1198	04/01/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	1225	04/03/21 00:44	AJ	XM
Soluble	Leach	DI Leach			1232	04/02/21 10:14	SC	XM
Soluble	Analysis	300.0		1	1263	04/02/21 21:22	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.
Project/Site: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

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: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

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: PLU 13 DTD 121H/122H

Job ID: 890-448-1
SDG: TE012921031

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-448-1	PH01	Solid	03/29/21 10:31	03/29/21 16:04	- 2
890-448-2	PH01 A	Solid	03/29/21 10:48	03/29/21 16:04	- 4
890-448-3	FS01	Solid	03/29/21 13:11	03/29/21 16:04	- 1
890-448-4	FS02	Solid	03/29/21 13:15	03/29/21 16:04	- 2.5
890-448-5	SW01	Solid	03/29/21 13:21	03/29/21 16:04	0 - 2.5

Chain of Custody

Work Order No: _____

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 Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jeremy.Hill@wsp.com, Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 13 DTD 121H/122H	Turn Around	
Project Number:	TF012921031	Routine	✓
P.O. Number:		Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	1.8/1.6	Thermometer ID	2NPM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	5

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
PH01	S	3/29/21	1031	2.0	1	X	X	X	Discrete
PH01A			1048	4.0					Discrete
FS01			1311	1.0					Composite
FS02			1315	2.5					↓
SW01	↓	↓	1321	0-2.5'	↓	↓	↓	↓	

890-448 Chain of Custody

Work Order Notes

Inc
NAPP2104348535
API
30-015-45825
AFE
DD.2017.04384.CAP.CMP.01
DD.2017.04385.CAP.CMP.01

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

ANALYSIS REQUEST

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		3-29-21 1603			
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: 890-138 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 #: 890-448-1
Address: 1211 W Florida Ave	Due Date Requested: 4/2/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701	PO #:			
Phone: 432-704-5440(Tel)	WO #:			
Email	Project #: 89000004			
Project Name: PLU 13 DTD 121H/122H	SSOW#:			
Site:				

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/5036FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
PH01 (890-448-1)	3/29/21	10 31 Mountain		Solid			X	X	X	1	
PH01 A (890-448-2)	3/29/21	10 48 Mountain		Solid			X	X	X	1	
FS01 (890-448-3)	3/29/21	13 11 Mountain		Solid			X	X	X	1	
FS02 (890-448-4)	3/29/21	13 15 Mountain		Solid			X	X	X	1	
SW01 (890-448-5)	3/29/21	13 21 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: Clue Cuff 3.30.21	Date/Time:	Company	Received by:	Date/Time: 3/30/21 2:10pm	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: 890-448-1
SDG Number: TE012921031

Login Number: 448
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: 890-448-1
SDG Number: TE012921031

Login Number: 448
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 03/30/21 02:42 PM

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	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 27239

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 27239
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2104348535 PLU 13 DTD 121H, thank you. This closure is approved.	11/10/2021