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	NAPP2200746777
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Shelby Pennington	Contact Telephone 281-723-9353
Contact email shelby.g.pennington@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.57039 Longitude -103.85194
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Big Eddy Unit DI 30	Site Type Central Tank Battery
Date Release Discovered 12/24/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
I	15	20S	31E	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) 4.22	Volume Recovered (bbls) 2.75
☒ Produced Water	Volume Released (bbls) 4.22	Volume Recovered (bbls) 2.75
	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	Corrsion caused a buried 8" flow line to release fluids on location. A vacuum truck was dispatched to recover standing fluids. A third-party contractor has been retained for remediation activities.	

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200746777
District RP	
Facility ID	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

NA

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

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

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 1/7/21

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Ramona Marcus Date: 1/10/2022

NAPP2200746777

Location:	**BEU DI 30 CTB**	
Spill Date:	**12/24/2021**	
Area 1		
Approximate Area =	2650.00	sq. ft.
Average Saturation (or depth) of spill =	2.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	4.22	bbls
Total Produced Water =	4.22	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**4.22**	**bbls**
Total Produced Water =	**4.22**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**2.75**	**bbls**
Total Produced Water =	**2.75**	**bbls**

Incident ID	NAPP2200746777
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?	< 50 (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	NAPP2200746777
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: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 05/23/2022

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Date:

Incident ID	NAPP2200746777
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 05/23/2022

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

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

Signature: Jennifer Nobui Date: 08/23/2022

May 23, 2022

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

Re: Remediation Work Plan
Big Eddy Unit DI 30
Incident Number NAPP2200746777
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared the following Remediation Work Plan to document the site assessment and soil sampling activities completed to date and propose a method to address the impacted soil identified at the Big Eddy Unit DI 30 (Site), resulting from a release of crude oil and produced water. The following Work Plan proposes lateral and vertical delineation of the release and excavation of the impacted soil.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit I, Section 15, Township 20 South, Range 31 East, in Eddy County, New Mexico (32.57039° N, 103.85194° W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) federal land.

On December 24, 2021, corrosion caused a buried flow line to release approximately 4.22 barrels (bbls) of crude oil and 4.22 bbls of produced water onto the well pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 2.75 bbls of crude oil and 2.75 bbls produced water were recovered. XTO reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on January 7, 2022. The release was assigned Incident Number NAPP2200746777.

SITE CHARATERIZATION AND CLOSURE CRITERIA

The Site was characterized 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). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is less than 50 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest groundwater well with depth to groundwater data is United States Geological Suvery (USGS) well 323421103515501 located approximately 0.8 miles northwest of the Site. The groundwater well has a reported depth to groundwater of 49 feet bgs and a total depth of 106

feet bgs. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland approximately 3,455 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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 AND SAMPLING ACTIVITIES

On February 14, 2022, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Five preliminary assessment soil samples (SS01 through SS05) were collected within and around the release extent from a depth of 0.5 feet bgs to assess the lateral exent of the release. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

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

Laboratory analytical results for preliminary soil samples SS01 and SS02, collected within the release extent indicated that TPH and chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil samples SS03 through SS05, collected around the release extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria, and confirmed the lateral extent of the release. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included in Appendix C. Based on the laboratory analytical results, additional remediation activities were warranted.

EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

On March 23, 2022, remediation contractor personnel returned to the Site to oversee delineation and excavation activites. Upon arrival to the Site, XTO production crews had already completed a 5-foot deep excavation that overlapped a portion of the release extent, in order to access multiple burried flow

lines. Since excavation activities had been partially completed, 5-point composite samples were collected every 200 square feet from the floor and sidewalls of the open 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 floor samples FS01 through FS16 were collected from the floor of the excavation from a depth of 5 feet bgs. Composite sidewall samples SW01 through SW06 were collected from the sidewalls of the excavation from depths ranging from ground surface to 5 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. XTO's ongoing work on the buried flow lines within the open excavation prohibited additional delineation or excavation from being completed at the time. Additional remediation activities will be scheduled once the on-site operations are complete. The excavation extent, excavation soil sample locations, and flow lines were mapped utilizing a handheld GPS and are presented on Figure 3.

Laboratory analytical results for excavation floor samples FS06 through FS13, FS15, and FS16 and excavation sidewall samples SW04 through SW06 indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria and no further remediation was required in these areas. Laboratory analytical results for excavation floor samples FS01 through FS05, and FS14 and excavation sidewall samples SW01 through SW03 indicated that TPH and/or chloride concentrations exceeded the Closure Criteria. Chloride concentrations in these samples ranged from 2,140 mg/kg to 13,700 mg/kg and TPH concentrations ranged from 236 mg/kg to 2,720 mg/kg. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix C. Based on the laboratory analytical results, additional remediation activities are required.

PROPOSED REMEDIATION WORK PLAN

The results from the preliminary assessment and excavation soil samples indicate soil containing elevated TPH and chloride concentrations is present across the approximate 1,800 square foot release area and extends from the ground surface to greater than 5 feet bgs. XTO proposes additional delineation activities to confirm the extent of the release and excavation of the impacted soil to below the Site Closure Criteria.

XTO requests approval to complete the following remediation activities:

- XTO will complete lateral and vertical delineation of the release to below the Site Closure Criteria. The proposed delineation locations are shown on Figure 4.
- Following delineation activities, XTO will proceed with lateral and vertical excavation of the TPH and chloride impacted soil to below the Site Closure Criteria. An estimated 250 cubic yards of impacted soil will be excavated and disposed of at a licensed disposal facility. The estimated excavation extent is shown on Figure 4.
- Following removal of the impacted soil, 5-point composite samples will be collected at least every 200 square feet from the sidewalls and floor of the excavation.
- The delineation and excavation soil samples will be handled as described and submitted for laboratory analysis of BTEX, TPH, and chloride.
- The excavation will be backfilled and recontoured to match pre-existing conditions.
- If impacted soil is identified in areas immediately beneath or adjacent to active production equipment where remediation would require a major facility deconstruction, a deferral request

may be required. Any impacted soil left in-place for deferral will be fully laterally and vertically delineated.

XTO will complete the delineation and excavation activities within 90 days of the date of approval of this Work Plan by the NMOCD. A final report requesting closure or deferral will be submitted within 4 weeks of receipt of final laboratory analytical results.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely,
Ensolum, LLC

Tacoma Morrissey
Senior Geologist

Aimee Cole
Senior Managing Scientist

cc: Adrian Baker, XTO
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Figure 4	Proposed Delineation Locations and Estimated Excavation Extent
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	NMOCD Notifications

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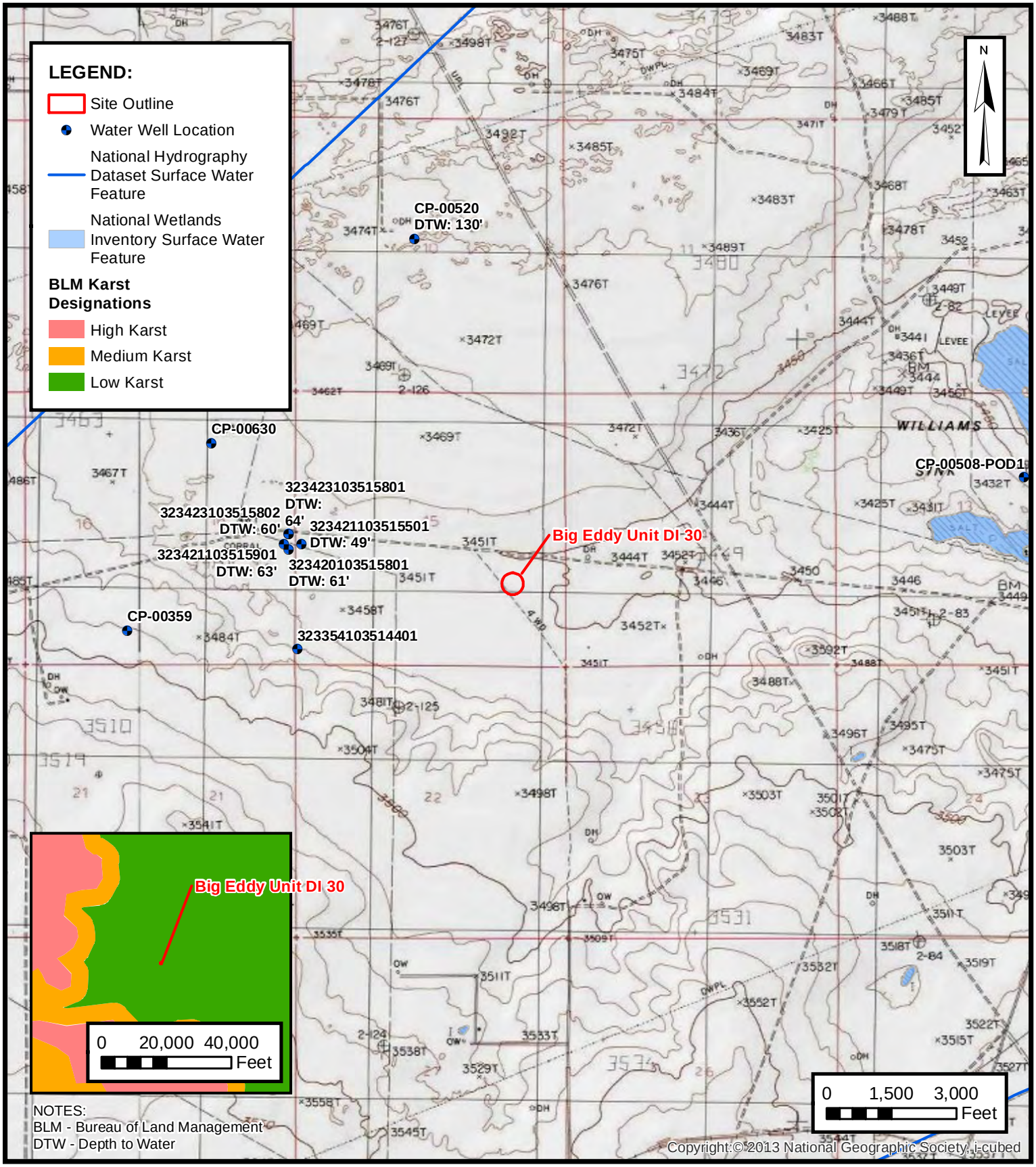
FIGURES



