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	NAPP2103632350
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 32.27659 Longitude -103.94264
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Remuda 100	Site Type CTB
Date Release Discovered 01/25/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	25	23S	29E	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) 1.0	Volume Recovered (bbls) 0
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release LO reported a release of condensate out of the low pressure flare which ignited and extinguished itself on the ground. The level switch to activate the pump did not engage, leaving trapped fluid in the low pressure flare line. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2103632350
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? A release that results in a fire or is the result of a fire.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Adrian Baker to 'Bratcher, Mike, EMNRD'; Venegas, Victoria, EMNRD; Hamlet, Robert, EMNRD; emily.hernandez@state.nm.us; 'Mann, Ryan' on Monday, January 25, 2021 11:43 AM 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:

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: 2-5-21

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

OCD Only

Received by: Date:

Location:	Remuda 100	
Spill Date:	1/25/2021	
Area 1		
Approximate Area =	1491.00	sq. ft.
Average Saturation (or depth) of spill =	1.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Condensate=	1.00	bbls
TOTAL VOLUME OF LEAK		
Total Condensate =	**1.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Condensate =	**0.00**	**bbls**

Incident ID	NAPP2103632350
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	NAPP2103632350
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: 4-22-2021

email: Kyle.Littrell@exxonmobil.com Telephone: (432)-221-7331

OCD Only

Received by: Date:

Incident ID	NAPP2103632350
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: 4-22-2021

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	NAPP2103632350
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

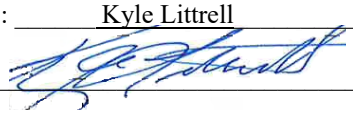
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ 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: 4-22-2021

email: Kyle.Littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: Robert Hamlet Date: 8/12/2021

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: 8/12/2021

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 23, 2021

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

RE: Closure Request
Remuda 100
Incident Number NAPP2103632350
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 Remuda 100 (Site) in Unit E, Section 25, Township 23 South, Range 29 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 condensate fire at the Site. Based on the excavation activities and confirmation soil sample laboratory analytical results, XTO is submitting this Closure Request, describing remediation that has occurred and requesting no further action (NFA) for Incident Number NAPP2103632350.

RELEASE BACKGROUND

On January 25, 2021, approximately 1.0 barrel (bbl) of condensate released from the low-pressure flare and ignited. The fire quickly extinguished itself on the ground beneath the flare. XTO reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) and subsequently submitted a Release Notification Form C-141 on February 5, 2021. The release was assigned Incident Number NAPP2103632350.

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 January 2021, WSP installed a soil boring within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-04494 was drilled to a depth of 105 feet bgs. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The borehole lithologic/soil sampling log is included in Attachment 1. The location of the borehole is approximately 0.28 miles southeast 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 105 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The well records are included in Attachment 1.

The closest significant watercourse to the Site is an unnamed ravine, located approximately 166 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium 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): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On February 3, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected two preliminary assessment soil samples (SS01 and SS02) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. The preliminary soil samples were 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 locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Laboratory analytical results for preliminary soil samples SS01 and SS02 indicated that chloride concentrations exceeded the Closure Criteria. Benzene, BTEX, 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 samples, excavation activities were warranted.

EXCAVATION AND SOIL SAMPLING ACTIVITIES

On April 14, 2021, WSP personnel returned to the Site to oversee excavation activities as indicated by visible staining, field screening activities, and laboratory analytical results for the preliminary samples. Excavation activities were performed using track-mounted backhoe, transport vehicle, and hydrovac. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Photographic documentation is included in Attachment 2.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the 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 through FS06 were collected from the floor of the excavation from a depth from of 1-foot bgs. Due to the shallow depth of the excavation, the floor samples included materials from any sidewalls. The 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 3.

The excavation measured approximately 1,200 square feet. A total of approximately 45 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 was backfilled.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 and SS02 indicated that chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for excavation floor samples FS01 through FS06 indicated that benzene, BTEX, 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 3.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the January 25, 2021 condensate fire. Laboratory analytical results for the excavation soil samples indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the excavation soil sample analytical results and confirmed depth to groundwater greater than

100 feet bgs, no further remediation was required. 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 NAPP2103632350.

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

Sincerely,

WSP USA Inc.

Elizabeth Naka
Assistant Consultant, Environmental Scientist

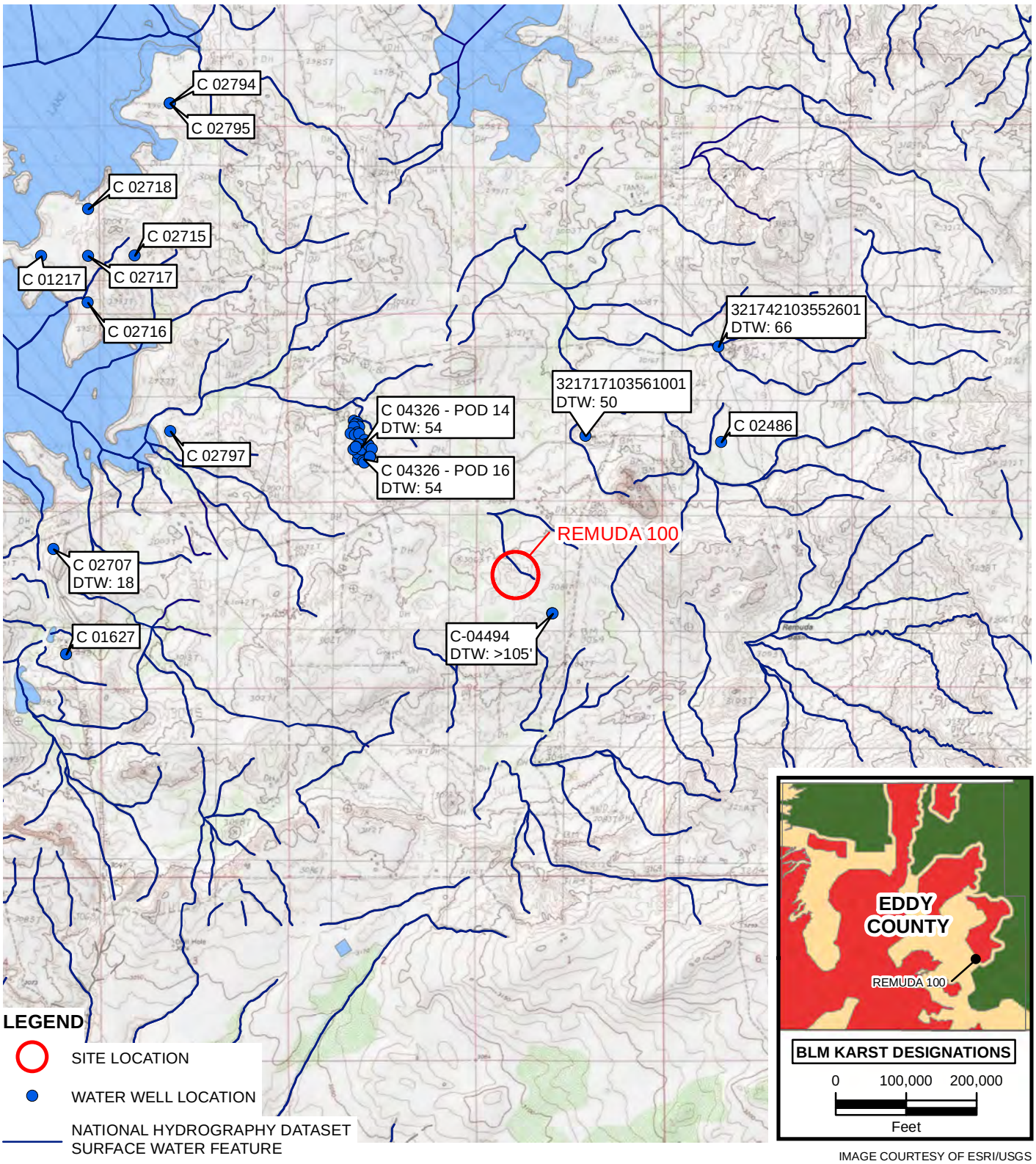
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Ryan Mann, New Mexico State Land Office

