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	NAPP2106355755
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 32.26454 Longitude -103.93481
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Raider	Site Type Compressor Station
Date Release Discovered 02/22/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	36	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) 0.5	Volume Recovered (bbls) 0.0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Liquid build-up in the flare system, liquid ignited, and was the fire was extinguished using a fire extinguisher. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2106355755
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; robert.Hamlet@state.nm.us; Venegas, Victoria, EMNRD; emily.hernandez@state.nm.us; Mann, Ryan on Monday, February 22, 2021 11:36 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: Adrian Baker
Title: Environmental Coordinator
Signature:
Date: 3/4/21
email: adrian.baker@exxonmobil.com
Telephone: 432-221-7331

OCD Only

Received by:
Date:

Location:	Raider CS	
Spill Date:	2/22/2021	
Area 1		
Approximate Area =	1512.00	sq. ft.
Average Saturation (or depth) of spill =	0.75	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.50	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.50**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**

Incident ID	NAPP2106355755
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?	>105 (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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2106355755
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 5/10/2021

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

OCD Only

Received by: Date:

Incident ID	NAPP2106355755
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 Manger

Signature: Date: 5/10/2021

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:

Incident ID	NAPP2106355755
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.***

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☒ Description of remediation activities

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Printed Name: Kyle Littrell Title: Environmental Manger

Signature: Date: 5/10/2021

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

OCD Only

Received by: Robert Hamlet Date: 7/23/2021

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: 7/23/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

May 10, 2021

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

RE: Closure Request
Raider Compressor Station
Incident Number NAPP2106355755
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 and soil sampling activities at the Raider Compressor Station (Site) in Unit G, Section 36, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a small crude oil fire at the Site. Based on the site assessment activities and laboratory analytical results from the soil sampling events, XTO is submitting this Closure Request, and requesting no further action (NFA) for Incident Number NAPP2106355755.

RELEASE BACKGROUND

On February 22, 2021, the flare released a small amount of fluid, which ignited. The fire was extinguished with a fire extinguisher once it reached the pad surface. The release was due to a liquid build up in the flare system. Approximately 0.5 barrels (bbls) of crude oil were released. XTO reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 on March 4, 2021. The release was assigned Incident Number NAPP2106355755.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321717103561001, located approximately 1.64 miles north of the Site. However, due to the limited groundwater data in the region, WSP installed a soil boring in the area in January 2021. Soil boring BH01, permitted as C-04494, was drilled to a depth of 105 feet bgs utilizing a truck-mounted hollow stem auger rig. The location of the borehole is approximately 0.7 miles

northwest of the Site and is depicted on Figure 1. 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 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. The borehole was properly abandoned with hydrated bentonite chips. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 2.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 680 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (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)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT ACTIVITIES

On April 15, 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 one preliminary assessment soil sample, SS01, within the release extent from a depth of 0.5 feet bgs to assess for the presence or absence of impacted soil. Three additional preliminary assessment soil samples, SS02 through SS04, were collected around the release area from a depth of 0.5 feet bgs to confirm the lateral extent of the release. 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 was mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation is included in Attachment 3.

The soil samples were placed directly into pre-cleaned glass jar, 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.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS04 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the February 22, 2021 crude oil fire. Laboratory analytical results for the soil samples collected within and around the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table 1 Closure Criteria.

Based on the soil sample analytical results, no impacted soil was identified, and no further remediation was required. As such, XTO respectfully requests no further action for Incident Number NAPP2106355755.

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

Sincerely,

WSP USA Inc.