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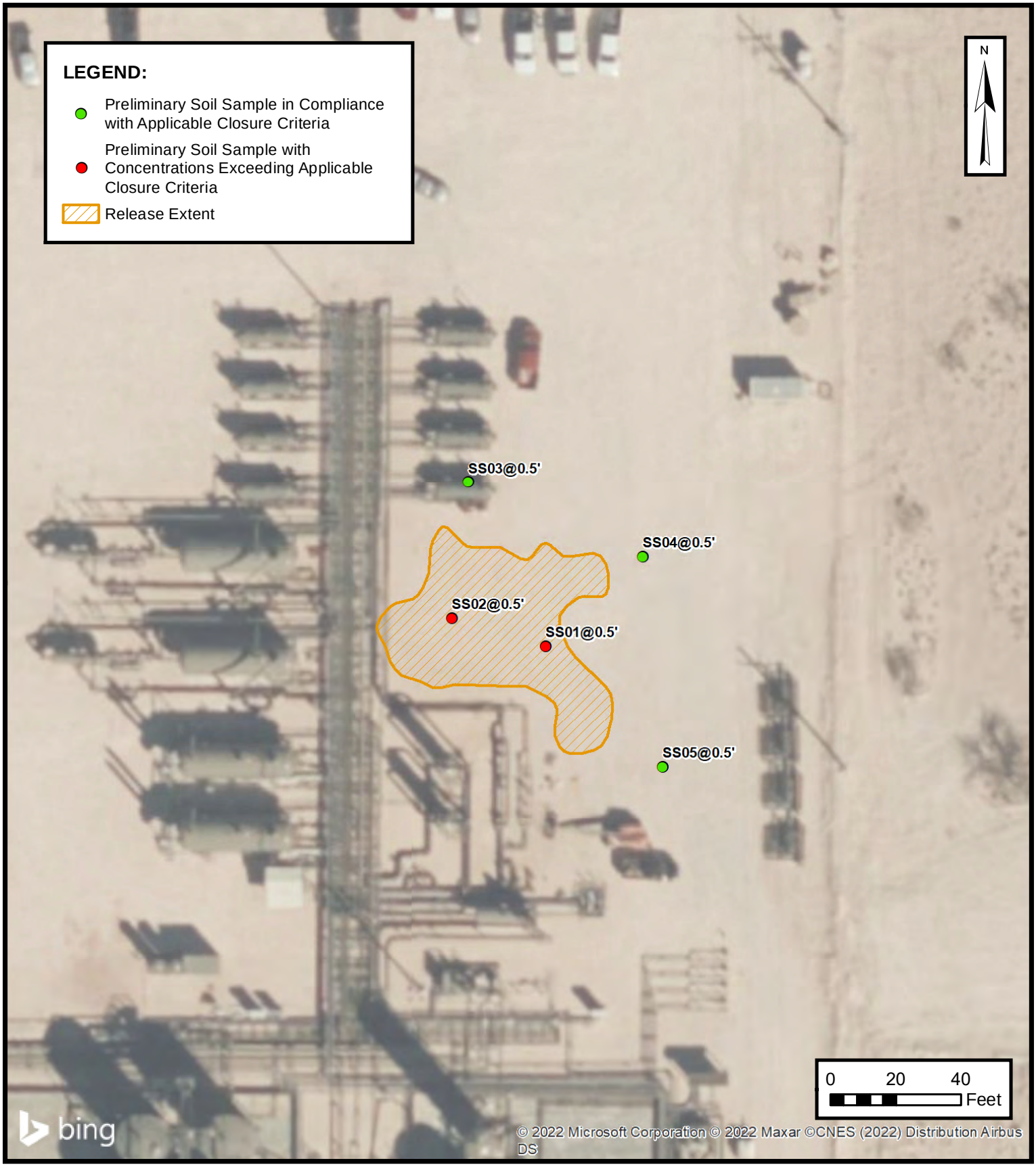
Environmental & Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
BIG EDDY UNIT DI 30
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE
1



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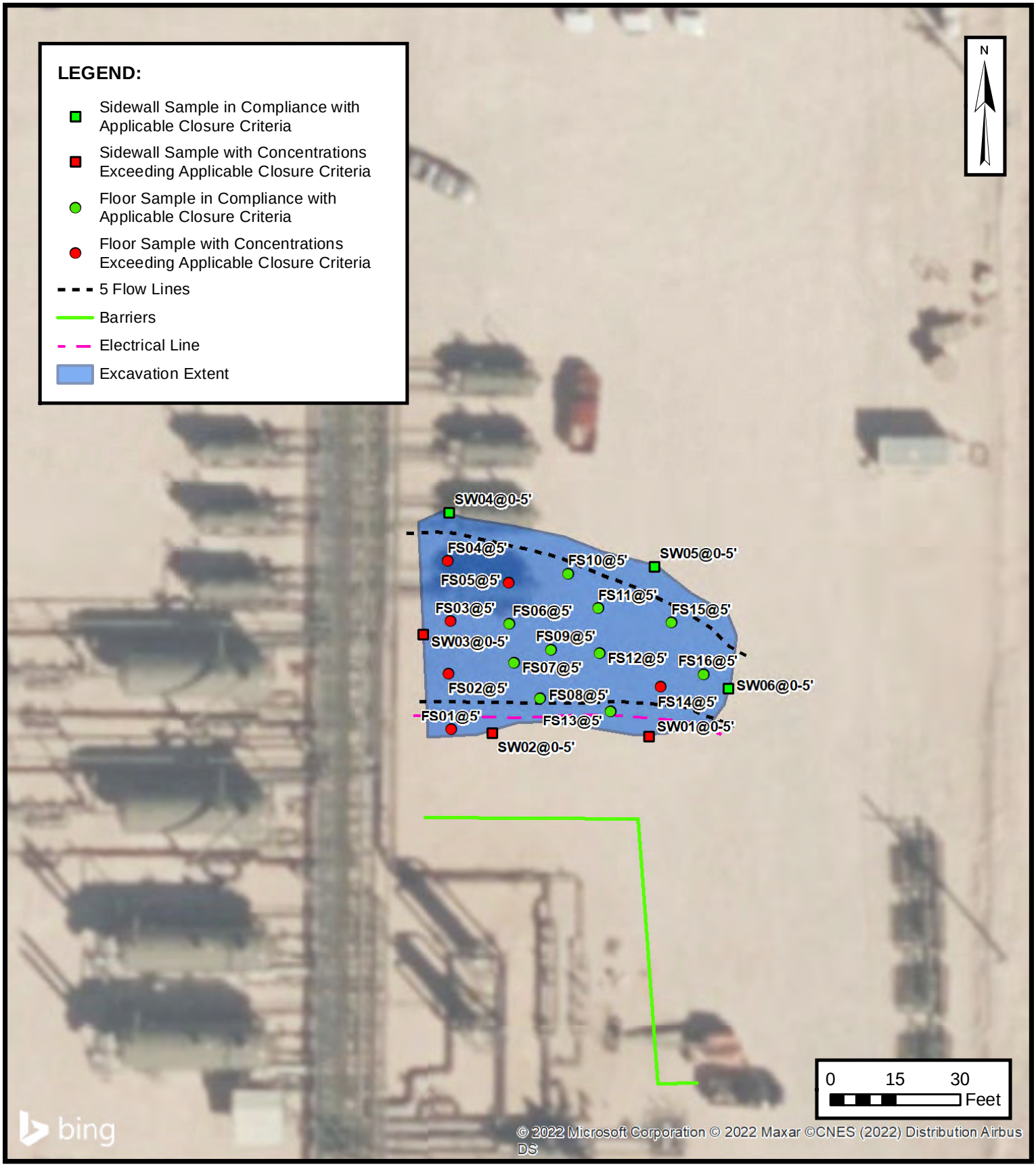
PRELIMINARY SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
BIG EDDY UNIT DI 30
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE
2



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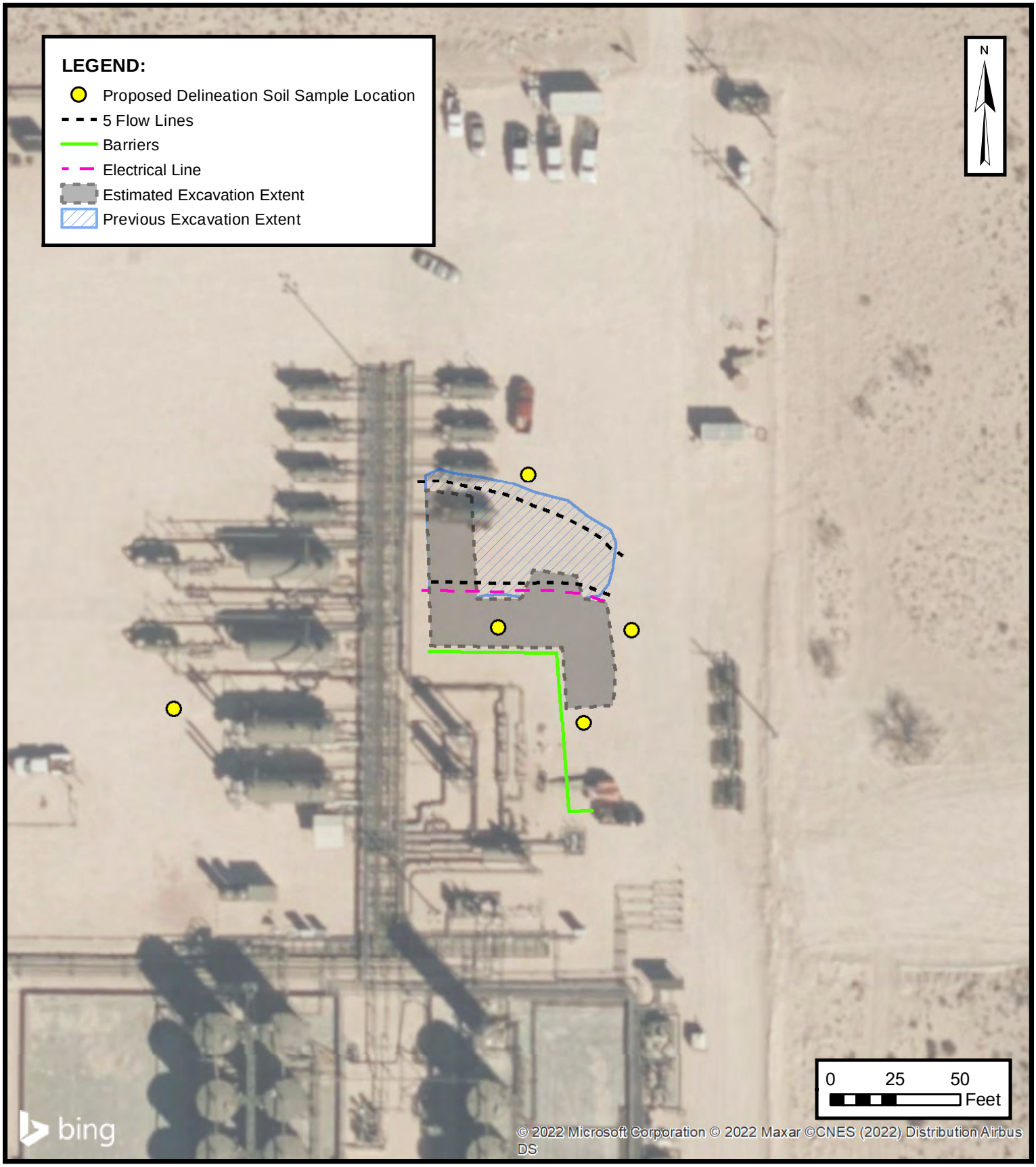
EXCAVATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
BIG EDDY UNIT DI 30
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE
3