Attachments:

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

FIGURES



DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBER NAPP2103632350

FIGURE 1
SITE LOCATION MAP
REMUDA 100
UNIT E SEC 25 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\012921024_REMUDA 100 FLARE FIRE\012921024_FIG01_SL_RECEPTOR_2021_1.mxd

LEGEND

IMAGE COURTESY OF ESRI

RELEASE EXTENT

PRELIMINARY SOIL SAMPLE WITH CONCENTRATION EXCEEDING APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

0 50 100

Feet

N

NOTE: INCIDENT NUMBER NAPP2103632350
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
REMUDA 100
UNIT E SEC 25 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921024_REMUDA 100 FLARE FIRE\012921024_FIG02_PRELIMIMNARY_2021.mxd

LEGEND

IMAGE COURTESY OF ESRI

RELEASE EXTENT

FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

EXCAVATION EXTENT

0 50 100

Feet

N

NOTE: INCIDENT NUMBER NAPP2103632350
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
REMUDA 100
UNIT E SEC 25 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921024_REMUDA 100 FLARE FIRE\012921024_FIG03_EXCAVATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
Remuda 100
Incident Number NAPP2103632350
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**
Surface Samples										
SS01	02/03/2021	0.5	<0.00202	<0.00202	<50.1	63.5	<50.1	63.5	63.5	**2,240**
SS02	02/03/2021	0.5	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	**2,300**
Excavation Floor Samples										
FS01	4/14/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	428
FS02	4/14/2021	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	417
FS03	4/14/2021	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	228
FS04	4/14/2021	1	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	241
FS05	4/14/2021	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	306
FS06	4/14/2021	1	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	306

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 RECORD

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01 (C-04494)	Date: 11/18/2020, 12/02/20, 01/05/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Numbe	
LTE Job Number: TE012919039	
Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:
Hole Diameter: 6.25", 4.25"	Total Depth: 105'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
Lithology remarks only. No field screenings: Dry hole

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D			N			1	SP-SC	
						2		0-1' : SAND, dry, brown, poorly graded, fine grain, Clay (10% clay), some roots, no stain, no odor
						3		
						4		1-4' : SAND, dry, reddish-light brown, poorly graded, very fine - fine grain, some rounded caliche pebbles, no stain, no odor
D			N			5	CCHE	
						6		4-9' : CALICHE, dry, light brown-tan, poorly consolidated, sub-rounded caliche pebbles and gravel, very silty, gradational
						7		
						8		9-14' : Abundent sub-round caliche gravel
						9		14-19' : Some sub-angular caliche gravel and pebbles
						10		19-24' : Abundant sub-angular caliche gravel and pebbles, moderately consolidated
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
D			N			25	CL	

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01	Date: 11/18/2020, 12/02/20, 01/05/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Numbe	
LTE Job Number: TE012919039	
Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:
Hole Diameter: 6.25", 4.25"	Total Depth: 105'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
Lithology remarks only. No field screenings: Dry hole

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D			N			26	CL	24-39' : MUDSTONE, dry, reddish-brown, low plasticity, well consolidated, cohesive, trace caliche sub-angular pebbles, no tain, no odor, sharp transition
						27		
						28		
						29		34-39' : Sub-angular calcium carbonate gravel with dissolution features (1-3mm), tan-light brown
						30		At 39' : Begin air rotory (4.25")
						31		39-42' : DOLOMETIC LIMESTONE, tan-light brown, dry, well consolidated, with dissolution features (1-3mm), sharp, no stain, no odor, light to moderate reaction with HCl
						32		
						33		42-45' : Some light gray dolomite with trace dissolution features (>1mm)
						34		At 48' : Stop due to air rotory refusal (11/18/20)
						35		48-56' : Advance borehole with new air rotary bit (12/02/20), DOLOMITE, white, well consolidated, dark gray-black banding, no stain , no odor
						36		
						37		
						38		
						39		
D			N			40	DOL	
						41		
						42		
						43		
						44		
						45		
						46		
						47		
						48		Refusal on 11/18/20
						49		Restart borehole on 12/02/20
						50		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01	Date: 11/18/2020. 12/02/2020, 1/5/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Number:	
LTE Job Number: TE012919039	

LITHOLOGIC / SOIL SAMPLING LOG

		Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:	Hole Diameter: 6.25", 4.25"	Total Depth: 105'

Comments:
Lithologic log only, no field screenings

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						51	DOL	48-56' : Advanced borehole with new air rotary bit (12/02/20), DOLOMITE, white, well consolidated, dark gray- banding, no stain no odor
						52		
						53		
						54		
						55		
						56		At 56' : Restarted borehole on 1/5/2021 with sonic rig
						57		56-65' : DOLOMITE, dry, light gray-gray, well consolidated, some calcium crystalline veins (<1mm), some dissolution features (2mm) with fine calcite crystalline, trace orange oxidation staining within dissolution features, no stain, no odor
						58		
						59		62' : Brown-pale yellow coarse crystalline dolomitic limestone stringer (2cm)
						60		63-65' : Abundant calcite crystalline veins (<1mm), pale green-gray, poorly consolidated
						61		
						62		65-69' : MUDSTONE, moist, reddish brown, poorly consolidated, high plasticity, cohesive, abundant coarse crystalline gypsum, few pale green-gray mottling, no stain, no odor
						63		
						64		69-81' : GYPSUM with Anhydrite, dry, greenish gray, some pale yellow, well consolidated, finr crystalline, 20% anhydrite, no stain, no odor
D			N			65	CH-S	
						66		
						67		
						68		
						69	GYP	
D			N			70		
						71		
						72		
						73		
						74		
						75		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01	Date: 11/18/2020. 12/02/2020, 1/5/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Number:	
LTE Job Number: TE012919039	

LITHOLOGIC / SOIL SAMPLING LOG

		Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:	Hole Diameter: 6.25", 4.25"	Total Depth: 105'

Comments:
Lithologic log only, no field screenings

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						76	GYP	69-81' : GYPSUM with Anhydrite, dry, greenish gray, some pale yellow, well consolidated, finr crystalline, 20% anhydrite, no stain, no odor
						77		
						78		81-98' : MUDSTONE, moist, dark reddish brown, moderately consolidated, high plasticity, cohesive, trace coarse crystalline gypsum inclusions, no stain, no odor
						79		
						80		85-86.5' : greenish-gray well consolidated coarse crystalline gypsum/anhydrite stringer
						81		
D			N			82	CH-S	90-98' : Some fine grain brown sand
						83		At 97' : dark gray-gray gyspum stringer (4cm)
						84		98-99.5' : GYPSUM, dark gray-gray, some brown, dry, well consolidated, fine-coarse crystalline, no stain, no odor
						85		99.5-105' : Sandy SILTSTONE, moist, brown, some gray-dark gray, poorly consolidated, 20% very fine grain sand, no stain, no odor
						86		
						87		
						88		
						89		
						90		
						91		
						92		
						93		
						94		
						95		
						96		
						97		
						98		
D			N			99	GYP	
D			N			100	ML-S	

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01	Date: 11/18/2020. 12/02/2020, 1/5/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Number:	
LTE Job Number: TE012919039	

LITHOLOGIC / SOIL SAMPLING LOG

		Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:	Hole Diameter: 6.25", 4.25"	Total Depth: 105'