Spencer Lo
Staff Geologist

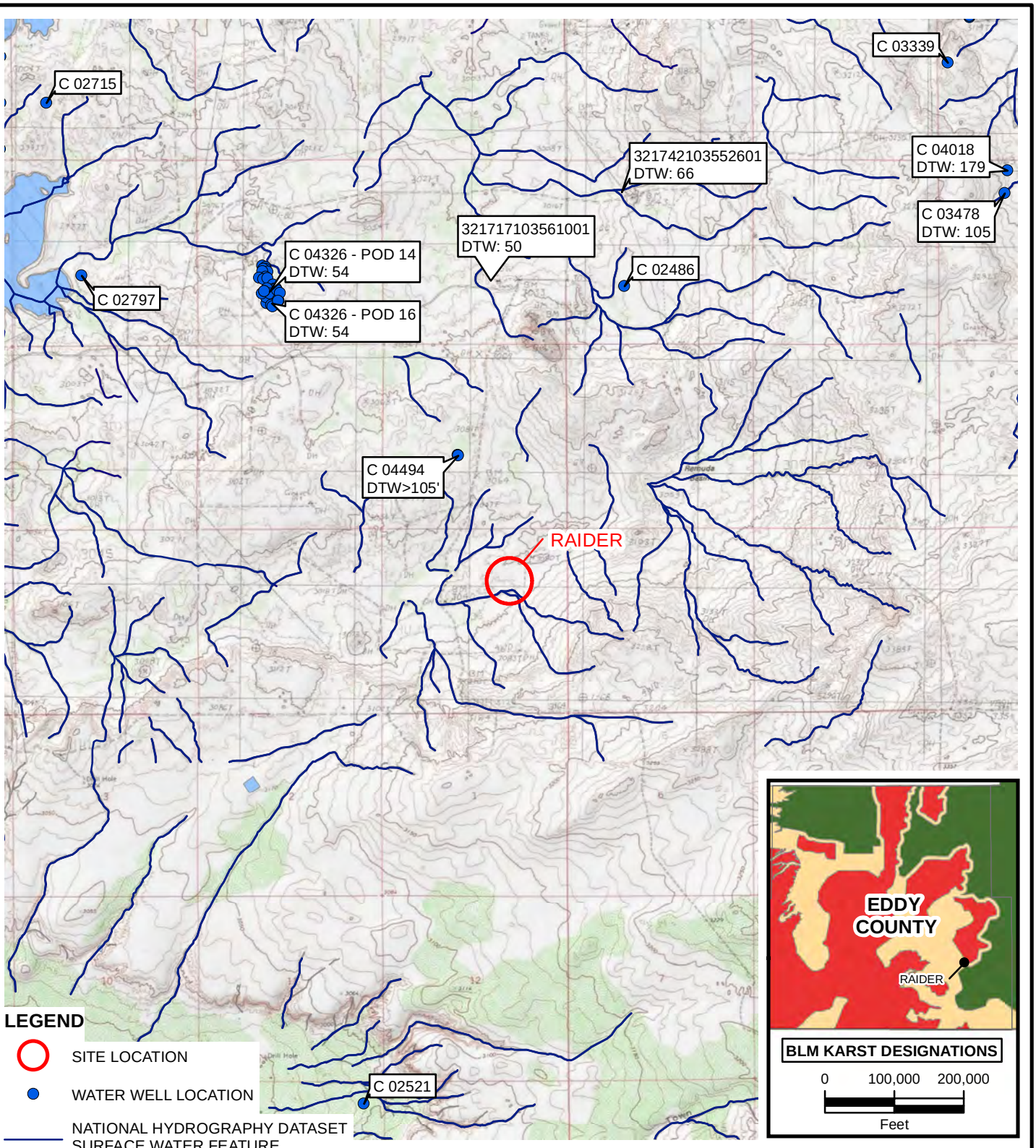
Ashley L. Ager, P.G.
Managing Director, Geologist

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

Attachments:

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

FIGURES



LEGEND

- SITE LOCATION
- WATER WELL LOCATION
- NATIONAL HYDROGRAPHY DATASET SURFACE WATER FEATURE
- NATIONAL WETLANDS INVENTORY SURFACE WATER FEATURE
- LOW KARST
- MEDIUM KARST
- HIGH KARST

DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBER nAPP2106355755

FIGURE 1
SITE LOCATION MAP
RAIDER COMPRESSOR STATION
UNIT G SEC 36 T23S R29E EDDY
COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\012921039_RAIDER\012921039_FIG01_SL_RECEPTOR_2021.mxd

IMAGE COURTESY OF ESRI

LEGEND

PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

0 50 100

Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
RAIDER COMPRESSOR STATION
UNIT G SEC 36 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

NOTE: INCIDENT NUMBER nAPP2106355755
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

P:\XTO Energy\GIS\MXD\012921039_RAIDER\012921039_FIG02_PRELIMINARY_2021.mxd

TABLES

Table 1

Soil Analytical Results
Raider Compressor Station
Incident Number NAPP2106355755
XTO Energy, Inc.
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Surface Samples										
SS01	04/15/2021	0.5	<0.00199	<0.00398	128	<50.0	<50.0	128	128	515
SS02	04/15/2021	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	342
SS03	04/15/2021	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	289
SS04	04/15/2021	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	492

Notes

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - motor oil range organics
NMOCD - New Mexico Oil Conservation Division
NMAC - New Mexico Administrative Code
< - indicates result is less than the stated laboratory method practical quantitation limit
NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
Greyed data represents samples that were excavated

ATTACHMENT 1: LITHOLOGIC/BORING LOGS

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
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:
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	0-1' : SAND, dry, brown, poorly graded, fine grain, Clay (10% clay), some roots, no stain, no odor
						2		
						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/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			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/C-04494	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		
D			N			70	GYP	
						71		
						72		
						73		
						74		
						75		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01/C-04494	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/C-04494	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		