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PROPOSED DELINEATION LOCATIONS AND ESTIMATED EXCAVATION EXTENT
XTO ENERGY, INC
BIG EDDY UNIT DI 30
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE
4

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Big Eddy Unit DI 30
XTO Energy, Inc.
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Preliminary Soil Samples										
SS01	02/14/2022	0.5	0.0888	0.0888	<50.0	307	<50.0	307	**307**	**16,700**
SS02	02/14/2022	0.5	0.114	0.114	<49.9	189	<49.9	189	**189**	**23,200**
SS03	02/14/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	267
SS04	02/14/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	176
SS05	02/14/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	280
Excavation Floor Samples										
FS01	03/23/2022	5	<0.00201	0.021	104	2,620	<49.8	2,720	**2,720**	**4,420**
FS02	03/23/2022	5	<0.00199	0.017	68.5	2,100	<50.0	2,170	**2,170**	**8,730**
FS03	03/23/2022	5	<0.00200	0.00506	<49.8	381	<49.8	381	**381**	**5,570**
FS04	03/23/2022	5	<0.00198	<0.00396	<50.0	810	<50.0	810	**810**	**9,530**
FS05	03/23/2022	5	<0.00200	<0.00399	<50.0	236	<50.0	236	**236**	**2,140**
FS06	03/23/2022	5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	339
FS07	03/23/2022	5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	267
FS08	03/23/2022	5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	287
FS09	03/23/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	201
FS10	03/23/2022	5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	176
FS11	03/23/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	134
FS12	03/23/2022	5	<0.00200	0.0662	<50.0	<50.0	<50.0	<50.0	<50.0	413
FS13	03/23/2022	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	352
FS14	03/23/2022	5	<0.00202	<0.00403	<49.9	197	<49.9	197	**197**	**7,720**
FS15	03/23/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	266
FS16	03/23/2022	5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	123

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Big Eddy Unit DI 30
XTO Energy, Inc.
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Excavation Sidewall Samples										
SW01	03/23/2022	0 - 5	<0.00200	0.0148	<50.0	90.8	<50.0	90.8	90.8	**2,120**
SW02	03/23/2022	0 - 5	<0.00201	0.0368	56.9	1,060	<50.0	1,120	**1,120**	**13,700**
SW03	03/23/2022	0 - 5	<0.00200	0.00558	<49.8	515	<49.8	515	**515**	**6,970**
SW04	03/23/2022	0 - 5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	101
SW05	03/23/2022	0 - 5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	95
SW06	03/23/2022	0 - 5	<0.00202	<0.00403	<49.9	72.0	<49.9	72.0	72.0	284

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon

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APPENDIX A

Referenced Well Records

National Water Information System: Web Interface

USGS Water Resources (Cooperator Access) Data Category: Site Information Geographic Area: United States GO

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- Full News

USGS 323421103515501 20S.31E.16.24334

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°34'21", Longitude 103°51'55" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 106 feet
Land surface altitude: 3,459 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	1971-02-02	1994-03-02	7
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

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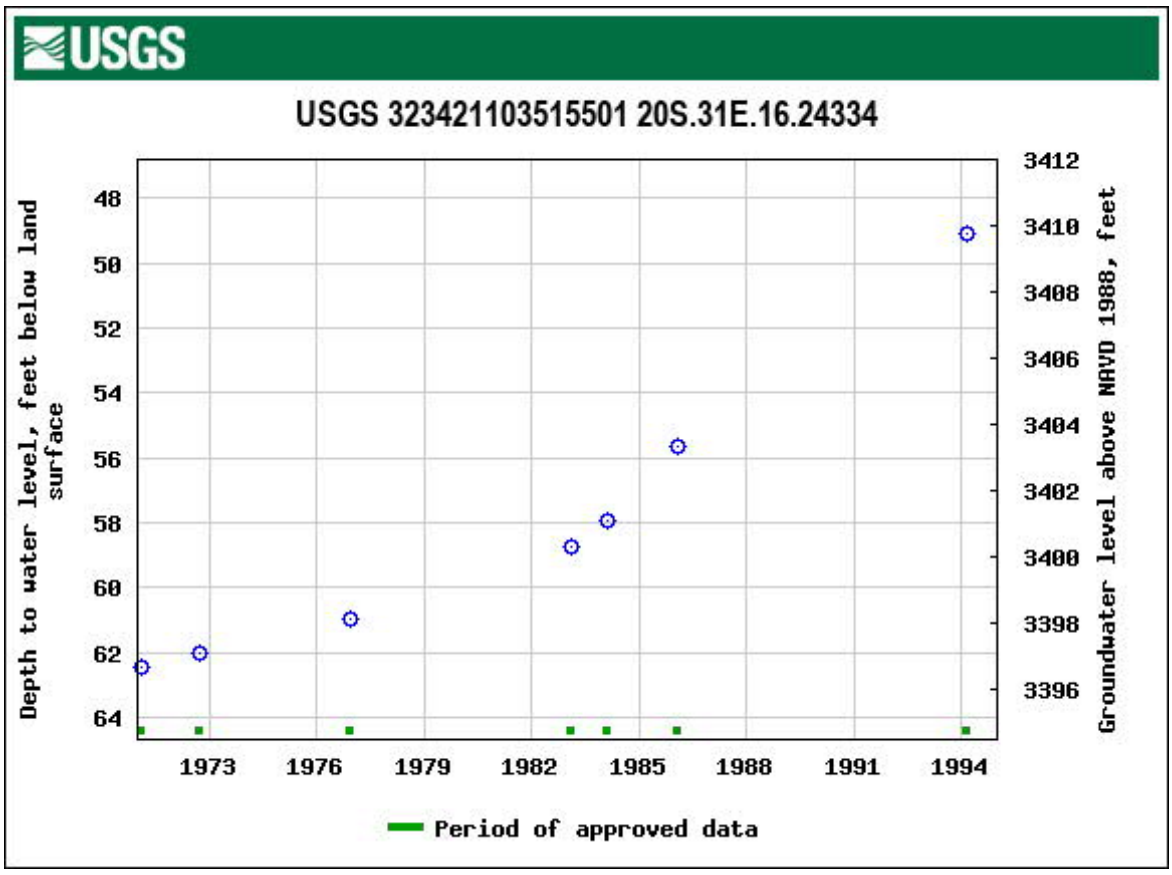
Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323421103515501

Page Last Modified: 2022-02-03 12:20:35 EST
0.26 0.25 caww02


USGS
USGS 323421103515501 20S.31E.16.24334
Depth to water level, feet below land surface
48
50
52
54
56
58
60
62
64
Groundwater level above NAVD 1988, feet
3412
3410
3408
3406
3404
3402
3400
3398
3396
1973
1976
1979
1982
1985
1988
1991
1994
Period of approved data

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: CP 00520 **Subbasin:** CP **Cross Reference:** -

Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: PERRY R. BASS

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	473818	72121	1973-07-18	PMT	LOG	CP 00520	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
CP 00520		Shallow	4	4	1	10	20S	31E	607163	3606278*	

***An (*) after northing value indicates 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	Tws	Rng	X	Y
	CP 00520	4	4	1	10	20S	31E	607163	3606278*

Driller License: 46 **Driller Company:** ABBOTT BROTHERS COMPANY

Driller Name: ABBOTT, MURRELL

Drill Start Date:	07/23/1973	**Drill Finish Date:**	07/25/1973	**Plug Date:**	
Log File Date:	07/31/1973	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	280 feet	**Depth Water:**	130 feet

Water Bearing Stratifications:	Top	Bottom	Description
	176	190	Sandstone/Gravel/Conglomerate

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

ENSOLUM

APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc.
Big Eddy Unit DI 30
Incident Number NAPP2200746777

Photograph 1 Date: Feb 14, 2022
Description: View of release extent facing northwest.

Photograph 2 Date: Feb 14, 2022
Description: View of release extent and active production equipment facing southwest.

Photograph 3 Date: Mar 23, 2022
Description: View of excavation completed by XTO Production, facing west,

Photograph 4 Date: Mar 23, 2022
Description: View of excavation completed by XTO Production, facing south.

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1950-1
Laboratory SDG: 31403236.022.0129 TASK 16.02
Client Project/Site: BEU DI 30

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/25/2022 3:57:26 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: BEU DI 30

Laboratory Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1950-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low 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. Job ID: 890-1950-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

Job ID: 890-1950-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1950-1

Receipt
The samples were received on 2/15/2022 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C

GC VOA
Method 8021B: The following sample was diluted due to the nature of the sample matrix: SS01 (890-1950-1) at 20.0. Elevated reporting limits (RLs) are provided.

Method 8021B: The following sample was diluted due to the nature of the sample matrix: SS02 (890-1950-2) at 20.0. Elevated reporting limits (RLs) are provided.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-1950-1), (MB 880-19554/1-A), (880-11287-A-35-E), (880-11287-A-35-F MS) and (880-11287-A-35-G MSD). Evidence of matrix interferences is not obvious.

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: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Client Sample ID: SS01

Lab Sample ID: 890-1950-1
Matrix: Solid
Date Collected: 02/14/22 04:50
Date Received: 02/15/22 09:25
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0888**		0.0400		mg/Kg		02/24/22 10:19	02/25/22 14:27	20
Toluene	<0.0400	U	0.0400		mg/Kg		02/24/22 10:19	02/25/22 14:27	20
Ethylbenzene	<0.0400	U	0.0400		mg/Kg		02/24/22 10:19	02/25/22 14:27	20
m-Xylene & p-Xylene	<0.0800	U	0.0800		mg/Kg		02/24/22 10:19	02/25/22 14:27	20
o-Xylene	<0.0400	U	0.0400		mg/Kg		02/24/22 10:19	02/25/22 14:27	20
Xylenes, Total	<0.0800	U	0.0800		mg/Kg		02/24/22 10:19	02/25/22 14:27	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*02/24/22 10:19*	*02/25/22 14:27*	*20*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 10:19*	*02/25/22 14:27*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0888**		0.0800		mg/Kg			02/25/22 13:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**307**		50.0		mg/Kg			02/17/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 19:26	1
Diesel Range Organics (Over C10-C28)	**307**		50.0		mg/Kg		02/16/22 08:36	02/16/22 19:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 19:26*	*1*
o-Terphenyl	*77*		*70 - 130*	*02/16/22 08:36*	*02/16/22 19:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16700**		250		mg/Kg			02/20/22 20:33	50