Comments:
Lithologic log only, no field screenings

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D			N			101	ML-S	99.5-105' : Sandy SILTSTONE, moist, brown, some gray-dark gray, poorly consolidated, 20% very fine grain sand, no stain, no odor At 102' : Thin (<1mm) laminated black/gray well consolidated shale stringer (4cm thick)
						102		
						103		
						104		
						105		
						106		TD @ 105' bgs (1/5/2021)
						107		
						108		
						109		
						110		
						111		
						112		
						113		
						114		
						115		
						116		
						117		
						118		
						119		
						120		
						121		
						122		
						123		
						124		
						125		

USGS 321717103561001 23S.29E.24.41321

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°17'17", Longitude 103°56'10" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,034 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

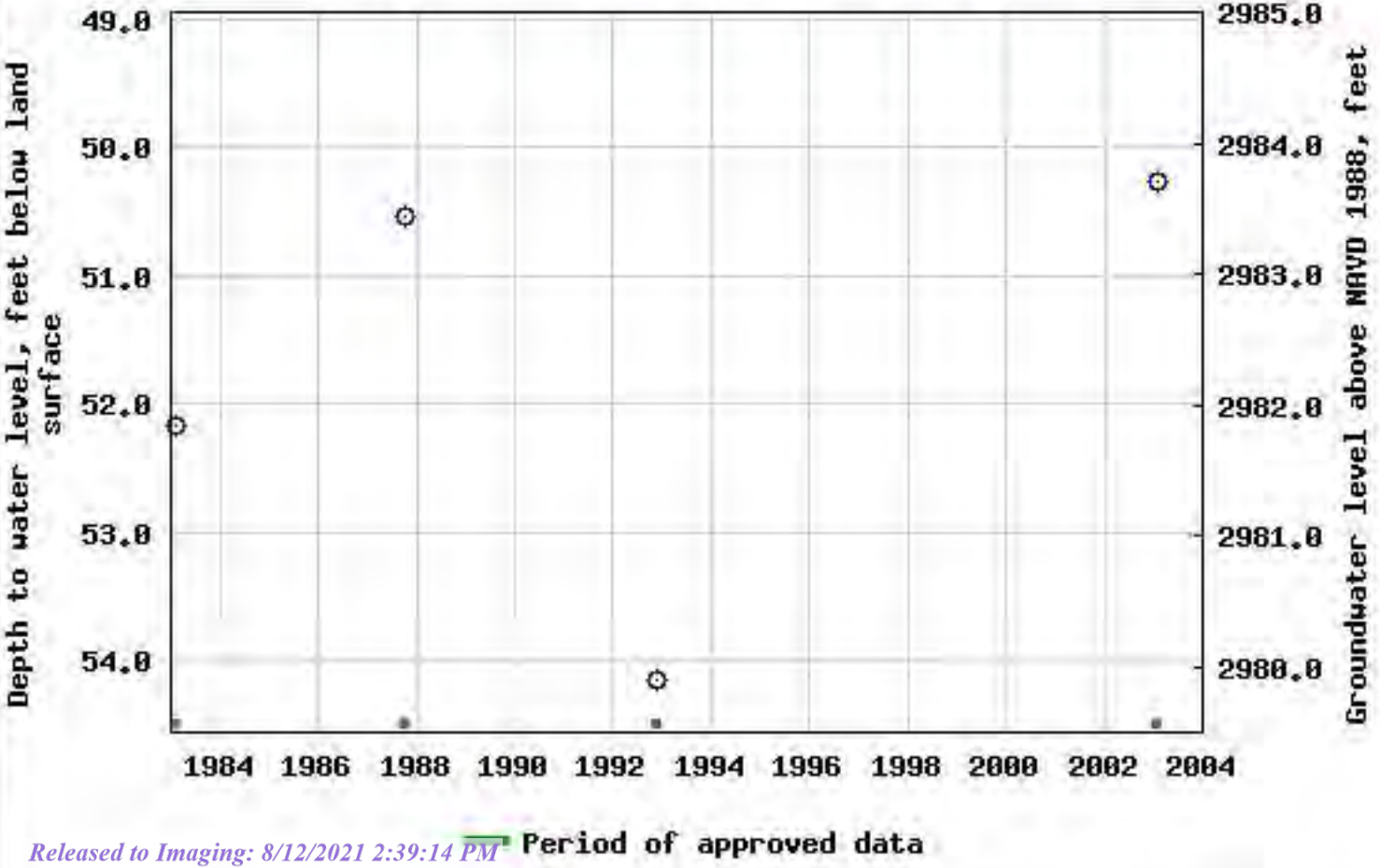
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-02-02	2003-01-29	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 321717103561001 23S.29E.24.41321



USGS 321742103552601 23S.30E.19.123421

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°17'42", Longitude 103°55'26" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 100 feet
Land surface altitude: 3,034 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

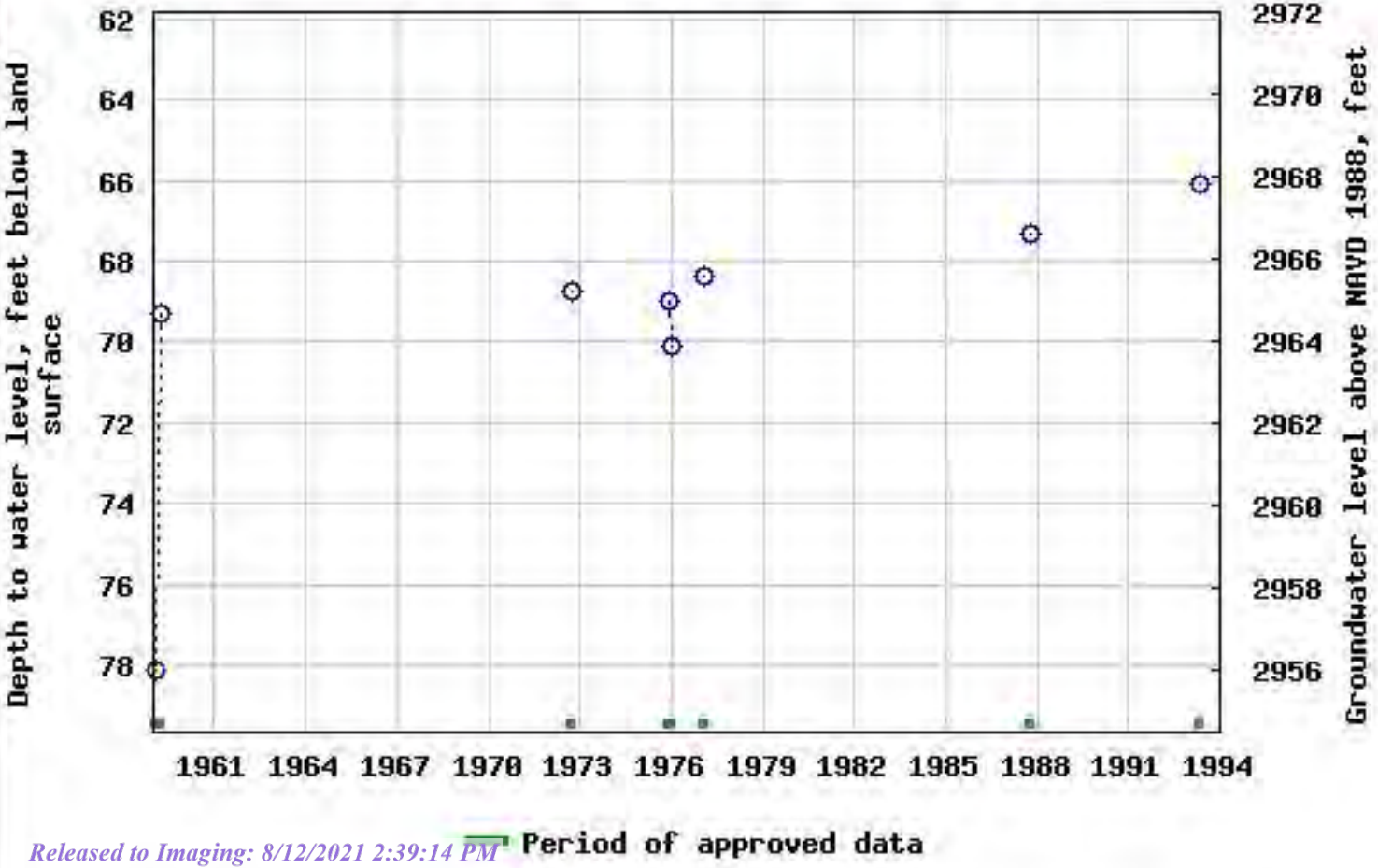
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-06	1993-05-06	8
Field/Lab water-quality samples	1972-09-20	1972-09-20	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 321742103552601 23S.30E.19.123421