ATTACHMENT 2: REFERENCED WELL RECORD

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

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1983-02-02		D	62610		2980.24	NGVD29	1	Z			A
1983-02-02		D	62611		2981.83	NAVD88	1	Z			A
1983-02-02		D	72019	52.17			1	Z			A
1987-10-14		D	62610		2981.87	NGVD29	1	Z			A
1987-10-14		D	62611		2983.46	NAVD88	1	Z			A
1987-10-14		D	72019	50.54			1	Z			A
1992-11-16		D	62610		2978.27	NGVD29	1	S			A
1992-11-16		D	62611		2979.86	NAVD88	1	S			A
1992-11-16		D	72019	54.14			1	S			A
2003-01-29		D	62610		2982.15	NGVD29	1	S	USGS	S	A
2003-01-29		D	62611		2983.74	NAVD88	1	S	USGS	S	A
2003-01-29		D	72019	50.26			1	S	USGS	S	A

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Raider Compressor Station Eddy County, NM	TE012921039

Photo No.	Date
1	April 15, 2021

Eastern view of flare and release area.

Photo No.	Date
2	April 15, 2021

Northern view of flare and release area.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Raider Compressor Station Eddy County, NM	TE012921039

Photo No.	Date
3	April 15, 2021

Southern view of flare and release area.

Photo No.	Date
4	April 15, 2021

Western view of flare and release area.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Job Number: 890-532-1

SDG Number: TE012921039

Job Description: Raider

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

Attention: Dan Moir

Approved for release.
Jessica Kramer
Project Manager
4/22/2021 4:23 PM

Jessica Kramer, Project Manager
1211 W. Florida Ave, Midland, TX, 79701
jessica.kramer@eurofinset.com
04/22/2021

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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.

Eurofins Xenco, Carlsbad
1089 N Canal St., Carlsbad, NM 88220
Tel (575) 988-3199 Fax (575) 988-3199 www.EurofinsUS.com

Client Sample Result Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

Lab Sample ID: 890-532-1
Client Sample ID: SS01
Depth: 0.5
Matrix: Solid
Date Collected: 04/15/2021 09:50

Method: 8021B - Volatile Organic Compounds (GC)

Prepared: 04/16/2021 12:15
Analyzed: 04/16/2021 21:00

Analyte	Unit/RL:	mg/Kg	RL
Benzene		<0.00199 U	0.00199
Toluene		<0.00199 U	0.00199
Ethylbenzene		<0.00199 U	0.00199
m-Xylene & p-Xylene		<0.00398 U	0.00398
o-Xylene		<0.00199 U	0.00199
Xylenes, Total		<0.00398 U	0.00398
Total BTEX		<0.00398 U	0.00398

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

Prepared: 04/20/2021 15:03
Analyzed: 04/21/2021 22:59

Analyte	Unit/RL:	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<50.0 U *+	50.0
Diesel Range Organics (Over C10-C28)		**128**	50.0
Oil Range Organics (Over C28-C36)		<50.0 U	50.0
Total TPH		**128**	50.0

Method: 300.0 - Anions, Ion Chromatography - Soluble

Prepared:
Analyzed: 04/22/2021 12:51

Analyte	Unit/RL:	mg/Kg	RL
Chloride		**515**	24.8

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-532-1
Laboratory Sample Delivery Group: TE012921039
Client Project/Site: Raider

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

Attn: Dan Moir

JKramer

Authorized for release by:
4/22/2021 4:22:55 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: Raider

Laboratory Job ID: 890-532-1
SDG: TE012921039

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-532-1
Project/Site: Raider SDG: TE012921039

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

Job ID: 890-532-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-532-1

Comments
No additional comments.

Receipt
The sample was received on 4/15/2021 2:19 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0º C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SS01 (890-532-1).

GC VOA
Method 8021B: Internal standard responses were outside of acceptance limits for the following sample: SS01 (890-532-1). The sample(s) shows evidence of matrix interference.

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

GC Semi VOA
Method 8015B NM: The laboratory control sample (LCS) associated with preparation batch 880-2052 and analytical batch 880-2091 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

Client Sample ID: SS01

Date Collected: 04/15/21 09:50
Date Received: 04/15/21 14:19
Sample Depth: - 0.5

Lab Sample ID: 890-532-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/16/21 12:15	04/16/21 21:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/16/21 12:15	04/16/21 21:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/16/21 12:15	04/16/21 21:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/16/21 12:15	04/16/21 21:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/16/21 12:15	04/16/21 21:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/16/21 12:15	04/16/21 21:00	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		04/16/21 12:15	04/16/21 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*04/16/21 12:15*	*04/16/21 21:00*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/16/21 12:15*	*04/16/21 21:00*	*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		04/20/21 15:03	04/21/21 22:59	1
Diesel Range Organics (Over C10-C28)	**128**		50.0		mg/Kg		04/20/21 15:03	04/21/21 22:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/21 15:03	04/21/21 22:59	1
Total TPH	**128**		50.0		mg/Kg		04/20/21 15:03	04/21/21 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*04/20/21 15:03*	*04/21/21 22:59*	*1*
o-Terphenyl	*83*		*70 - 130*	*04/20/21 15:03*	*04/21/21 22:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**515**		24.8		mg/Kg			04/22/21 12:51	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