Client Sample ID: SS02

Lab Sample ID: 890-1950-2
Matrix: Solid
Date Collected: 02/14/22 04:52
Date Received: 02/15/22 09:25
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.114**		0.0402		mg/Kg		02/24/22 10:19	02/25/22 14:48	20
Toluene	<0.0402	U	0.0402		mg/Kg		02/24/22 10:19	02/25/22 14:48	20
Ethylbenzene	<0.0402	U	0.0402		mg/Kg		02/24/22 10:19	02/25/22 14:48	20
m-Xylene & p-Xylene	<0.0805	U	0.0805		mg/Kg		02/24/22 10:19	02/25/22 14:48	20
o-Xylene	<0.0402	U	0.0402		mg/Kg		02/24/22 10:19	02/25/22 14:48	20
Xylenes, Total	<0.0805	U	0.0805		mg/Kg		02/24/22 10:19	02/25/22 14:48	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*02/24/22 10:19*	*02/25/22 14:48*	*20*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Client Sample ID: SS02

Date Collected: 02/14/22 04:52
Date Received: 02/15/22 09:25
Sample Depth: 0.5

Lab Sample ID: 890-1950-2

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/24/22 10:19*	*02/25/22 14:48*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.114**		0.0805		mg/Kg			02/25/22 13:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**189**		49.9		mg/Kg			02/17/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/16/22 08:36	02/16/22 19:46	1
Diesel Range Organics (Over C10-C28)	**189**		49.9		mg/Kg		02/16/22 08:36	02/16/22 19:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/16/22 08:36	02/16/22 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*84*		*70 - 130*	*02/16/22 08:36*	*02/16/22 19:46*	*1*
o-Terphenyl	*96*		*70 - 130*	*02/16/22 08:36*	*02/16/22 19:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23200**		253		mg/Kg			02/20/22 20:39	50

Surrogate Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11452-A-21-H MS	Matrix Spike	106	97
880-11452-A-21-I MSD	Matrix Spike Duplicate	102	100
890-1950-1	SS01	83	95
890-1950-2	SS02	66 S1-	96
LCS 880-20196/1-A	Lab Control Sample	102	103
LCSD 880-20196/2-A	Lab Control Sample Dup	100	100
MB 880-20196/5-A	Method Blank	95	95

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-11287-A-35-F MS	Matrix Spike	64 S1-	57 S1-
880-11287-A-35-G MSD	Matrix Spike Duplicate	66 S1-	59 S1-
890-1950-1	SS01	66 S1-	77
890-1950-2	SS02	84	96
LCS 880-19554/2-A	Lab Control Sample	107	111
LCSD 880-19554/3-A	Lab Control Sample Dup	101	103
MB 880-19554/1-A	Method Blank	59 S1-	68 S1-

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20196/5-A
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 10:19	02/25/22 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 10:19*	*02/25/22 11:22*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 10:19*	*02/25/22 11:22*	*1*

Lab Sample ID: LCS 880-20196/1-A
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20196

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1161		mg/Kg		116	70 - 130		
Toluene			0.100	0.1132		mg/Kg		113	70 - 130		
Ethylbenzene			0.100	0.1112		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2292		mg/Kg		115	70 - 130		
o-Xylene			0.100	0.1181		mg/Kg		118	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-20196/2-A
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20196

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1058		mg/Kg		106	70 - 130	9	35
Toluene			0.100	0.1026		mg/Kg		103	70 - 130	10	35
Ethylbenzene			0.100	0.1021		mg/Kg		102	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.2103		mg/Kg		105	70 - 130	9	35
o-Xylene			0.100	0.1046		mg/Kg		105	70 - 130	12	35

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

Lab Sample ID: 880-11452-A-21-H MS
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00202	U	0.0990	0.08009		mg/Kg		81	70 - 130		
Toluene	<0.00202	U	0.0990	0.07921		mg/Kg		80	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

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

Lab Sample ID: 880-11452-A-21-H MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20289 — **Prep Batch: 20196**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.0990	0.07612		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.198	0.1607		mg/Kg		81	70 - 130
o-Xylene	<0.00202	U	0.0990	0.08296		mg/Kg		84	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-11452-A-21-I MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20289 — **Prep Batch: 20196**

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	0.08579		mg/Kg		86	70 - 130	7	35
Toluene	<0.00202	U	0.100	0.08092		mg/Kg		81	70 - 130	2	35
Ethylbenzene	<0.00202	U	0.100	0.07672		mg/Kg		77	70 - 130	1	35
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1576		mg/Kg		79	70 - 130	2	35
o-Xylene	<0.00202	U	0.100	0.07783		mg/Kg		78	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-19554/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

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		02/16/22 08:36	02/16/22 11:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 11:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*59*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*

Lab Sample ID: LCS 880-19554/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	844.6		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)			1000	909.4		mg/Kg		91	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

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

Lab Sample ID: LCS 880-19554/2-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19554

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-19554/3-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19554

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	792.3		mg/Kg		79	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	839.6		mg/Kg		84	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 880-11287-A-35-F MS
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19554

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	922.5		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	945.4		mg/Kg		90	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	64	S1-	70 - 130
o-Terphenyl	57	S1-	70 - 130

Lab Sample ID: 880-11287-A-35-G MSD
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19554

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	948.8		mg/Kg		95	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	983.0		mg/Kg		94	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	66	S1-	70 - 130
o-Terphenyl	59	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19776/1-A
Matrix: Solid
Analysis Batch: 19882

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			02/20/22 17:28	1

Lab Sample ID: LCS 880-19776/2-A
Matrix: Solid
Analysis Batch: 19882

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	256.5		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-19776/3-A
Matrix: Solid
Analysis Batch: 19882

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	259.0		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 890-1938-A-6-M MS
Matrix: Solid
Analysis Batch: 19882

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	89.9		250	327.9		mg/Kg		95	90 - 110		

Lab Sample ID: 890-1938-A-6-N MSD
Matrix: Solid
Analysis Batch: 19882

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	89.9		250	340.5		mg/Kg		100	90 - 110	4	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

GC VOA

Prep Batch: 20196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Total/NA	Solid	5035	
890-1950-2	SS02	Total/NA	Solid	5035	
MB 880-20196/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20196/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20196/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11452-A-21-H MS	Matrix Spike	Total/NA	Solid	5035	
880-11452-A-21-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Total/NA	Solid	8021B	20196
890-1950-2	SS02	Total/NA	Solid	8021B	20196
MB 880-20196/5-A	Method Blank	Total/NA	Solid	8021B	20196
LCS 880-20196/1-A	Lab Control Sample	Total/NA	Solid	8021B	20196
LCSD 880-20196/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20196
880-11452-A-21-H MS	Matrix Spike	Total/NA	Solid	8021B	20196
880-11452-A-21-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20196

Analysis Batch: 20325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Total/NA	Solid	Total BTEX	
890-1950-2	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Total/NA	Solid	8015NM Prep	
890-1950-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Total/NA	Solid	8015B NM	19554
890-1950-2	SS02	Total/NA	Solid	8015B NM	19554
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015B NM	19554
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19554
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19554
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015B NM	19554
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19554

Analysis Batch: 19719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Total/NA	Solid	8015 NM	
890-1950-2	SS02	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

HPLC/IC

Leach Batch: 19776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Soluble	Solid	DI Leach	
890-1950-2	SS02	Soluble	Solid	DI Leach	
MB 880-19776/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1950-1	SS01	Soluble	Solid	300.0	19776
890-1950-2	SS02	Soluble	Solid	300.0	19776
MB 880-19776/1-A	Method Blank	Soluble	Solid	300.0	19776
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	300.0	19776
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19776
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	300.0	19776
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19776

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Client Sample ID: SS01

Date Collected: 02/14/22 04:50
Date Received: 02/15/22 09:25

Lab Sample ID: 890-1950-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20196	02/24/22 10:19	KL	XEN MID
Total/NA	Analysis	8021B		20	20289	02/25/22 14:27	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20325	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	19719	02/17/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			19554	02/16/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	19566	02/16/22 19:26	AJ	XEN MID
Soluble	Leach	DI Leach			19776	02/17/22 21:54	CH	XEN MID
Soluble	Analysis	300.0		50	19882	02/20/22 20:33	CH	XEN MID

Client Sample ID: SS02

Date Collected: 02/14/22 04:52
Date Received: 02/15/22 09:25

Lab Sample ID: 890-1950-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20196	02/24/22 10:19	KL	XEN MID
Total/NA	Analysis	8021B		20	20289	02/25/22 14:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20325	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	19719	02/17/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			19554	02/16/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	19566	02/16/22 19:46	AJ	XEN MID
Soluble	Leach	DI Leach			19776	02/17/22 21:54	CH	XEN MID
Soluble	Analysis	300.0		50	19882	02/20/22 20:39	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1950-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1950-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

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

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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1950-1
SDG: 31403236.022.0129 TASK 16.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1950-1	SS01	Solid	02/14/22 04:50	02/15/22 09:25	0.5
890-1950-2	SS02	Solid	02/14/22 04:52	02/15/22 09:25	0.5

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

2/25/2022

Project Manager:	Kalei Jennings	Bill to: (if different)	Amy Ruth
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	amy.ruth@exxonmobil.com,aimee.cole@wsp.com

Work Order Comments

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

Project Name:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129 Task 16.02	Routine	☑
P.O. Number:	NAPP2200746777	Rush:	
Sampler's Name:	Mercy Rotich.	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.6/2.4	Thermometer ID	TNM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.7
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)
SS01	S	02/14/22	4:50	0.5'	1	X	X	X
SS02	S	02/14/22	4:52	0.5'	1	X	X	X

890-1950 Chain of Custody

Work Order Notes

CC: 2096141001

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

Sample Comments

Discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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		2.15.22 0925	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1950-1
SDG Number: 31403236.022.0129 TASK 16.02

Login Number: 1950
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: 890-1950-1
SDG Number: 31403236.022.0129 TASK 16.02

Login Number: 1950
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 02/16/22 12:10 PM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1949-1
Laboratory SDG: 31403236.022.0129 TASK 16.02
Client Project/Site: BEU DI 30

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/24/2022 6:47:23 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: BEU DI 30

Laboratory Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1949-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low 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: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

Job ID: 890-1949-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1949-1

Receipt
The sample was received on 2/15/2022 9:25 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS03 (890-1949-1), (MB 880-19554/1-A), (880-11287-A-35-E), (880-11287-A-35-F MS) and (880-11287-A-35-G MSD). Evidence of matrix interferences is not obvious.