New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02707			2	28	23S	29E	595535	3571868*

x

Driller License: 1348 **Driller Company:** TAYLOR WATER WELL SERVICE

Driller Name:

Drill Start Date: 06/09/2000 **Drill Finish Date:** 06/09/2000 **Plug Date:**

Log File Date: 08/28/2000 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 700 GPM

Casing Size: 2.38 **Depth Well:** 40 feet **Depth Water:** 18 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	36	78	Limestone/Dolomite/Chalk

x

Casing Perforations:	Top	Bottom
	35	40

x

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04326 POD14	4	2	3	23	23S	29E	598191	3572765

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 05/11/2019 **Drill Finish Date:** 05/11/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 2.06 **Depth Well:** 58 feet **Depth Water:** 54 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	45	54	Shale/Mudstone/Siltstone

x

Casing Perforations:	Top	Bottom
	48	58

x

POINT OF DIVERSION SUM

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04326 POD16	2	4	3	23	23S	29E	598209	3572664

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 05/14/2019 **Drill Finish Date:** 05/14/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 2.07 **Depth Well:** 64 feet **Depth Water:** 54 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	52	60	Limestone/Dolomite/Chalk

x

Casing Perforations:	Top	Bottom
	54	64

x

POINT OF DIVERSION SUM

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Remuda 100 Eddy County, New Mexico	TE012921024

Photo No.	Date
1	April 14, 2021

Western view of flare and release area.

Photo No.	Date
2	April 14, 2021

Northern view of excavation area.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Remuda 100 Eddy County, New Mexico	TE012921024

Photo No.	Date
3	April 14, 2021

Southwestern view of excavation area.

Photo No.	Date
4	April 14, 2021

Southern view of excavation area.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Remuda 100 Eddy County, New Mexico	TE012921024

Photo No.	Date
5	April 14, 2021

Northwestern view of backfilled excavation.

Photo No.	Date
6	April 14, 2021

Southern view of backfilled excavation.

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-137-1
Laboratory Sample Delivery Group: CC: 1067621001
Client Project/Site: Remuda 100 Flare Fire
Revision: 1

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

Attn: Dan Moir

JKramer

Authorized for release by:
2/11/2021 9:58:35 AM

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: Remuda 100 Flare Fire

Laboratory Job ID: 890-137-1
SDG: CC: 1067621001

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-137-1
Project/Site: Remuda 100 Flare Fire SDG: CC: 1067621001

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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Job ID: 890-137-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-137-1

REVISION

The report being provided is a revision of the original report sent on 2/10/2021. The report (revision 1) is being revised due to Corrected certificate summary page for TPH 8015.

Report revision history

Receipt
The samples were received on 2/3/2021 2:55 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°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.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Client Sample ID: SS01

Date Collected: 02/03/21 12:05
Date Received: 02/03/21 14:55

Lab Sample ID: 890-137-1
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		02/03/21 20:01	02/05/21 03:07	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 03:07	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 03:07	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 03:07	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 03:07	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		02/03/21 20:01	02/05/21 03:07	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*98*		*70 - 130*	*02/03/21 20:01*	*02/05/21 03:07*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/03/21 20:01*	*02/05/21 03:07*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.1	U	50.1		mg/Kg		02/09/21 08:19	02/09/21 13:34	1
Total TPH	**63.5**		50.1		mg/Kg		02/09/21 08:19	02/09/21 13:34	1
>C10-C28	**63.5**		50.1		mg/Kg		02/09/21 08:19	02/09/21 13:34	1
>C28-C35	<50.1	U	50.1		mg/Kg		02/09/21 08:19	02/09/21 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 135*	*02/09/21 08:19*	*02/09/21 13:34*	*1*
o-Terphenyl	*95*		*70 - 135*	*02/09/21 08:19*	*02/09/21 13:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2240**		50.4		mg/Kg			02/04/21 19:51	5

Client Sample ID: SS02

Date Collected: 02/03/21 12:10
Date Received: 02/03/21 14:55

Lab Sample ID: 890-137-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/03/21 20:01	02/05/21 03:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/03/21 20:01	02/05/21 03:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/03/21 20:01	02/05/21 03:52	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		02/03/21 20:01	02/05/21 03:52	1
Xylenes, Total	<0.00198	U	0.00198		mg/Kg		02/03/21 20:01	02/05/21 03:52	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		02/03/21 20:01	02/05/21 03:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/03/21 20:01	02/05/21 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*95*		*70 - 130*	*02/03/21 20:01*	*02/05/21 03:52*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/03/21 20:01*	*02/05/21 03:52*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<49.8	U	49.8		mg/Kg		02/09/21 08:19	02/09/21 13:55	1
Total TPH	<49.8	U	49.8		mg/Kg		02/09/21 08:19	02/09/21 13:55	1
>C10-C28	<49.8	U	49.8		mg/Kg		02/09/21 08:19	02/09/21 13:55	1
>C28-C35	<49.8	U	49.8		mg/Kg		02/09/21 08:19	02/09/21 13:55	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Client Sample ID: SS02

Date Collected: 02/03/21 12:10
Date Received: 02/03/21 14:55

Lab Sample ID: 890-137-2

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 135*	*02/09/21 08:19*	*02/09/21 13:55*	*1*
o-Terphenyl	*96*		*70 - 135*	*02/09/21 08:19*	*02/09/21 13:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2300		49.8		mg/Kg			02/04/21 19:56	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DFBZ1 (70-130)	BFB1 (70-130)
890-135-A-8-B MS	Matrix Spike	93	96
890-135-A-8-C MSD	Matrix Spike Duplicate	97	101
890-137-1	SS01	98	110
890-137-2	SS02	95	101
LCS 890-135/2-A	Lab Control Sample	94	95
LCSD 890-135/3-A	Lab Control Sample Dup	96	94
MB 890-135/1-A	Method Blank	99	100

Surrogate Legend

DFBZ = 1,4-Difluorobenzene
BFB = 4-Bromofluorobenzene (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 (70-135)	OTPH1 (70-135)
890-137-1	SS01	98	95
890-137-2	SS02	98	96
890-158-A-1-O MS	Matrix Spike	113	102
890-158-A-1-P MSD	Matrix Spike Duplicate	114	102
LCS 890-214/2-A	Lab Control Sample	108	98
LCSD 890-214/3-A	Lab Control Sample Dup	101	91
MB 890-214/1-A	Method Blank	91	89

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-135/1-A
Matrix: Solid
Analysis Batch: 146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 135