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)
890-532-1	SS01	113	100
LCS 880-1895/1-A	Lab Control Sample	100	106
LCSD 880-1895/2-A	Lab Control Sample Dup	101	105
MB 880-1895/5-A	Method Blank	99	103

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)
890-532-1	SS01	92	83
LCS 880-2052/2-A	Lab Control Sample	112	96
LCSD 880-2052/3-A	Lab Control Sample Dup	128	108
MB 880-2052/1-A	Method Blank	104	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1895/5-A
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1895

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/16/21 12:15	04/16/21 19:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/16/21 12:15	04/16/21 19:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/16/21 12:15	04/16/21 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*04/16/21 12:15*	*04/16/21 19:50*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/16/21 12:15*	*04/16/21 19:50*	*1*

Lab Sample ID: LCS 880-1895/1-A
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1895

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08670		mg/Kg		87	70 - 130		
Toluene			0.100	0.09622		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.1019		mg/Kg		102	70 - 130		
m-Xylene & p-Xylene			0.200	0.2078		mg/Kg		104	70 - 130		
o-Xylene			0.100	0.1015		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-1895/2-A
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1895

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08446		mg/Kg		84	70 - 130	3	35
Toluene			0.100	0.09074		mg/Kg		91	70 - 130	6	35
Ethylbenzene			0.100	0.09413		mg/Kg		94	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1926		mg/Kg		96	70 - 130	8	35
o-Xylene			0.100	0.09473		mg/Kg		95	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

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

Lab Sample ID: MB 880-2052/1-A
Matrix: Solid
Analysis Batch: 2091

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2052

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		04/20/21 15:03	04/21/21 15:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/21 15:03	04/21/21 15:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/21 15:03	04/21/21 15:58	1
Total TPH	<50.0	U	50.0		mg/Kg		04/20/21 15:03	04/21/21 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*04/20/21 15:03*	*04/21/21 15:58*	*1*
o-Terphenyl	*98*		*70 - 130*	*04/20/21 15:03*	*04/21/21 15:58*	*1*

Lab Sample ID: LCS 880-2052/2-A
Matrix: Solid
Analysis Batch: 2091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2052

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1234		mg/Kg		123	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	894.9		mg/Kg		89	70 - 130		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane			*112*		*70 - 130*
o-Terphenyl			*96*		*70 - 130*

Lab Sample ID: LCSD 880-2052/3-A
Matrix: Solid
Analysis Batch: 2091

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2052

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1443	*+	mg/Kg		144	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	1033		mg/Kg		103	70 - 130	14	20

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane			*128*		*70 - 130*
o-Terphenyl			*108*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1944/1-A
Matrix: Solid
Analysis Batch: 2050

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			04/22/21 09:50	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1944/2-A
Matrix: Solid
Analysis Batch: 2050

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	239.5		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-1944/3-A
Matrix: Solid
Analysis Batch: 2050

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	238.7		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

GC VOA

Prep Batch: 1895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-532-1	SS01	Total/NA	Solid	5035	
MB 880-1895/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1895/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1895/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 1905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-532-1	SS01	Total/NA	Solid	8021B	1895
MB 880-1895/5-A	Method Blank	Total/NA	Solid	8021B	1895
LCS 880-1895/1-A	Lab Control Sample	Total/NA	Solid	8021B	1895
LCSD 880-1895/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1895

GC Semi VOA

Prep Batch: 2052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-532-1	SS01	Total/NA	Solid	8015NM Prep	
MB 880-2052/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2052/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2052/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-532-1	SS01	Total/NA	Solid	8015B NM	2052
MB 880-2052/1-A	Method Blank	Total/NA	Solid	8015B NM	2052
LCS 880-2052/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2052
LCSD 880-2052/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2052

HPLC/IC

Leach Batch: 1944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-532-1	SS01	Soluble	Solid	DI Leach	
MB 880-1944/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1944/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1944/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-532-1	SS01	Soluble	Solid	300.0	1944
MB 880-1944/1-A	Method Blank	Soluble	Solid	300.0	1944
LCS 880-1944/2-A	Lab Control Sample	Soluble	Solid	300.0	1944
LCSD 880-1944/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1944

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

Client Sample ID: SS01

Date Collected: 04/15/21 09:50
Date Received: 04/15/21 14:19

Lab Sample ID: 890-532-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1895	04/16/21 12:15	MR	XM
Total/NA	Analysis	8021B		1	1905	04/16/21 21:00	MR	XM
Total/NA	Prep	8015NM Prep			2052	04/20/21 15:03	DM	XM
Total/NA	Analysis	8015B NM		1	2091	04/21/21 22:59	AJ	XM
Soluble	Leach	DI Leach			1944	04/17/21 18:39	CH	XM
Soluble	Analysis	300.0		5	2050	04/22/21 12:51	WP	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-532-1
SDG: TE012921039