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: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

Client Sample ID: SS03

Date Collected: 02/14/22 04:56
Date Received: 02/15/22 09:25
Sample Depth: 0.5

Lab Sample ID: 890-1949-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:30	02/24/22 14:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:30	02/24/22 14:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:30	02/24/22 14:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/24/22 10:30	02/24/22 14:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:30	02/24/22 14:46	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/24/22 10:30	02/24/22 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/24/22 10:30*	*02/24/22 14:46*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 10:30*	*02/24/22 14:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/24/22 16:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/17/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 19:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 19:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 19:05*	*1*
o-Terphenyl	*78*		*70 - 130*	*02/16/22 08:36*	*02/16/22 19:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**267**		4.99		mg/Kg			02/20/22 20:27	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

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)
890-1948-A-1-J MS	Matrix Spike	97	97
890-1948-A-1-K MSD	Matrix Spike Duplicate	98	98
890-1949-1	SS03	101	95
LCS 880-19723/1-A	Lab Control Sample	97	97
LCSD 880-19723/2-A	Lab Control Sample Dup	99	98
MB 880-19723/5-A	Method Blank	99	95

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)
880-11287-A-35-F MS	Matrix Spike	64 S1-	57 S1-
880-11287-A-35-G MSD	Matrix Spike Duplicate	66 S1-	59 S1-
890-1949-1	SS03	69 S1-	78
LCS 880-19554/2-A	Lab Control Sample	107	111
LCSD 880-19554/3-A	Lab Control Sample Dup	101	103
MB 880-19554/1-A	Method Blank	59 S1-	68 S1-

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19723

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*

Lab Sample ID: LCS 880-19723/1-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19723

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1025		mg/Kg		103	70 - 130		
Toluene			0.100	0.1011		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09945		mg/Kg		99	70 - 130		
m-Xylene & p-Xylene			0.200	0.2055		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.09841		mg/Kg		98	70 - 130		

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

Lab Sample ID: LCSD 880-19723/2-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19723

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1127		mg/Kg		113	70 - 130	9	35
Toluene			0.100	0.1117		mg/Kg		112	70 - 130	10	35
Ethylbenzene			0.100	0.1097		mg/Kg		110	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2288		mg/Kg		114	70 - 130	11	35
o-Xylene			0.100	0.1101		mg/Kg		110	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-1948-A-1-J MS
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.0996	0.1097		mg/Kg		110	70 - 130		
Toluene	<0.00200	U	0.0996	0.1098		mg/Kg		110	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

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

Lab Sample ID: 890-1948-A-1-J MS
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.0996	0.1061		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2214		mg/Kg		111	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1059		mg/Kg		106	70 - 130

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

Lab Sample ID: 890-1948-A-1-K MSD
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1099		mg/Kg		110	70 - 130	0	35
Toluene	<0.00200	U	0.100	0.1088		mg/Kg		109	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.100	0.1059		mg/Kg		106	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2203		mg/Kg		110	70 - 130	1	35
o-Xylene	<0.00200	U	0.100	0.1056		mg/Kg		106	70 - 130	0	35

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

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

Lab Sample ID: MB 880-19554/1-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19554

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		02/16/22 08:36	02/16/22 11:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 11:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*59*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*

Lab Sample ID: LCS 880-19554/2-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19554

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	844.6		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)			1000	909.4		mg/Kg		91	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

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

Lab Sample ID: LCS 880-19554/2-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19554

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-19554/3-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19554

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	792.3		mg/Kg		79	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	839.6		mg/Kg		84	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 880-11287-A-35-F MS
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19554

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	922.5		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	945.4		mg/Kg		90	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	64	S1-	70 - 130
o-Terphenyl	57	S1-	70 - 130

Lab Sample ID: 880-11287-A-35-G MSD
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19554

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	948.8		mg/Kg		95	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	983.0		mg/Kg		94	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	66	S1-	70 - 130
o-Terphenyl	59	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19776/1-A
Matrix: Solid
Analysis Batch: 19882

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			02/20/22 17:28	1

Lab Sample ID: LCS 880-19776/2-A
Matrix: Solid
Analysis Batch: 19882

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	256.5		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-19776/3-A
Matrix: Solid
Analysis Batch: 19882

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	259.0		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 890-1938-A-6-M MS
Matrix: Solid
Analysis Batch: 19882

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	89.9		250	327.9		mg/Kg		95	90 - 110		

Lab Sample ID: 890-1938-A-6-N MSD
Matrix: Solid
Analysis Batch: 19882

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	89.9		250	340.5		mg/Kg		100	90 - 110	4	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

GC VOA

Prep Batch: 19723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Total/NA	Solid	5035	
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19723/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19723/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1948-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
890-1948-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Total/NA	Solid	8021B	19723
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
LCS 880-19723/1-A	Lab Control Sample	Total/NA	Solid	8021B	19723
LCSD 880-19723/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19723
890-1948-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	19723
890-1948-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19723

Analysis Batch: 20263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Total/NA	Solid	8015B NM	19554
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015B NM	19554
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19554
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19554
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015B NM	19554
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19554

Analysis Batch: 19718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Soluble	Solid	DI Leach	
MB 880-19776/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1949-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

HPLC/IC (Continued)

Leach Batch: 19776 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1949-1	SS03	Soluble	Solid	300.0	19776
MB 880-19776/1-A	Method Blank	Soluble	Solid	300.0	19776
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	300.0	19776
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19776
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	300.0	19776
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19776

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

Client Sample ID: SS03

Date Collected: 02/14/22 04:56
Date Received: 02/15/22 09:25

Lab Sample ID: 890-1949-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19723	02/24/22 10:30	KL	XEN MID
Total/NA	Analysis	8021B		1	20184	02/24/22 14:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20263	02/24/22 16:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	19718	02/17/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			19554	02/16/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	19566	02/16/22 19:05	AJ	XEN MID
Soluble	Leach	DI Leach			19776	02/17/22 21:54	CH	XEN MID
Soluble	Analysis	300.0		1	19882	02/20/22 20:27	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1949-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1949-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

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

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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1949-1
SDG: 31403236.022.0129 TASK 16.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1949-1	SS03	Solid	02/14/22 04:56	02/15/22 09:25	0.5

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Chain of Custody

XENCO LABORATORIES

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

Work Order No: ____________

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2/24/2022

Project Manager:	Kalei Jennings	Bill to: (if different)	Amy Ruth
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	amy.ruth@exxonmobil.com,aimee.cole@wsp.com

Work Order Comments

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

		Turn Around	
Project Name:	BEU DI 30		
Project Number:	31403236.022.0129 Task 16.02	Routine	✓
P.O. Number:	NAPP2200746777	Rush:	
Sampler's Name:	Mercy Rotich.	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.6/0.4	Thermometer ID	TNM-037
Received Intact:	(Yes) No		
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)	Sample Comments
SS03	S	02/14/22	4:56	0.5'	1	X	X	X	Discrete

Work Order Notes

CC: 2096141001

890-1949 Chain of Custody

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	[signature]	2.15.22 0925	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018 1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1949-1
SDG Number: 31403236.022.0129 TASK 16.02

Login Number: 1949
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: 890-1949-1
SDG Number: 31403236.022.0129 TASK 16.02

Login Number: 1949
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 02/16/22 12:10 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1948-1
Laboratory SDG: 31403236.022.0129 TASK 16.02
Client Project/Site: BEU DI 30

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/24/2022 6:47:23 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: BEU DI 30

Laboratory Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1948-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low 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: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

Job ID: 890-1948-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1948-1

Receipt
The sample was received on 2/15/2022 9:25 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS04 (890-1948-1), (MB 880-19554/1-A), (880-11287-A-35-E), (880-11287-A-35-F MS) and (880-11287-A-35-G MSD). Evidence of matrix interferences is not obvious.

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: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

Client Sample ID: SS04

Date Collected: 02/14/22 05:00
Date Received: 02/15/22 09:25
Sample Depth: 0.5

Lab Sample ID: 890-1948-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/24/22 07:45	02/24/22 11:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/24/22 07:45	02/24/22 11:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:32*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/24/22 16:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/17/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 18:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 18:45	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 18:45*	*1*
o-Terphenyl	*75*		*70 - 130*	*02/16/22 08:36*	*02/16/22 18:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**176**		4.95		mg/Kg			02/20/22 20:20	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

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)
890-1948-1	SS04	97	95
890-1948-1 MS	SS04	97	97
890-1948-1 MSD	SS04	98	98
LCS 880-19723/1-A	Lab Control Sample	97	97
LCSD 880-19723/2-A	Lab Control Sample Dup	99	98
MB 880-19723/5-A	Method Blank	99	95

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)
880-11287-A-35-F MS	Matrix Spike	64 S1-	57 S1-
880-11287-A-35-G MSD	Matrix Spike Duplicate	66 S1-	59 S1-
890-1948-1	SS04	66 S1-	75
LCS 880-19554/2-A	Lab Control Sample	107	111
LCSD 880-19554/3-A	Lab Control Sample Dup	101	103
MB 880-19554/1-A	Method Blank	59 S1-	68 S1-

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19723

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*

Lab Sample ID: LCS 880-19723/1-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19723

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1025		mg/Kg		103	70 - 130		
Toluene			0.100	0.1011		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09945		mg/Kg		99	70 - 130		
m-Xylene & p-Xylene			0.200	0.2055		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.09841		mg/Kg		98	70 - 130		

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

Lab Sample ID: LCSD 880-19723/2-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19723

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1127		mg/Kg		113	70 - 130	9	35
Toluene			0.100	0.1117		mg/Kg		112	70 - 130	10	35
Ethylbenzene			0.100	0.1097		mg/Kg		110	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2288		mg/Kg		114	70 - 130	11	35
o-Xylene			0.100	0.1101		mg/Kg		110	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-1948-1 MS
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: SS04
Prep Type: Total/NA
Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.0996	0.1097		mg/Kg		110	70 - 130		
Toluene	<0.00200	U	0.0996	0.1098		mg/Kg		110	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

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

Lab Sample ID: 890-1948-1 MS
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: SS04
Prep Type: Total/NA
Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.0996	0.1061		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2214		mg/Kg		111	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1059		mg/Kg		106	70 - 130

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

Lab Sample ID: 890-1948-1 MSD
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: SS04
Prep Type: Total/NA
Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1099		mg/Kg		110	70 - 130	0	35
Toluene	<0.00200	U	0.100	0.1088		mg/Kg		109	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.100	0.1059		mg/Kg		106	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2203		mg/Kg		110	70 - 130	1	35
o-Xylene	<0.00200	U	0.100	0.1056		mg/Kg		106	70 - 130	0	35

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

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

Lab Sample ID: MB 880-19554/1-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19554

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		02/16/22 08:36	02/16/22 11:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/16/22 08:36	02/16/22 11:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/16/22 08:36	02/16/22 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*59*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*

Lab Sample ID: LCS 880-19554/2-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19554

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	844.6		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	909.4		mg/Kg		91	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

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

Lab Sample ID: LCS 880-19554/2-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19554

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-19554/3-A
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19554

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	792.3		mg/Kg		79	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	839.6		mg/Kg		84	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 880-11287-A-35-F MS
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19554

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	922.5		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	945.4		mg/Kg		90	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	64	S1-	70 - 130
o-Terphenyl	57	S1-	70 - 130

Lab Sample ID: 880-11287-A-35-G MSD
Matrix: Solid
Analysis Batch: 19566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19554

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	948.8		mg/Kg		95	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	983.0		mg/Kg		94	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	66	S1-	70 - 130
o-Terphenyl	59	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19776/1-A
Matrix: Solid
Analysis Batch: 19882