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*99*		*70 - 130*	*02/03/21 20:01*	*02/04/21 19:25*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*02/03/21 20:01*	*02/04/21 19:25*	*1*

Lab Sample ID: LCS 890-135/2-A
Matrix: Solid
Analysis Batch: 146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 135

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09222		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09531		mg/Kg		95	71 - 129		
Toluene			0.100	0.09397		mg/Kg		94	70 - 130		
m,p-Xylenes			0.200	0.1855		mg/Kg		93	70 - 135		
o-Xylene			0.100	0.09259		mg/Kg		93	71 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Difluorobenzene	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 890-135/3-A
Matrix: Solid
Analysis Batch: 146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 135

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09560		mg/Kg		96	70 - 130	4	35
Ethylbenzene			0.100	0.09322		mg/Kg		93	71 - 129	2	35
Toluene			0.100	0.09098		mg/Kg		91	70 - 130	3	35
m,p-Xylenes			0.200	0.1897		mg/Kg		95	70 - 135	2	35
o-Xylene			0.100	0.09249		mg/Kg		92	71 - 133	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Difluorobenzene	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-135-A-8-B MS
Matrix: Solid
Analysis Batch: 146

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 135

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00202	U	0.0996	0.09744		mg/Kg		98	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-135-A-8-B MS
Matrix: Solid
Analysis Batch: 146

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 135

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.0996	0.09063		mg/Kg		91	71 - 129
Toluene	<0.00202	U	0.0996	0.09104		mg/Kg		91	70 - 130
m,p-Xylenes	<0.00404	U	0.199	0.1803		mg/Kg		91	70 - 135
o-Xylene	<0.00202	U	0.0996	0.09027		mg/Kg		91	71 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Difluorobenzene	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-135-A-8-C MSD
Matrix: Solid
Analysis Batch: 146

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 135

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.1038		mg/Kg		103	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.100	0.1013		mg/Kg		101	71 - 129	11	35
Toluene	<0.00202	U	0.100	0.1027		mg/Kg		102	70 - 130	12	35
m,p-Xylenes	<0.00404	U	0.201	0.2042		mg/Kg		102	70 - 135	12	35
o-Xylene	<0.00202	U	0.100	0.1028		mg/Kg		102	71 - 133	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Difluorobenzene	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 890-214/1-A
Matrix: Solid
Analysis Batch: 215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 214

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.0	U	50.0		mg/Kg		02/09/21 08:19	02/09/21 09:29	1
Total TPH	<50.0	U	50.0		mg/Kg		02/09/21 08:19	02/09/21 09:29	1
>C10-C28	<50.0	U	50.0		mg/Kg		02/09/21 08:19	02/09/21 09:29	1
>C28-C35	<50.0	U	50.0		mg/Kg		02/09/21 08:19	02/09/21 09:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 135*	*02/09/21 08:19*	*02/09/21 09:29*	*1*
o-Terphenyl	*89*		*70 - 135*	*02/09/21 08:19*	*02/09/21 09:29*	*1*

Lab Sample ID: LCS 890-214/2-A
Matrix: Solid
Analysis Batch: 215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	1000	1016		mg/Kg		102	70 - 135
>C10-C28	1000	1012		mg/Kg		101	70 - 135

QC Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

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

Lab Sample ID: LCS 890-214/2-A
Matrix: Solid
Analysis Batch: 215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	108		70 - 135
o-Terphenyl	98		70 - 135

Lab Sample ID: LCSD 890-214/3-A
Matrix: Solid
Analysis Batch: 215

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 214

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10			1000	969.0		mg/Kg		97	70 - 135	5	25
>C10-C28			1000	977.0		mg/Kg		98	70 - 135	4	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 135
o-Terphenyl	91		70 - 135

Lab Sample ID: 890-158-A-1-O MS
Matrix: Solid
Analysis Batch: 215

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 214

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	<50.0	U	997	1020		mg/Kg		102	70 - 135
Total TPH	<50.0	U	1990	2033		mg/Kg		0	
>C10-C28	<50.0	U	997	1013		mg/Kg		98	70 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	113		70 - 135
o-Terphenyl	102		70 - 135

Lab Sample ID: 890-158-A-1-P MSD
Matrix: Solid
Analysis Batch: 215

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 214

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	<50.0	U	995	1068		mg/Kg		107	70 - 135	5	35
Total TPH	<50.0	U	1990	2118		mg/Kg		0		NC	
>C10-C28	<50.0	U	995	1050		mg/Kg		102	70 - 135	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	114		70 - 135
o-Terphenyl	102		70 - 135

QC Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-142/1-A
Matrix: Solid
Analysis Batch: 150

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			02/04/21 18:42	1

Lab Sample ID: LCS 890-142/2-A
Matrix: Solid
Analysis Batch: 150

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			500	504.8		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 890-142/3-A
Matrix: Solid
Analysis Batch: 150

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			500	532.0		mg/Kg		106	90 - 110	5	20

Lab Sample ID: 890-139-A-3-C MS
Matrix: Solid
Analysis Batch: 150

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	5330		503	5599	4	mg/Kg		54	90 - 110		

Lab Sample ID: 890-139-A-3-D MSD
Matrix: Solid
Analysis Batch: 150

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5330		504	5616	4	mg/Kg		57	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

GC VOA

Prep Batch: 135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-137-1	SS01	Total/NA	Solid	5030C	
890-137-2	SS02	Total/NA	Solid	5030C	
MB 890-135/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-135/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-135/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
890-135-A-8-B MS	Matrix Spike	Total/NA	Solid	5030C	
890-135-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5030C	

Analysis Batch: 146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-137-1	SS01	Total/NA	Solid	8021B	135
890-137-2	SS02	Total/NA	Solid	8021B	135
MB 890-135/1-A	Method Blank	Total/NA	Solid	8021B	135
LCS 890-135/2-A	Lab Control Sample	Total/NA	Solid	8021B	135
LCSD 890-135/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	135
890-135-A-8-B MS	Matrix Spike	Total/NA	Solid	8021B	135
890-135-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	135

GC Semi VOA

Prep Batch: 214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-137-1	SS01	Total/NA	Solid	8015NM Prep	
890-137-2	SS02	Total/NA	Solid	8015NM Prep	
MB 890-214/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 890-214/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 890-214/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-158-A-1-O MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-158-A-1-P MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-137-1	SS01	Total/NA	Solid	8015B NM	214
890-137-2	SS02	Total/NA	Solid	8015B NM	214
MB 890-214/1-A	Method Blank	Total/NA	Solid	8015B NM	214
LCS 890-214/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	214
LCSD 890-214/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	214
890-158-A-1-O MS	Matrix Spike	Total/NA	Solid	8015B NM	214
890-158-A-1-P MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	214

HPLC/IC

Leach Batch: 142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-137-1	SS01	Soluble	Solid	DI Leach	
890-137-2	SS02	Soluble	Solid	DI Leach	
MB 890-142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-139-A-3-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-139-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

HPLC/IC

Analysis Batch: 150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-137-1	SS01	Soluble	Solid	300.0	142
890-137-2	SS02	Soluble	Solid	300.0	142
MB 890-142/1-A	Method Blank	Soluble	Solid	300.0	142
LCS 890-142/2-A	Lab Control Sample	Soluble	Solid	300.0	142
LCSD 890-142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	142
890-139-A-3-C MS	Matrix Spike	Soluble	Solid	300.0	142
890-139-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	142

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Client Sample ID: SS01
Date Collected: 02/03/21 12:05
Date Received: 02/03/21 14:55

Lab Sample ID: 890-137-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			135	02/03/21 20:01	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 03:07	PXS	XC
Total/NA	Prep	8015NM Prep			214	02/09/21 08:19		XC
Total/NA	Analysis	8015B NM		1	215	02/09/21 13:34	BJH	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 19:51	A1S	XC