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: Raider

Job ID: 890-532-1
SDG: TE012921039

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-532-1	SS01	Solid	04/15/21 09:50	04/15/21 14:19	- 0.5

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 1 of 1

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,Tacoma.Morrissey@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:	Raider	Turn Around	
Project Number:	TE012921039	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.2/3.6	Thermometer ID	
Received Intact:	(Yes) No		2NM-007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
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)
SS01	S	4/15/2021	950	0.5'	1	X	X	X

ANALYSIS REQUEST

890-532 Chain of Custody

Work Order Notes

Incident ID: nAPP2106355755
Cost Center: 1137191001
API: 30-015-44388
Spill date: 2/22/2021

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		14:19 4/15/21	2		4.15.21 1419
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-532-1
SDG Number: TE012921039

Login Number: 532
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-532-1
SDG Number: TE012921039

Login Number: 532
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/16/21 11:42 AM

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

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ANALYTICAL REPORT

Job Number: 890-533-1

SDG Number: TE012921039

Job Description: Raider

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

Attention: Dan Moir

Approved for release.
Jessica Kramer
Project Manager
4/22/2021 4:30 PM

Jessica Kramer, Project Manager
1211 W. Florida Ave, Midland, TX, 79701
jessica.kramer@eurofinset.com
04/22/2021

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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.

Eurofins Xenco, Carlsbad
1089 N Canal St., Carlsbad, NM 88220
Tel (575) 988-3199 Fax (575) 988-3199 www.EurofinsUS.com

Client Sample Result Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

Lab Sample ID:	890-533-1	890-533-2	890-533-3
Client Sample ID:	SS02	SS03	SS04
Depth:	0.5	0.5	0.5
Matrix:	Solid	Solid	Solid
Date Collected:	04/15/2021 10:50	04/15/2021 10:55	04/15/2021 11:05

Method: 8021B - Volatile Organic Compounds (GC)

	Prepared:	04/16/2021 11:45		04/16/2021 11:45		04/16/2021 11:45	
	Analyzed:	04/17/2021 07:54		04/17/2021 08:14		04/17/2021 08:35	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00200 U F1 F2	0.00200	<0.00200 U	0.00200	<0.00201 U	0.00201
Toluene		<0.00200 U F1 F2	0.00200	<0.00200 U	0.00200	<0.00201 U	0.00201
Ethylbenzene		<0.00200 U F1 F2	0.00200	<0.00200 U	0.00200	<0.00201 U	0.00201
m-Xylene & p-Xylene		<0.00399 U F1 F2	0.00399	<0.00401 U	0.00401	<0.00402 U	0.00402
o-Xylene		<0.00200 U F1 F2	0.00200	<0.00200 U	0.00200	<0.00201 U	0.00201
Xylenes, Total		<0.00399 U F1 F2	0.00399	<0.00401 U	0.00401	<0.00402 U	0.00402
Total BTEX		<0.00399 U F1 F2	0.00399	<0.00401 U	0.00401	<0.00402 U	0.00402

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

	Prepared:	04/16/2021 12:09		04/16/2021 12:09		04/16/2021 12:09	
	Analyzed:	04/17/2021 21:42		04/17/2021 22:03		04/17/2021 22:25	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9
Diesel Range Organics (Over C10-C28)		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9
OII Range Organics (Over C28-C36)		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9
Total TPH		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9

Method: 300.0 - Anions, Ion Chromatography - Soluble

	Prepared:						
	Analyzed:	04/22/2021 12:58		04/22/2021 13:06		04/22/2021 13:14	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		**342**	5.05	**289**	5.05	**492**	4.98

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-533-1
Laboratory Sample Delivery Group: TE012921039
Client Project/Site: Raider

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

Attn: Dan Moir

JKramer

Authorized for release by:
4/22/2021 4:30:41 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: Raider

Laboratory Job ID: 890-533-1
SDG: TE012921039

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-533-1
Project/Site: Raider SDG: TE012921039

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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: Raider

Job ID: 890-533-1
SDG: TE012921039

Job ID: 890-533-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-533-1

Receipt
The samples were received on 4/15/2021 2:19 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 3.0°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SS02 (890-533-1), SS03 (890-533-2) and SS04 (890-533-3).