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			02/20/22 17:28	1

Lab Sample ID: LCS 880-19776/2-A
Matrix: Solid
Analysis Batch: 19882

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	256.5		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-19776/3-A
Matrix: Solid
Analysis Batch: 19882

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	259.0		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 890-1938-A-6-M MS
Matrix: Solid
Analysis Batch: 19882

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	89.9		250	327.9		mg/Kg		95	90 - 110		

Lab Sample ID: 890-1938-A-6-N MSD
Matrix: Solid
Analysis Batch: 19882

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	89.9		250	340.5		mg/Kg		100	90 - 110	4	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

GC VOA

Prep Batch: 19723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Total/NA	Solid	5035	
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19723/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19723/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1948-1 MS	SS04	Total/NA	Solid	5035	
890-1948-1 MSD	SS04	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Total/NA	Solid	8021B	19723
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
LCS 880-19723/1-A	Lab Control Sample	Total/NA	Solid	8021B	19723
LCSD 880-19723/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19723
890-1948-1 MS	SS04	Total/NA	Solid	8021B	19723
890-1948-1 MSD	SS04	Total/NA	Solid	8021B	19723

Analysis Batch: 20260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Total/NA	Solid	8015B NM	19554
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015B NM	19554
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19554
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19554
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015B NM	19554
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19554

Analysis Batch: 19717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Soluble	Solid	DI Leach	
MB 880-19776/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1948-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

HPLC/IC (Continued)

Leach Batch: 19776 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1948-1	SS04	Soluble	Solid	300.0	19776
MB 880-19776/1-A	Method Blank	Soluble	Solid	300.0	19776
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	300.0	19776
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19776
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	300.0	19776
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19776

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

Client Sample ID: SS04
Date Collected: 02/14/22 05:00
Date Received: 02/15/22 09:25

Lab Sample ID: 890-1948-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19723	02/24/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	20184	02/24/22 11:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20260	02/24/22 16:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	19717	02/17/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			19554	02/16/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	19566	02/16/22 18:45	AJ	XEN MID
Soluble	Leach	DI Leach			19776	02/17/22 21:54	CH	XEN MID
Soluble	Analysis	300.0		1	19882	02/20/22 20:20	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1948-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1948-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK 16.02

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

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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1948-1
SDG: 31403236.022.0129 TASK 16.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1948-1	SS04	Solid	02/14/22 05:00	02/15/22 09:25	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

2/24/2022

Project Manager:	Kalei Jennings	Bill to: (if different)	Amy Ruth
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	amy.ruth@exxonmobil.com,aimee.cole@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:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129 Task 16.02	Routine	☑
P.O. Number:	NAPP2200746777	Rush:	
Sampler's Name:	Mercy Rotich.	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.4/0.4	Thermometer ID	TMH-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)
SS04	S	02/14/22	5:00	0.5'	1	X	X	X

890-1948 Chain of Custody

Work Order Notes

CC: 2096141001

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

Sample Comments

Discrete

Total 200.7 / 6010 **200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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			2.15.22 0925			
3				4		
5				6		

Revised Date 051418 Rev 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1948-1
SDG Number: 31403236.022.0129 TASK 16.02

Login Number: 1948
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: 890-1948-1
SDG Number: 31403236.022.0129 TASK 16.02

Login Number: 1948
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 02/16/22 12:10 PM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1947-1
Laboratory SDG: 31403236.022.0129 TASK16.02
Client Project/Site: BEU DI 30

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/25/2022 2:58:06 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: BEU DI 30

Laboratory Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1947-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low 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: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

Job ID: 890-1947-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1947-1

Receipt
The sample was received on 2/15/2022 9:25 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS05 (890-1947-1), (MB 880-19554/1-A), (880-11287-A-35-E), (880-11287-A-35-F MS) and (880-11287-A-35-G MSD). Evidence of matrix interferences is not obvious.

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: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SS05

Date Collected: 02/14/22 05:10
Date Received: 02/15/22 09:25
Sample Depth: 0.5

Lab Sample ID: 890-1947-1

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		02/24/22 09:39	02/25/22 00:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/24/22 09:39	02/25/22 00:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/24/22 09:39	02/25/22 00:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/24/22 09:39	02/25/22 00:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/24/22 09:39	02/25/22 00:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/24/22 09:39	02/25/22 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/24/22 09:39*	*02/25/22 00:57*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/24/22 09:39*	*02/25/22 00:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/25/22 13:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/17/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/16/22 08:36	02/16/22 18:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/16/22 08:36	02/16/22 18:24	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/16/22 08:36	02/16/22 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 18:24*	*1*
o-Terphenyl	*79*		*70 - 130*	*02/16/22 08:36*	*02/16/22 18:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**280**		24.9		mg/Kg			02/20/22 20:14	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

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)
880-11351-A-1-C MS	Matrix Spike	101	99
880-11351-A-1-D MSD	Matrix Spike Duplicate	104	100
890-1947-1	SS05	118	90
LCS 880-20192/1-A	Lab Control Sample	102	99
LCSD 880-20192/2-A	Lab Control Sample Dup	104	101
MB 880-19723/5-A	Method Blank	99	95
MB 880-20192/5-A	Method Blank	98	94

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)
880-11287-A-35-F MS	Matrix Spike	64 S1-	57 S1-
880-11287-A-35-G MSD	Matrix Spike Duplicate	66 S1-	59 S1-
890-1947-1	SS05	69 S1-	79
LCS 880-19554/2-A	Lab Control Sample	107	111
LCSD 880-19554/3-A	Lab Control Sample Dup	101	103
MB 880-19554/1-A	Method Blank	59 S1-	68 S1-

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19723

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*

Lab Sample ID: MB 880-20192/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20192

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 09:39	02/24/22 22:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/24/22 09:39*	*02/24/22 22:54*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/24/22 09:39*	*02/24/22 22:54*	*1*

Lab Sample ID: LCS 880-20192/1-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1094		mg/Kg		109	70 - 130		
Toluene			0.100	0.1080		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1082		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2226		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1088		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-20192/2-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1056		mg/Kg		106	70 - 130	4	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: LCSD 880-20192/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20184 — **Prep Batch: 20192**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1044		mg/Kg		104	70 - 130	3	35
Ethylbenzene			0.100	0.1037		mg/Kg		104	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2138		mg/Kg		107	70 - 130	4	35
o-Xylene			0.100	0.1055		mg/Kg		105	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-11351-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20184 — **Prep Batch: 20192**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0996	0.1030		mg/Kg		103	70 - 130
Toluene	<0.00199	U	0.0996	0.1018		mg/Kg		102	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.1002		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2090		mg/Kg		105	70 - 130
o-Xylene	<0.00199	U	0.0996	0.1073		mg/Kg		108	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-11351-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 20184 — **Prep Batch: 20192**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.1114		mg/Kg		112	70 - 130	8	35
Toluene	<0.00199	U	0.0998	0.1105		mg/Kg		111	70 - 130	8	35
Ethylbenzene	<0.00199	U	0.0998	0.1094		mg/Kg		110	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2279		mg/Kg		114	70 - 130	9	35
o-Xylene	<0.00199	U	0.0998	0.1154		mg/Kg		116	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-19554/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

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		02/16/22 08:36	02/16/22 11:26	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: MB 880-19554/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 11:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/16/22 08:36	02/16/22 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*59*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/16/22 08:36*	*02/16/22 11:26*	*1*

Lab Sample ID: LCS 880-19554/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	844.6		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	909.4		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Lab Sample ID: LCSD 880-19554/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	792.3		mg/Kg		79	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	839.6		mg/Kg		84	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: 880-11287-A-35-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	922.5		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	945.4		mg/Kg		90	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*57*	*S1-*	*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: 880-11287-A-35-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19566 — **Prep Batch: 19554**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	948.8		mg/Kg		95	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	983.0		mg/Kg		94	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*66*	*S1-*	*70 - 130*
o-Terphenyl	*59*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19776/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19882

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/20/22 17:28	1

Lab Sample ID: LCS 880-19776/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19882

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	256.5		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-19776/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19882

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	259.0		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 890-1938-A-6-M MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19882

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	89.9		250	327.9		mg/Kg		95	90 - 110		

Lab Sample ID: 890-1938-A-6-N MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19882

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	89.9		250	340.5		mg/Kg		100	90 - 110	4	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

GC VOA

Prep Batch: 19723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Total/NA	Solid	8021B	20192
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
MB 880-20192/5-A	Method Blank	Total/NA	Solid	8021B	20192
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	8021B	20192
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20192
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	20192
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20192

Prep Batch: 20192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Total/NA	Solid	5035	
MB 880-20192/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Total/NA	Solid	8015B NM	19554
MB 880-19554/1-A	Method Blank	Total/NA	Solid	8015B NM	19554
LCS 880-19554/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19554
LCSD 880-19554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19554
880-11287-A-35-F MS	Matrix Spike	Total/NA	Solid	8015B NM	19554
880-11287-A-35-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19554

Analysis Batch: 19716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

HPLC/IC

Leach Batch: 19776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Soluble	Solid	DI Leach	
MB 880-19776/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1947-1	SS05	Soluble	Solid	300.0	19776
MB 880-19776/1-A	Method Blank	Soluble	Solid	300.0	19776
LCS 880-19776/2-A	Lab Control Sample	Soluble	Solid	300.0	19776
LCSD 880-19776/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19776
890-1938-A-6-M MS	Matrix Spike	Soluble	Solid	300.0	19776
890-1938-A-6-N MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19776

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SS05

Date Collected: 02/14/22 05:10
Date Received: 02/15/22 09:25

Lab Sample ID: 890-1947-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20192	02/24/22 09:39	KL	XEN MID
Total/NA	Analysis	8021B		1	20184	02/25/22 00:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20323	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	19716	02/17/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			19554	02/16/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	19566	02/16/22 18:24	AJ	XEN MID
Soluble	Leach	DI Leach			19776	02/17/22 21:54	CH	XEN MID
Soluble	Analysis	300.0		5	19882	02/20/22 20:14	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1947-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1947-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

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

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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-1947-1
SDG: 31403236.022.0129 TASK16.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1947-1	SS05	Solid	02/14/22 05:10	02/15/22 09:25	0.5

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

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Project Manager:	Kalei Jennings	Bill to: (if different)	Amy Ruth
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	amy.ruth@exxonmobil.com,aimee.cole@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:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129 Task 16.02	Routine	☑
P.O. Number:	NAPP2200746777	Rush:	
Sampler's Name:	Mercy Rotich.	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	0.6/0.4	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

CC: 2096141001

890-1947 Chain of Custody

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS05	S	02/14/22	5:10	0.5'	1	X	X	X	Discrete

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		2.15.22 0925	2		
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1947-1
SDG Number: 31403236.022.0129 TASK16.02

Login Number: 1947
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: 890-1947-1
SDG Number: 31403236.022.0129 TASK16.02

Login Number: 1947
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 02/16/22 12:10 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2142-1
Laboratory SDG: 31403236.022.0129 TASK16.02
Client Project/Site: BEU DI 30