Client Sample ID: SS02
Date Collected: 02/03/21 12:10
Date Received: 02/03/21 14:55

Lab Sample ID: 890-137-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			135	02/03/21 20:01	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 03:52	PXS	XC
Total/NA	Prep	8015NM Prep			214	02/09/21 08:19		XC
Total/NA	Analysis	8015B NM		1	215	02/09/21 13:55	BJH	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 19:56	A1S	XC

Laboratory References:
XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-137-1
Project/Site: Remuda 100 Flare Fire SDG: CC: 1067621001

Laboratory: Eurofins Xenco, Carlsbad

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

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	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	5030C	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XC
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XC
300.0	Anions, Ion Chromatography	MCAWW	XC
5030C	Purge and Trap	SW846	XC
8015NM Prep	Microextraction	SW846	XC
DI Leach	Deionized Water Leaching Procedure	ASTM	XC

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:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Sample Summary

Client: WSP USA Inc.
Project/Site: Remuda 100 Flare Fire

Job ID: 890-137-1
SDG: CC: 1067621001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-137-1	SS01	Solid	02/03/21 12:05	02/03/21 14:55	
890-137-2	SS02	Solid	02/03/21 12:10	02/03/21 14:55	

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 Inc, Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Mermond
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	elizabeth.naka@wsp.com, dan.moir@wsp.com

Work Order Comments

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

Project Name:	Remuda 100 Flare Fire	Turn Around	
Project Number:	CC: 1067621001	Routine	X
P.O. Number:	Eddy County	Rush:	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.4 / 1.2	Thermometer ID	TPH 007	
Received Intact:	(Yes) No			
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 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	2/3/21	1205	0.5'	1	X	X	X	discrete
SS02	S	2/3/21	1210	0.5'	1	X	X	X	discrete

ANALYSIS REQUEST

890-137 Chain of Custody

Work Order Notes

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

Cost Center - 1067621001

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			02-03-21 1455	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-137-1
SDG Number: CC: 1067621001

Login Number: 137
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").	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-522-1
Laboratory Sample Delivery Group: TE012921024
Client Project/Site: Remuda 100

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

Attn: Dan Moir

JKramer

Authorized for release by:
4/16/2021 7:15:39 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: Remuda 100

Laboratory Job ID: 890-522-1
SDG: TE012921024

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-522-1
Project/Site: Remuda 100 SDG: TE012921024

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: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Job ID: 890-522-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-522-1

Receipt
The samples were received on 4/14/2021 2:31 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 1.2°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-522-1), FS02 (890-522-2), FS03 (890-522-3), FS04 (890-522-4), FS05 (890-522-5) and FS06 (890-522-6).

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: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Client Sample ID: FS01

Lab Sample ID: 890-522-1
Matrix: Solid
Date Collected: 04/14/21 12:00
Date Received: 04/14/21 14:31
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		04/15/21 10:02	04/15/21 21:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/15/21 10:02	04/15/21 21:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/15/21 10:02	04/15/21 21:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/15/21 10:02	04/15/21 21:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/15/21 10:02	04/15/21 21:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/15/21 10:02	04/15/21 21:53	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		04/15/21 10:02	04/15/21 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*04/15/21 10:02*	*04/15/21 21:53*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*04/15/21 10:02*	*04/15/21 21:53*	*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		04/15/21 08:24	04/15/21 15:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:03	1
Total TPH	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*04/15/21 08:24*	*04/15/21 15:03*	*1*
o-Terphenyl	*95*		*70 - 130*	*04/15/21 08:24*	*04/15/21 15:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**428**		5.05		mg/Kg			04/16/21 13:32	1

Client Sample ID: FS02

Lab Sample ID: 890-522-2
Matrix: Solid
Date Collected: 04/14/21 12:10
Date Received: 04/14/21 14:31
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		04/15/21 11:36	04/15/21 22:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/15/21 11:36	04/15/21 22:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/15/21 11:36	04/15/21 22:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/15/21 11:36	04/15/21 22:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/15/21 11:36	04/15/21 22:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/15/21 11:36	04/15/21 22:14	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		04/15/21 11:36	04/15/21 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*04/15/21 11:36*	*04/15/21 22:14*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*04/15/21 11:36*	*04/15/21 22:14*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Client Sample ID: FS02

Lab Sample ID: 890-522-2
Matrix: Solid
Date Collected: 04/14/21 12:10
Date Received: 04/14/21 14:31
Sample Depth: - 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		04/15/21 08:24	04/15/21 15:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:24	1
Total TPH	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*04/15/21 08:24*	*04/15/21 15:24*	*1*
o-Terphenyl	*84*		*70 - 130*	*04/15/21 08:24*	*04/15/21 15:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**417**		4.98		mg/Kg			04/16/21 13:47	1

Client Sample ID: FS03

Lab Sample ID: 890-522-3
Matrix: Solid
Date Collected: 04/14/21 12:20
Date Received: 04/14/21 14:31
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		04/15/21 11:36	04/15/21 22:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/15/21 11:36	04/15/21 22:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/15/21 11:36	04/15/21 22:34	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/15/21 11:36	04/15/21 22:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/15/21 11:36	04/15/21 22:34	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/15/21 11:36	04/15/21 22:34	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		04/15/21 11:36	04/15/21 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*04/15/21 11:36*	*04/15/21 22:34*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*04/15/21 11:36*	*04/15/21 22:34*	*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		04/15/21 08:24	04/15/21 15:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:45	1
Total TPH	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*04/15/21 08:24*	*04/15/21 15:45*	*1*
o-Terphenyl	*80*		*70 - 130*	*04/15/21 08:24*	*04/15/21 15:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**228**		4.97		mg/Kg			04/16/21 13:52	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Client Sample ID: FS04

Lab Sample ID: 890-522-4
Matrix: Solid
Date Collected: 04/14/21 12:30
Date Received: 04/14/21 14:31
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		04/15/21 11:36	04/15/21 22:55	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/15/21 11:36	04/15/21 22:55	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/15/21 11:36	04/15/21 22:55	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/15/21 11:36	04/15/21 22:55	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/15/21 11:36	04/15/21 22:55	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/15/21 11:36	04/15/21 22:55	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		04/15/21 11:36	04/15/21 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/15/21 11:36*	*04/15/21 22:55*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*04/15/21 11:36*	*04/15/21 22:55*	*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		04/15/21 08:24	04/15/21 16:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 16:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 16:06	1
Total TPH	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*04/15/21 08:24*	*04/15/21 16:06*	*1*
o-Terphenyl	*89*		*70 - 130*	*04/15/21 08:24*	*04/15/21 16:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**241**		4.95		mg/Kg			04/16/21 14:07	1

Client Sample ID: FS05

Lab Sample ID: 890-522-5
Matrix: Solid
Date Collected: 04/14/21 12:40
Date Received: 04/14/21 14:31
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		04/15/21 11:36	04/15/21 23:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/15/21 11:36	04/15/21 23:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/15/21 11:36	04/15/21 23:15	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/15/21 11:36	04/15/21 23:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/15/21 11:36	04/15/21 23:15	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/15/21 11:36	04/15/21 23:15	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		04/15/21 11:36	04/15/21 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*04/15/21 11:36*	*04/15/21 23:15*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*04/15/21 11:36*	*04/15/21 23:15*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Client Sample ID: FS05

Lab Sample ID: 890-522-5
Matrix: Solid
Date Collected: 04/14/21 12:40
Date Received: 04/14/21 14:31
Sample Depth: - 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		04/15/21 08:24	04/15/21 16:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 16:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 16:27	1
Total TPH	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*04/15/21 08:24*	*04/15/21 16:27*	*1*
o-Terphenyl	*89*		*70 - 130*	*04/15/21 08:24*	*04/15/21 16:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**306**		4.95		mg/Kg			04/16/21 14:12	1