GC VOA
Method 8021B: Internal standard responses were outside of acceptance limits for the following sample: SS02 (890-533-1). The sample(s) shows evidence of matrix interference.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-1889 and analytical batch 880-1905 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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: Raider

Job ID: 890-533-1
SDG: TE012921039

Client Sample ID: SS02

Lab Sample ID: 890-533-1

Date Collected: 04/15/21 10:50
Matrix: Solid
Date Received: 04/15/21 14:19
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1 F2	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:54	1
Toluene	<0.00200	U F1 F2	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:54	1
Ethylbenzene	<0.00200	U F1 F2	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:54	1
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.00399		mg/Kg		04/16/21 11:45	04/17/21 07:54	1
o-Xylene	<0.00200	U F1 F2	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:54	1
Xylenes, Total	<0.00399	U F1 F2	0.00399		mg/Kg		04/16/21 11:45	04/17/21 07:54	1
Total BTEX	<0.00399	U F1 F2	0.00399		mg/Kg		04/16/21 11:45	04/17/21 07:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*04/16/21 11:45*	*04/17/21 07:54*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/16/21 11:45*	*04/17/21 07:54*	*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		04/16/21 12:09	04/17/21 21:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 21:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 21:42	1
Total TPH	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*04/16/21 12:09*	*04/17/21 21:42*	*1*
o-Terphenyl	*88*		*70 - 130*	*04/16/21 12:09*	*04/17/21 21:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**342**		5.05		mg/Kg			04/22/21 12:58	1

Client Sample ID: SS03

Lab Sample ID: 890-533-2

Date Collected: 04/15/21 10:55
Matrix: Solid
Date Received: 04/15/21 14:19
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 08:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 08:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 08:14	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/16/21 11:45	04/17/21 08:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 08:14	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/16/21 11:45	04/17/21 08:14	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		04/16/21 11:45	04/17/21 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*04/16/21 11:45*	*04/17/21 08:14*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*04/16/21 11:45*	*04/17/21 08:14*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-533-1
Project/Site: Raider SDG: TE012921039

Client Sample ID: SS03 Lab Sample ID: 890-533-2

Date Collected: 04/15/21 10:55 **Matrix: Solid**
Date Received: 04/15/21 14:19
Sample Depth: - 0.5

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		04/16/21 12:09	04/17/21 22:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 22:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 22:03	1
Total TPH	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*04/16/21 12:09*	*04/17/21 22:03*	*1*
o-Terphenyl	*80*		*70 - 130*	*04/16/21 12:09*	*04/17/21 22:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**289**		5.05		mg/Kg			04/22/21 13:06	1

Client Sample ID: SS04 Lab Sample ID: 890-533-3

Date Collected: 04/15/21 11:05 **Matrix: Solid**
Date Received: 04/15/21 14:19
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/16/21 11:45	04/17/21 08:35	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/16/21 11:45	04/17/21 08:35	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/16/21 11:45	04/17/21 08:35	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/16/21 11:45	04/17/21 08:35	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/16/21 11:45	04/17/21 08:35	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/16/21 11:45	04/17/21 08:35	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		04/16/21 11:45	04/17/21 08:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*04/16/21 11:45*	*04/17/21 08:35*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*04/16/21 11:45*	*04/17/21 08:35*	*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	<49.9	U	49.9		mg/Kg		04/16/21 12:09	04/17/21 22:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/16/21 12:09	04/17/21 22:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/16/21 12:09	04/17/21 22:25	1
Total TPH	<49.9	U	49.9		mg/Kg		04/16/21 12:09	04/17/21 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*04/16/21 12:09*	*04/17/21 22:25*	*1*
o-Terphenyl	*88*		*70 - 130*	*04/16/21 12:09*	*04/17/21 22:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**492**		4.98		mg/Kg			04/22/21 13:14	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

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)
890-533-1	SS02	109	103
890-533-1 MS	SS02	103	103
890-533-1 MSD	SS02	108	99
890-533-2	SS03	114	102
890-533-3	SS04	117	105
LCS 880-1889/1-A	Lab Control Sample	102	105
LCSD 880-1889/2-A	Lab Control Sample Dup	102	106
MB 880-1889/5-A	Method Blank	100	101
MB 880-1895/5-A	Method Blank	99	103

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)
890-533-1	SS02	103	88
890-533-2	SS03	94	80
890-533-3	SS04	103	88
LCS 880-1894/2-A	Lab Control Sample	95	78
LCSD 880-1894/3-A	Lab Control Sample Dup	117	101
MB 880-1894/1-A	Method Blank	93	91

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1889/5-A
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1889

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/16/21 11:45	04/17/21 07:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/16/21 11:45	04/17/21 07:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/16/21 11:45	04/17/21 07:25	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/16/21 11:45	04/17/21 07:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*04/16/21 11:45*	*04/17/21 07:25*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*04/16/21 11:45*	*04/17/21 07:25*	*1*

Lab Sample ID: LCS 880-1889/1-A
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1889