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
4/8/2022 10:09:07 AM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.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: BEU DI 30

Laboratory Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Job ID: 890-2142-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2142-1

Receipt
The samples were received on 3/28/2022 2:48 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

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-22509 and analytical batch 880-22605 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-22563 and analytical batch 880-22719 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
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-22591 and analytical batch 880-22514 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.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-22521/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-22997 and analytical batch 880-23131 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS01

Lab Sample ID: 890-2142-1
Matrix: Solid
Date Collected: 03/23/22 08:50
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F1	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
Toluene	<0.00201	U F1	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
Ethylbenzene	<0.00201	U F1	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
m-Xylene & p-Xylene	**0.00649**	**F1**	0.00402		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
o-Xylene	**0.0145**	**F1**	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
Xylenes, Total	**0.0210**	**F1**	0.00402		mg/Kg		03/29/22 12:01	04/01/22 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:00*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0210**		0.00402		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2720**		49.8		mg/Kg			03/30/22 10:27	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	**104**	**F1**	49.8		mg/Kg		03/29/22 17:09	03/29/22 20:35	1
Diesel Range Organics (Over C10-C28)	**2620**	**F1**	49.8		mg/Kg		03/29/22 17:09	03/29/22 20:35	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/29/22 17:09*	*03/29/22 20:35*	*1*
o-Terphenyl	*115*		*70 - 130*	*03/29/22 17:09*	*03/29/22 20:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4420**		49.9		mg/Kg			04/02/22 22:11	10

Client Sample ID: FS02

Lab Sample ID: 890-2142-2
Matrix: Solid
Date Collected: 03/23/22 08:55
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
Ethylbenzene	**0.00321**		0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
o-Xylene	**0.0138**		0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
Xylenes, Total	**0.0138**		0.00398		mg/Kg		03/29/22 12:01	04/01/22 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:21*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS02

Date Collected: 03/23/22 08:55
Date Received: 03/28/22 14:48
Sample Depth: 5

Lab Sample ID: 890-2142-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0170**		0.00398	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2170**		50.0	mg/Kg			03/30/22 10:27	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	**68.5**		50.0	mg/Kg		03/29/22 17:09	03/29/22 21:38	1
Diesel Range Organics (Over C10-C28)	**2100**		50.0	mg/Kg		03/29/22 17:09	03/29/22 21:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/29/22 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:38*	*1*
o-Terphenyl	*115*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8730**		99.6	mg/Kg			04/02/22 22:20	20

Client Sample ID: FS03

Date Collected: 03/23/22 09:00
Date Received: 03/28/22 14:48
Sample Depth: 5

Lab Sample ID: 890-2142-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
o-Xylene	**0.00506**		0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
Xylenes, Total	**0.00506**		0.00400	mg/Kg		03/29/22 12:01	04/01/22 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:42*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00506**		0.00400	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**381**		49.8	mg/Kg			03/30/22 10:27	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS03

Date Collected: 03/23/22 09:00
Date Received: 03/28/22 14:48
Sample Depth: 5

Lab Sample ID: 890-2142-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 21:59	1
Diesel Range Organics (Over C10-C28)	**381**		49.8		mg/Kg		03/29/22 17:09	03/29/22 21:59	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:59*	*1*
o-Terphenyl	*124*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5570**		50.0		mg/Kg			04/02/22 22:47	10

Client Sample ID: FS04

Date Collected: 03/23/22 09:05
Date Received: 03/28/22 14:48
Sample Depth: 5

Lab Sample ID: 890-2142-4

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		03/29/22 12:01	04/01/22 04:02	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/29/22 12:01	04/01/22 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:02*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**810**		50.0		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/29/22 22:20	1
Diesel Range Organics (Over C10-C28)	**810**		50.0		mg/Kg		03/29/22 17:09	03/29/22 22:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 22:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:20*	*1*
o-Terphenyl	*128*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:20*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS04

Lab Sample ID: 890-2142-4
Matrix: Solid
Date Collected: 03/23/22 09:05
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9530**		99.0		mg/Kg			04/02/22 22:56	20

Client Sample ID: FS05

Lab Sample ID: 890-2142-5
Matrix: Solid
Date Collected: 03/23/22 09:20
Date Received: 03/28/22 14:48
Sample Depth: 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		03/29/22 12:01	04/01/22 04:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*03/29/22 12:01*	*04/01/22 04:23*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**236**		50.0		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/29/22 22:40	1
Diesel Range Organics (Over C10-C28)	**236**		50.0		mg/Kg		03/29/22 17:09	03/29/22 22:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:40*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2140**		25.2		mg/Kg			04/02/22 23:22	5

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS06

Lab Sample ID: 890-2142-6
Matrix: Solid
Date Collected: 03/23/22 09:25
Date Received: 03/28/22 14:48
Sample Depth: 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		03/29/22 12:01	04/01/22 04:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:44*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 23:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 23:01	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:01*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**339**		4.99		mg/Kg			04/02/22 23:31	1

Client Sample ID: FS07

Lab Sample ID: 890-2142-7
Matrix: Solid
Date Collected: 03/23/22 09:40
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 05:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:04*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS07

Lab Sample ID: 890-2142-7

Date Collected: 03/23/22 09:40
Date Received: 03/28/22 14:48
Sample Depth: 5

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/29/22 23:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/29/22 23:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/29/22 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:22*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**267**		5.01	mg/Kg			04/02/22 23:40	1

Client Sample ID: FS08

Lab Sample ID: 890-2142-8

Date Collected: 03/23/22 09:45
Date Received: 03/28/22 14:48
Sample Depth: 5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/29/22 12:01	04/01/22 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:25*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/30/22 10:27	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS08

Lab Sample ID: 890-2142-8
Matrix: Solid
Date Collected: 03/23/22 09:45
Date Received: 03/28/22 14:48
Sample Depth: 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	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/29/22 23:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/29/22 23:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/29/22 23:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:43*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**287**		4.95		mg/Kg			04/02/22 23:49	1

Client Sample ID: FS09

Lab Sample ID: 890-2142-9
Matrix: Solid
Date Collected: 03/23/22 10:20
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 05:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:46*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 00:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 00:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:04*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:04*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS09

Lab Sample ID: 890-2142-9
Matrix: Solid
Date Collected: 03/23/22 10:20
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201		4.95		mg/Kg			04/02/22 23:58	1

Client Sample ID: FS10

Lab Sample ID: 890-2142-10
Matrix: Solid
Date Collected: 03/23/22 10:25
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 06:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/29/22 12:01*	*04/01/22 06:07*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 06:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 00:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 00:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 00:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:24*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	176		4.96		mg/Kg			04/03/22 00:07	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS11

Lab Sample ID: 890-2142-11
Matrix: Solid
Date Collected: 03/23/22 10:30
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 07:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/29/22 12:01*	*04/01/22 07:31*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 07:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 01:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:06*	*1*
o-Terphenyl	*123*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**134**		5.04		mg/Kg			04/03/22 00:15	1

Client Sample ID: FS12

Lab Sample ID: 890-2142-12
Matrix: Solid
Date Collected: 03/23/22 10:35
Date Received: 03/28/22 14:48
Sample Depth: 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		03/29/22 12:01	04/01/22 08:14	1
Toluene	**0.00365**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
Ethylbenzene	**0.0122**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
m-Xylene & p-Xylene	**0.0125**		0.00400		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
o-Xylene	**0.0378**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
Xylenes, Total	**0.0503**		0.00400		mg/Kg		03/29/22 12:01	04/01/22 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:14*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS12

Lab Sample ID: 890-2142-12
Matrix: Solid
Date Collected: 03/23/22 10:35
Date Received: 03/28/22 14:48
Sample Depth: 5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0662**		0.00400		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 01:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:26*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**413**	**F1**	4.96		mg/Kg			04/08/22 04:49	1

Client Sample ID: FS13

Lab Sample ID: 890-2142-13
Matrix: Solid
Date Collected: 03/23/22 10:45
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 08:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:35*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/30/22 10:27	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS13

Lab Sample ID: 890-2142-13
Matrix: Solid
Date Collected: 03/23/22 10:45
Date Received: 03/28/22 14:48
Sample Depth: 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	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 01:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 01:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:47*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**352**		5.00		mg/Kg			04/08/22 05:06	1

Client Sample ID: FS14

Lab Sample ID: 890-2142-14
Matrix: Solid
Date Collected: 03/23/22 10:50
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 08:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:56*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**197**		49.9		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 02:07	1
Diesel Range Organics (Over C10-C28)	**197**		49.9		mg/Kg		03/29/22 17:09	03/30/22 02:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:07*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:07*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS14

Lab Sample ID: 890-2142-14
Matrix: Solid
Date Collected: 03/23/22 10:50
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7720		49.9		mg/Kg			04/08/22 05:12	10

Client Sample ID: FS15

Lab Sample ID: 890-2142-15
Matrix: Solid
Date Collected: 03/23/22 10:55
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 09:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:16*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 02:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 02:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:28*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	266		4.96		mg/Kg			04/08/22 05:17	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS16

Lab Sample ID: 890-2142-16
Matrix: Solid
Date Collected: 03/23/22 11:05
Date Received: 03/28/22 14:48
Sample Depth: 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		03/29/22 12:01	04/01/22 09:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 09:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:37*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 02:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 02:48	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:48*	*1*
o-Terphenyl	*125*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**123**		5.04		mg/Kg			04/08/22 05:23	1

Client Sample ID: SW01

Lab Sample ID: 890-2142-17
Matrix: Solid
Date Collected: 03/23/22 11:50
Date Received: 03/28/22 14:48
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		03/29/22 12:01	04/01/22 09:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
Ethylbenzene	**0.00255**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
o-Xylene	**0.0122**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
Xylenes, Total	**0.0122**		0.00400		mg/Kg		03/29/22 12:01	04/01/22 09:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:58*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW01

Lab Sample ID: 890-2142-17
Matrix: Solid
Date Collected: 03/23/22 11:50
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0148**		0.00400	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**90.8**		50.0	mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 03:08	1
Diesel Range Organics (Over C10-C28)	**90.8**		50.0	mg/Kg		03/29/22 17:09	03/30/22 03:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/30/22 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:08*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2120**		25.0	mg/Kg			04/08/22 05:40	5

Client Sample ID: SW02

Lab Sample ID: 890-2142-18
Matrix: Solid
Date Collected: 03/23/22 11:55
Date Received: 03/28/22 14:48
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		03/29/22 12:01	04/01/22 10:19	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
Ethylbenzene	**0.00843**		0.00201	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
m-Xylene & p-Xylene	**0.0111**		0.00402	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
o-Xylene	**0.0173**		0.00201	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
Xylenes, Total	**0.0284**		0.00402	mg/Kg		03/29/22 12:01	04/01/22 10:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:19*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0368**		0.00402	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1120**		50.0	mg/Kg			03/30/22 10:27	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW02