Client Sample ID: FS06

Lab Sample ID: 890-522-6
Matrix: Solid
Date Collected: 04/14/21 12:50
Date Received: 04/14/21 14:31
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		04/15/21 11:36	04/15/21 23:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/15/21 11:36	04/15/21 23:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/15/21 11:36	04/15/21 23:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/15/21 11:36	04/15/21 23:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/15/21 11:36	04/15/21 23:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/15/21 11:36	04/15/21 23:35	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		04/15/21 11:36	04/15/21 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*04/15/21 11:36*	*04/15/21 23:35*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*04/15/21 11:36*	*04/15/21 23:35*	*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		04/15/21 08:24	04/15/21 16:48	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/15/21 08:24	04/15/21 16:48	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/15/21 08:24	04/15/21 16:48	1
Total TPH	<50.1	U	50.1		mg/Kg		04/15/21 08:24	04/15/21 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*04/15/21 08:24*	*04/15/21 16:48*	*1*
o-Terphenyl	*98*		*70 - 130*	*04/15/21 08:24*	*04/15/21 16:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**306**		5.00		mg/Kg			04/16/21 14:18	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

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)
890-522-1	FS01	100	104
890-522-2	FS02	110	107
890-522-3	FS03	109	109
890-522-4	FS04	108	109
890-522-5	FS05	109	106
890-522-6	FS06	106	108
LCS 880-1817/1-A	Lab Control Sample	98	106
LCSD 880-1817/2-A	Lab Control Sample Dup	98	106
MB 880-1817/5-A	Method Blank	98	101

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)
890-522-1	FS01	101	95
890-522-2	FS02	92	84
890-522-3	FS03	88	80
890-522-4	FS04	96	89
890-522-5	FS05	95	89
890-522-6	FS06	104	98
LCS 880-1813/2-A	Lab Control Sample	98	87
LCSD 880-1813/3-A	Lab Control Sample Dup	96	85
MB 880-1813/1-A	Method Blank	97	94

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1817/5-A
Matrix: Solid
Analysis Batch: 1833

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1817

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/15/21 10:02	04/15/21 16:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/15/21 10:02	04/15/21 16:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/15/21 10:02	04/15/21 16:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/15/21 10:02	04/15/21 16:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/15/21 10:02	04/15/21 16:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/15/21 10:02	04/15/21 16:05	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/15/21 10:02	04/15/21 16:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*04/15/21 10:02*	*04/15/21 16:05*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*04/15/21 10:02*	*04/15/21 16:05*	*1*

Lab Sample ID: LCS 880-1817/1-A
Matrix: Solid
Analysis Batch: 1833

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09286		mg/Kg		93	70 - 130		
Toluene			0.100	0.09730		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1019		mg/Kg		102	70 - 130		
m-Xylene & p-Xylene			0.200	0.2076		mg/Kg		104	70 - 130		
o-Xylene			0.100	0.1020		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-1817/2-A
Matrix: Solid
Analysis Batch: 1833

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09169		mg/Kg		92	70 - 130	1	35
Toluene			0.100	0.09769		mg/Kg		98	70 - 130	0	35
Ethylbenzene			0.100	0.1030		mg/Kg		103	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2089		mg/Kg		104	70 - 130	1	35
o-Xylene			0.100	0.1020		mg/Kg		102	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

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

Lab Sample ID: MB 880-1813/1-A
Matrix: Solid
Analysis Batch: 1820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1813

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		04/15/21 08:24	04/15/21 11:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 11:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 11:52	1
Total TPH	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*04/15/21 08:24*	*04/15/21 11:52*	*1*
o-Terphenyl	*94*		*70 - 130*	*04/15/21 08:24*	*04/15/21 11:52*	*1*

Lab Sample ID: LCS 880-1813/2-A
Matrix: Solid
Analysis Batch: 1820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1813

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1201		mg/Kg		120	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	968.0		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: LCSD 880-1813/3-A
Matrix: Solid
Analysis Batch: 1820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1813

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1074		mg/Kg		107	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	942.8		mg/Kg		94	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1830/1-A
Matrix: Solid
Analysis Batch: 1851

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			04/16/21 12:05	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1830/2-A
Matrix: Solid
Analysis Batch: 1851

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	258.4		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-1830/3-A
Matrix: Solid
Analysis Batch: 1851

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	256.4		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 890-522-1 MS
Matrix: Solid
Analysis Batch: 1851

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	428		253	664.1		mg/Kg		93	90 - 110		

Lab Sample ID: 890-522-1 MSD
Matrix: Solid
Analysis Batch: 1851

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	428		253	664.1		mg/Kg		93	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

GC VOA

Prep Batch: 1817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-522-1	FS01	Total/NA	Solid	5035	
890-522-2	FS02	Total/NA	Solid	5035	
890-522-3	FS03	Total/NA	Solid	5035	
890-522-4	FS04	Total/NA	Solid	5035	
890-522-5	FS05	Total/NA	Solid	5035	
890-522-6	FS06	Total/NA	Solid	5035	
MB 880-1817/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1817/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1817/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 1833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-522-1	FS01	Total/NA	Solid	8021B	1817
890-522-2	FS02	Total/NA	Solid	8021B	1817
890-522-3	FS03	Total/NA	Solid	8021B	1817
890-522-4	FS04	Total/NA	Solid	8021B	1817
890-522-5	FS05	Total/NA	Solid	8021B	1817
890-522-6	FS06	Total/NA	Solid	8021B	1817
MB 880-1817/5-A	Method Blank	Total/NA	Solid	8021B	1817
LCS 880-1817/1-A	Lab Control Sample	Total/NA	Solid	8021B	1817
LCSD 880-1817/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1817

GC Semi VOA

Prep Batch: 1813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-522-1	FS01	Total/NA	Solid	8015NM Prep	
890-522-2	FS02	Total/NA	Solid	8015NM Prep	
890-522-3	FS03	Total/NA	Solid	8015NM Prep	
890-522-4	FS04	Total/NA	Solid	8015NM Prep	
890-522-5	FS05	Total/NA	Solid	8015NM Prep	
890-522-6	FS06	Total/NA	Solid	8015NM Prep	
MB 880-1813/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1813/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1813/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-522-1	FS01	Total/NA	Solid	8015B NM	1813
890-522-2	FS02	Total/NA	Solid	8015B NM	1813
890-522-3	FS03	Total/NA	Solid	8015B NM	1813
890-522-4	FS04	Total/NA	Solid	8015B NM	1813
890-522-5	FS05	Total/NA	Solid	8015B NM	1813
890-522-6	FS06	Total/NA	Solid	8015B NM	1813
MB 880-1813/1-A	Method Blank	Total/NA	Solid	8015B NM	1813
LCS 880-1813/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1813
LCSD 880-1813/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1813

QC Association Summary

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

HPLC/IC

Leach Batch: 1830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-522-1	FS01	Soluble	Solid	DI Leach	
890-522-2	FS02	Soluble	Solid	DI Leach	
890-522-3	FS03	Soluble	Solid	DI Leach	
890-522-4	FS04	Soluble	Solid	DI Leach	
890-522-5	FS05	Soluble	Solid	DI Leach	
890-522-6	FS06	Soluble	Solid	DI Leach	
MB 880-1830/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1830/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1830/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-522-1 MS	FS01	Soluble	Solid	DI Leach	
890-522-1 MSD	FS01	Soluble	Solid	DI Leach	