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08467		mg/Kg		85	70 - 130		
Toluene			0.100	0.08823		mg/Kg		88	70 - 130		
Ethylbenzene			0.100	0.09208		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1867		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09378		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-1889/2-A
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1889

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09488		mg/Kg		95	70 - 130	11	35
Toluene			0.100	0.09428		mg/Kg		94	70 - 130	7	35
Ethylbenzene			0.100	0.09638		mg/Kg		96	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1940		mg/Kg		97	70 - 130	4	35
o-Xylene			0.100	0.09674		mg/Kg		97	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-533-1 MS
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: SS02
Prep Type: Total/NA
Prep Batch: 1889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U F1 F2	0.100	0.05509	F1	mg/Kg		55	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

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

Lab Sample ID: 890-533-1 MS
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: SS02
Prep Type: Total/NA
Prep Batch: 1889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00200	U F1 F2	0.100	0.05797	F1	mg/Kg		58	70 - 130
Ethylbenzene	<0.00200	U F1 F2	0.100	0.06042	F1	mg/Kg		60	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.200	0.1261	F1	mg/Kg		63	70 - 130
o-Xylene	<0.00200	U F1 F2	0.100	0.06400	F1	mg/Kg		64	70 - 130

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

Lab Sample ID: 890-533-1 MSD
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: SS02
Prep Type: Total/NA
Prep Batch: 1889

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.100	0.02470	F1 F2	mg/Kg		25	70 - 130	76	35
Toluene	<0.00200	U F1 F2	0.100	0.03092	F1 F2	mg/Kg		31	70 - 130	61	35
Ethylbenzene	<0.00200	U F1 F2	0.100	0.03394	F1 F2	mg/Kg		34	70 - 130	56	35
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.201	0.07365	F1 F2	mg/Kg		37	70 - 130	53	35
o-Xylene	<0.00200	U F1 F2	0.100	0.03851	F1 F2	mg/Kg		38	70 - 130	50	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-1895/5-A
Matrix: Solid
Analysis Batch: 1905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1895

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/16/21 12:15	04/16/21 19:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/16/21 12:15	04/16/21 19:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/16/21 12:15	04/16/21 19:50	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/16/21 12:15	04/16/21 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*04/16/21 12:15*	*04/16/21 19:50*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/16/21 12:15*	*04/16/21 19:50*	*1*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

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

Lab Sample ID: MB 880-1894/1-A
Matrix: Solid
Analysis Batch: 1923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1894

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		04/16/21 12:09	04/17/21 14:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 14:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 14:55	1
Total TPH	<50.0	U	50.0		mg/Kg		04/16/21 12:09	04/17/21 14:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*04/16/21 12:09*	*04/17/21 14:55*	*1*
o-Terphenyl	*91*		*70 - 130*	*04/16/21 12:09*	*04/17/21 14:55*	*1*

Lab Sample ID: LCS 880-1894/2-A
Matrix: Solid
Analysis Batch: 1923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1894

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1058		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	838.4		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Lab Sample ID: LCSD 880-1894/3-A
Matrix: Solid
Analysis Batch: 1923

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1894

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1107		mg/Kg		111	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	961.7		mg/Kg		96	70 - 130	14	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1944/1-A
Matrix: Solid
Analysis Batch: 2050

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			04/22/21 09:50	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1944/2-A
Matrix: Solid
Analysis Batch: 2050

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	239.5		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-1944/3-A
Matrix: Solid
Analysis Batch: 2050

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	238.7		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

GC VOA

Prep Batch: 1889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-533-1	SS02	Total/NA	Solid	5035	
890-533-2	SS03	Total/NA	Solid	5035	
890-533-3	SS04	Total/NA	Solid	5035	
MB 880-1889/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1889/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1889/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-533-1 MS	SS02	Total/NA	Solid	5035	
890-533-1 MSD	SS02	Total/NA	Solid	5035	

Prep Batch: 1895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1895/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 1905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-533-1	SS02	Total/NA	Solid	8021B	1889
890-533-2	SS03	Total/NA	Solid	8021B	1889
890-533-3	SS04	Total/NA	Solid	8021B	1889
MB 880-1889/5-A	Method Blank	Total/NA	Solid	8021B	1889
MB 880-1895/5-A	Method Blank	Total/NA	Solid	8021B	1895
LCS 880-1889/1-A	Lab Control Sample	Total/NA	Solid	8021B	1889
LCSD 880-1889/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1889
890-533-1 MS	SS02	Total/NA	Solid	8021B	1889
890-533-1 MSD	SS02	Total/NA	Solid	8021B	1889

GC Semi VOA

Prep Batch: 1894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-533-1	SS02	Total/NA	Solid	8015NM Prep	
890-533-2	SS03	Total/NA	Solid	8015NM Prep	
890-533-3	SS04	Total/NA	Solid	8015NM Prep	
MB 880-1894/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1894/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1894/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-533-1	SS02	Total/NA	Solid	8015B NM	1894
890-533-2	SS03	Total/NA	Solid	8015B NM	1894
890-533-3	SS04	Total/NA	Solid	8015B NM	1894
MB 880-1894/1-A	Method Blank	Total/NA	Solid	8015B NM	1894
LCS 880-1894/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1894
LCSD 880-1894/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1894

HPLC/IC

Leach Batch: 1944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-533-1	SS02	Soluble	Solid	DI Leach	
890-533-2	SS03	Soluble	Solid	DI Leach	
890-533-3	SS04	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-533-1
Project/Site: Raider SDG: TE012921039

HPLC/IC (Continued)

Leach Batch: 1944 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1944/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1944/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1944/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-533-1	SS02	Soluble	Solid	300.0	1944
890-533-2	SS03	Soluble	Solid	300.0	1944
890-533-3	SS04	Soluble	Solid	300.0	1944
MB 880-1944/1-A	Method Blank	Soluble	Solid	300.0	1944
LCS 880-1944/2-A	Lab Control Sample	Soluble	Solid	300.0	1944
LCSD 880-1944/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1944

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

Client Sample ID: SS02

Lab Sample ID: 890-533-1

Date Collected: 04/15/21 10:50

Matrix: Solid

Date Received: 04/15/21 14:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1889	04/16/21 11:45	MR	XM
Total/NA	Analysis	8021B		1	1905	04/17/21 07:54	MR	XM
Total/NA	Prep	8015NM Prep			1894	04/16/21 12:09	DM	XM
Total/NA	Analysis	8015B NM		1	1923	04/17/21 21:42	AJ	XM
Soluble	Leach	DI Leach			1944	04/17/21 18:39	CH	XM
Soluble	Analysis	300.0		1	2050	04/22/21 12:58	WP	XM

Client Sample ID: SS03

Lab Sample ID: 890-533-2

Date Collected: 04/15/21 10:55

Matrix: Solid

Date Received: 04/15/21 14:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1889	04/16/21 11:45	MR	XM
Total/NA	Analysis	8021B		1	1905	04/17/21 08:14	MR	XM
Total/NA	Prep	8015NM Prep			1894	04/16/21 12:09	DM	XM
Total/NA	Analysis	8015B NM		1	1923	04/17/21 22:03	AJ	XM
Soluble	Leach	DI Leach			1944	04/17/21 18:39	CH	XM
Soluble	Analysis	300.0		1	2050	04/22/21 13:06	WP	XM

Client Sample ID: SS04

Lab Sample ID: 890-533-3

Date Collected: 04/15/21 11:05

Matrix: Solid

Date Received: 04/15/21 14:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1889	04/16/21 11:45	MR	XM
Total/NA	Analysis	8021B		1	1905	04/17/21 08:35	MR	XM
Total/NA	Prep	8015NM Prep			1894	04/16/21 12:09	DM	XM
Total/NA	Analysis	8015B NM		1	1923	04/17/21 22:25	AJ	XM
Soluble	Leach	DI Leach			1944	04/17/21 18:39	CH	XM
Soluble	Analysis	300.0		1	2050	04/22/21 13:14	WP	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Raider

Job ID: 890-533-1
SDG: TE012921039

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: Raider

Job ID: 890-533-1
SDG: TE012921039

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-533-1	SS02	Solid	04/15/21 10:50	04/15/21 14:19	- 0.5
890-533-2	SS03	Solid	04/15/21 10:55	04/15/21 14:19	- 0.5
890-533-3	SS04	Solid	04/15/21 11:05	04/15/21 14:19	- 0.5

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 1 of 1

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,Tacoma.Morrissey@wsp.com,Dan.Moir@wsp.com

Work Order Comments

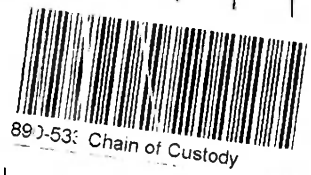
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raider	Turn Around	
Project Number:	TE012921039	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.2/3.0	Thermometer ID	
Received Intact:	(Yes) No	CWM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
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)
SS02	S	4/15/2021	1050	0.5'	1	X	X	X
SS03	S	4/15/2021	1055	0.5'	1	X	X	X
SS04	S	4/15/2021	1105	0.5'	1	X	X	X



Work Order Notes

Incident ID: nAPP2106355755
Cost Center: 1137191001
API: 30-015-44388
Spill date: 2/22/2021

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			14:15 4/19/21	2			4.15.21 1420
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-533-1
SDG Number: TE012921039

Login Number: 533
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-533-1
SDG Number: TE012921039

Login Number: 533
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/16/21 11:42 AM

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

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 28580

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 28580
	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 #NAPP2106355755 RAIDER COMPRESSOR STATION, thank you. This closure is approved.	7/23/2021