Analysis Batch: 1851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-522-1	FS01	Soluble	Solid	300.0	1830
890-522-2	FS02	Soluble	Solid	300.0	1830
890-522-3	FS03	Soluble	Solid	300.0	1830
890-522-4	FS04	Soluble	Solid	300.0	1830
890-522-5	FS05	Soluble	Solid	300.0	1830
890-522-6	FS06	Soluble	Solid	300.0	1830
MB 880-1830/1-A	Method Blank	Soluble	Solid	300.0	1830
LCS 880-1830/2-A	Lab Control Sample	Soluble	Solid	300.0	1830
LCSD 880-1830/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1830
890-522-1 MS	FS01	Soluble	Solid	300.0	1830
890-522-1 MSD	FS01	Soluble	Solid	300.0	1830

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-522-1
Project/Site: Remuda 100 SDG: TE012921024

Client Sample ID: FS01 Lab Sample ID: 890-522-1

Date Collected: 04/14/21 12:00 **Matrix: Solid**
Date Received: 04/14/21 14:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1817	04/15/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	1833	04/15/21 21:53	MR	XM
Total/NA	Prep	8015NM Prep			1813	04/15/21 08:24	DM	XM
Total/NA	Analysis	8015B NM		1	1820	04/15/21 15:03	AJ	XM
Soluble	Leach	DI Leach			1830	04/15/21 12:29	SC	XM
Soluble	Analysis	300.0		1	1851	04/16/21 13:32	SC	XM

Client Sample ID: FS02 Lab Sample ID: 890-522-2

Date Collected: 04/14/21 12:10 **Matrix: Solid**
Date Received: 04/14/21 14:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1817	04/15/21 11:36	MR	XM
Total/NA	Analysis	8021B		1	1833	04/15/21 22:14	MR	XM
Total/NA	Prep	8015NM Prep			1813	04/15/21 08:24	DM	XM
Total/NA	Analysis	8015B NM		1	1820	04/15/21 15:24	AJ	XM
Soluble	Leach	DI Leach			1830	04/15/21 12:29	SC	XM
Soluble	Analysis	300.0		1	1851	04/16/21 13:47	SC	XM

Client Sample ID: FS03 Lab Sample ID: 890-522-3

Date Collected: 04/14/21 12:20 **Matrix: Solid**
Date Received: 04/14/21 14:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1817	04/15/21 11:36	MR	XM
Total/NA	Analysis	8021B		1	1833	04/15/21 22:34	MR	XM
Total/NA	Prep	8015NM Prep			1813	04/15/21 08:24	DM	XM
Total/NA	Analysis	8015B NM		1	1820	04/15/21 15:45	AJ	XM
Soluble	Leach	DI Leach			1830	04/15/21 12:29	SC	XM
Soluble	Analysis	300.0		1	1851	04/16/21 13:52	SC	XM

Client Sample ID: FS04 Lab Sample ID: 890-522-4

Date Collected: 04/14/21 12:30 **Matrix: Solid**
Date Received: 04/14/21 14:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1817	04/15/21 11:36	MR	XM
Total/NA	Analysis	8021B		1	1833	04/15/21 22:55	MR	XM
Total/NA	Prep	8015NM Prep			1813	04/15/21 08:24	DM	XM
Total/NA	Analysis	8015B NM		1	1820	04/15/21 16:06	AJ	XM
Soluble	Leach	DI Leach			1830	04/15/21 12:29	SC	XM
Soluble	Analysis	300.0		1	1851	04/16/21 14:07	SC	XM

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Client Sample ID: FS05

Lab Sample ID: 890-522-5
Date Collected: 04/14/21 12:40
Matrix: Solid
Date Received: 04/14/21 14:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1817	04/15/21 11:36	MR	XM
Total/NA	Analysis	8021B		1	1833	04/15/21 23:15	MR	XM
Total/NA	Prep	8015NM Prep			1813	04/15/21 08:24	DM	XM
Total/NA	Analysis	8015B NM		1	1820	04/15/21 16:27	AJ	XM
Soluble	Leach	DI Leach			1830	04/15/21 12:29	SC	XM
Soluble	Analysis	300.0		1	1851	04/16/21 14:12	SC	XM

Client Sample ID: FS06

Lab Sample ID: 890-522-6
Date Collected: 04/14/21 12:50
Matrix: Solid
Date Received: 04/14/21 14:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1817	04/15/21 11:36	MR	XM
Total/NA	Analysis	8021B		1	1833	04/15/21 23:35	MR	XM
Total/NA	Prep	8015NM Prep			1813	04/15/21 08:24	DM	XM
Total/NA	Analysis	8015B NM		1	1820	04/15/21 16:48	AJ	XM
Soluble	Leach	DI Leach			1830	04/15/21 12:29	SC	XM
Soluble	Analysis	300.0		1	1851	04/16/21 14:18	SC	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: 890-522-1
Project/Site: Remuda 100 SDG: TE012921024

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: 890-522-1
Project/Site: Remuda 100 SDG: TE012921024

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: Remuda 100

Job ID: 890-522-1
SDG: TE012921024

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-522-1	FS01	Solid	04/14/21 12:00	04/14/21 14:31	- 1
890-522-2	FS02	Solid	04/14/21 12:10	04/14/21 14:31	- 1
890-522-3	FS03	Solid	04/14/21 12:20	04/14/21 14:31	- 1
890-522-4	FS04	Solid	04/14/21 12:30	04/14/21 14:31	- 1
890-522-5	FS05	Solid	04/14/21 12:40	04/14/21 14:31	- 1
890-522-6	FS06	Solid	04/14/21 12:50	04/14/21 14:31	- 1

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: _____ www.xenco.com Page _____ of _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	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:	(303) 887-2946	Email:	Spencer.Lo@wsp.com,Korey.Kennedy@wsp.com,Dan.Moir@wsp.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:	Remuda 100	Turn Around	
Project Number:	TE012921024	Routine ☐	
P.O. Number:		Rush: 3day	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.6	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	1.2
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 0=8021)	Chloride (EPA 300.0)
FS01	S	4/14/2021	1200	1'	1	X	X	X
FS02	S	4/14/2021	1210	1'	1	X	X	X
FS03	S	4/14/2021	1220	1'	1	X	X	X
FS04	S	4/14/2021	1230	1'	1	X	X	X
FS05	S	4/14/2021	1240	1'	1	X	X	X
FS06	S	4/14/2021	1250	1'	1	X	X	X

890-522 Chain of Custody

Work Order Notes

Cost Center: 1067621001
Incident ID: NAPP2103632350
Spill Date: 1/25/2021

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		Gabriel Urdiales	4/14/2021	2 14:31		
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: 890-166 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 #: 890-522-1
Address: 1211 W Florida Ave	Due Date Requested: 4/19/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Remuda 100	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:								
FS01 (890-522-1)	4/14/21	12 00 Mountain		Solid			X	X	X	1	
FS02 (890-522-2)	4/14/21	12 10 Mountain		Solid			X	X	X	1	
FS03 (890-522-3)	4/14/21	12 20 Mountain		Solid			X	X	X	1	
FS04 (890-522-4)	4/14/21	12 30 Mountain		Solid			X	X	X	1	
FS05 (890-522-5)	4/14/21	12 40 Mountain		Solid			X	X	X	1	
FS06 (890-522-6)	4/14/21	12 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: 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	Date/Time:	Company	Received by	Date/Time	Company
Cive Cuff 4.14.21				4-15-21 11:00am	
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: 890-522-1
SDG Number: TE012921024

Login Number: 522
List Number: 1
Creator: Ordonez, Gabby

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: 890-522-1
SDG Number: TE012921024

Login Number: 522
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/15/21 11:21 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	

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 25414

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 25414
	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 #NAPP2103632350 REMUDA 100 CTB, thank you. This closure is approved.	8/12/2021