Lab Sample ID: 890-2142-18
Matrix: Solid
Date Collected: 03/23/22 11:55
Date Received: 03/28/22 14:48
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	**56.9**		50.0		mg/Kg		03/29/22 17:09	03/30/22 03:29	1
Diesel Range Organics (Over C10-C28)	**1060**		50.0		mg/Kg		03/29/22 17:09	03/30/22 03:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:29*	*1*
o-Terphenyl	*113*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13700**		99.0		mg/Kg			04/08/22 05:46	20

Client Sample ID: SW03

Lab Sample ID: 890-2142-19
Matrix: Solid
Date Collected: 03/23/22 12:05
Date Received: 03/28/22 14:48
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		03/29/22 12:01	04/01/22 10:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
o-Xylene	**0.00558**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
Xylenes, Total	**0.00558**		0.00401		mg/Kg		03/29/22 12:01	04/01/22 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:39*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00558**		0.00401		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**515**		49.8		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 03:49	1
Diesel Range Organics (Over C10-C28)	**515**		49.8		mg/Kg		03/29/22 17:09	03/30/22 03:49	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:49*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:49*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW03

Lab Sample ID: 890-2142-19
Matrix: Solid
Date Collected: 03/23/22 12:05
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6970**		49.8		mg/Kg			04/08/22 05:51	10

Client Sample ID: SW04

Lab Sample ID: 890-2142-20
Matrix: Solid
Date Collected: 03/23/22 12:10
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
o-Xylene	**0.00341**		0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*03/29/22 12:01*	*04/01/22 11:00*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/29/22 12:01*	*04/01/22 11:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/30/22 10:27	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		03/29/22 17:09	03/30/22 04:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 04:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/29/22 17:09*	*03/30/22 04:10*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/29/22 17:09*	*03/30/22 04:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**101**		4.99		mg/Kg			04/08/22 05:57	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW05

Date Collected: 03/23/22 12:15
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Lab Sample ID: 890-2142-21

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/30/22 07:30	03/30/22 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/30/22 07:30*	*03/30/22 18:59*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/30/22 07:30*	*03/30/22 18:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 08:56	03/29/22 18:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/29/22 08:56	03/29/22 18:30	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 08:56	03/29/22 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:30*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94.5**		4.97		mg/Kg			04/08/22 06:02	1

Client Sample ID: SW06

Date Collected: 03/23/22 12:20
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Lab Sample ID: 890-2142-22

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		03/30/22 07:30	03/30/22 19:25	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/30/22 07:30	03/30/22 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*03/30/22 07:30*	*03/30/22 19:25*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW06

Date Collected: 03/23/22 12:20
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Lab Sample ID: 890-2142-22

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/30/22 07:30*	*03/30/22 19:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**72.0**		49.9		mg/Kg			03/30/22 10:27	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		03/29/22 08:56	03/29/22 18:50	1
Diesel Range Organics (Over C10-C28)	**72.0**		49.9		mg/Kg		03/29/22 08:56	03/29/22 18:50	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 08:56	03/29/22 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:50*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**284**		4.98		mg/Kg			04/08/22 06:08	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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)
890-2142-1	FS01	107	97
890-2142-1 MS	FS01	117	98
890-2142-1 MSD	FS01	116	99
890-2142-2	FS02	113	82
890-2142-3	FS03	119	85
890-2142-4	FS04	116	100
890-2142-5	FS05	140 S1+	91
890-2142-6	FS06	108	102
890-2142-7	FS07	114	102
890-2142-8	FS08	112	104
890-2142-9	FS09	117	103
890-2142-10	FS10	111	102
890-2142-11	FS11	112	102
890-2142-12	FS12	118	94
890-2142-13	FS13	118	100
890-2142-14	FS14	106	102
890-2142-15	FS15	114	107
890-2142-16	FS16	113	104
890-2142-17	SW01	104	102
890-2142-18	SW02	127	111
890-2142-19	SW03	112	105
890-2142-20	SW04	115	105
890-2142-21	SW05	110	90
890-2142-22	SW06	75	100
890-2143-A-21-E MS	Matrix Spike	108	100
890-2143-A-21-F MSD	Matrix Spike Duplicate	107	101
LCS 880-22509/1-A	Lab Control Sample	104	106
LCS 880-22563/1-A	Lab Control Sample	102	103
LCSD 880-22509/2-A	Lab Control Sample Dup	110	105
LCSD 880-22563/2-A	Lab Control Sample Dup	104	105
MB 880-22509/5-A	Method Blank	69 S1-	90
MB 880-22563/5-A	Method Blank	123	97
MB 880-22658/5-A	Method Blank	118	100

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)
880-12957-A-1-E MS	Matrix Spike	113	117
880-12957-A-1-F MSD	Matrix Spike Duplicate	111	116
890-2142-1	FS01	113	115
890-2142-1 MS	FS01	121	123
890-2142-1 MSD	FS01	121	125
890-2142-2	FS02	111	115

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2142-3	FS03	110	124
890-2142-4	FS04	112	128
890-2142-5	FS05	109	119
890-2142-6	FS06	109	121
890-2142-7	FS07	106	121
890-2142-8	FS08	107	122
890-2142-9	FS09	105	114
890-2142-10	FS10	106	119
890-2142-11	FS11	108	123
890-2142-12	FS12	106	114
890-2142-13	FS13	108	119
890-2142-14	FS14	108	120
890-2142-15	FS15	105	121
890-2142-16	FS16	110	125
890-2142-17	SW01	110	122
890-2142-18	SW02	102	113
890-2142-19	SW03	107	120
890-2142-20	SW04	104	114
890-2142-21	SW05	107	120
890-2142-22	SW06	106	121

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-22521/2-A	Lab Control Sample	111	125
LCS 880-22591/2-A	Lab Control Sample	106	119
LCSD 880-22521/3-A	Lab Control Sample Dup	115	127
LCSD 880-22591/3-A	Lab Control Sample Dup	104	119
MB 880-22521/1-A	Method Blank	123	141 S1+
MB 880-22591/1-A	Method Blank	119	135 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22509/5-A
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22509

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/30/22 07:30	03/30/22 16:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*03/30/22 07:30*	*03/30/22 16:18*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/30/22 07:30*	*03/30/22 16:18*	*1*

Lab Sample ID: LCS 880-22509/1-A
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22509

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1274		mg/Kg		127	70 - 130		
Toluene			0.100	0.1136		mg/Kg		114	70 - 130		
Ethylbenzene			0.100	0.1029		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene			0.200	0.2096		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1059		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-22509/2-A
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22509

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1347	*+	mg/Kg		135	70 - 130	6	35
Toluene			0.100	0.1207		mg/Kg		121	70 - 130	6	35
Ethylbenzene			0.100	0.1119		mg/Kg		112	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.2287		mg/Kg		114	70 - 130	9	35
o-Xylene			0.100	0.1174		mg/Kg		117	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-2143-A-21-E MS
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U *+	0.100	0.1253		mg/Kg		125	70 - 130		
Toluene	<0.00200	U	0.100	0.1113		mg/Kg		111	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: 890-2143-A-21-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22605 — **Prep Batch: 22509**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1011		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.201	0.2034		mg/Kg		101	70 - 130
o-Xylene	<0.00200	U	0.100	0.1022		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2143-A-21-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22605 — **Prep Batch: 22509**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U *+	0.0998	0.1078		mg/Kg		108	70 - 130	15	35
Toluene	<0.00200	U	0.0998	0.1014		mg/Kg		102	70 - 130	9	35
Ethylbenzene	<0.00200	U	0.0998	0.09084		mg/Kg		91	70 - 130	11	35
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1846		mg/Kg		93	70 - 130	10	35
o-Xylene	<0.00200	U	0.0998	0.09307		mg/Kg		93	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-22563/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22719 — **Prep Batch: 22563**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/29/22 12:01	04/01/22 02:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*03/29/22 12:01*	*04/01/22 02:38*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/29/22 12:01*	*04/01/22 02:38*	*1*

Lab Sample ID: LCS 880-22563/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22719 — **Prep Batch: 22563**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09544		mg/Kg		95	70 - 130
Toluene	0.100	0.08131		mg/Kg		81	70 - 130
Ethylbenzene	0.100	0.08626		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	0.200	0.1827		mg/Kg		91	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: LCS 880-22563/1-A
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22563

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.09205		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-22563/2-A
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22563

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1028		mg/Kg		103	70 - 130	7	35
Toluene			0.100	0.08528		mg/Kg		85	70 - 130	5	35
Ethylbenzene			0.100	0.09027		mg/Kg		90	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1903		mg/Kg		95	70 - 130	4	35
o-Xylene			0.100	0.09677		mg/Kg		97	70 - 130	5	35

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

Lab Sample ID: 890-2142-1 MS
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22563

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.0990	0.04900	F1	mg/Kg		49	70 - 130		
Toluene	<0.00201	U F1	0.0990	0.03062	F1	mg/Kg		30	70 - 130		
Ethylbenzene	<0.00201	U F1	0.0990	0.03386	F1	mg/Kg		34	70 - 130		
m-Xylene & p-Xylene	0.00649	F1	0.198	0.03570	F1	mg/Kg		15	70 - 130		
o-Xylene	0.0145	F1	0.0990	0.05066	F1	mg/Kg		37	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-2142-1 MSD
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22563

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0996	0.05088	F1	mg/Kg		51	70 - 130	4	35
Toluene	<0.00201	U F1	0.0996	0.03068	F1	mg/Kg		30	70 - 130	0	35
Ethylbenzene	<0.00201	U F1	0.0996	0.03662	F1	mg/Kg		36	70 - 130	8	35
m-Xylene & p-Xylene	0.00649	F1	0.199	0.02654	F1	mg/Kg		10	70 - 130	29	35
o-Xylene	0.0145	F1	0.0996	0.05454	F1	mg/Kg		40	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: 890-2142-1 MSD
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22563

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: MB 880-22658/5-A
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22658

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/31/22 12:00	03/31/22 15:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	03/31/22 12:00	03/31/22 15:35	1
1,4-Difluorobenzene (Surr)	100		70 - 130	03/31/22 12:00	03/31/22 15:35	1

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

Lab Sample ID: MB 880-22521/1-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22521

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		03/29/22 08:56	03/29/22 11:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 08:56	03/29/22 11:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 08:56	03/29/22 11:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130	03/29/22 08:56	03/29/22 11:53	1
o-Terphenyl	141	S1+	70 - 130	03/29/22 08:56	03/29/22 11:53	1

Lab Sample ID: LCS 880-22521/2-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22521

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	942.8		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1012		mg/Kg		101	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	125		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: LCSD 880-22521/3-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22521

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	916.3		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1036		mg/Kg		104	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*127*		*70 - 130*

Lab Sample ID: 880-12957-A-1-E MS
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1259		mg/Kg		123	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	810.8		mg/Kg		79	70 - 130

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

Lab Sample ID: 880-12957-A-1-F MSD
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 22521

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1279		mg/Kg		125	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	807.0		mg/Kg		78	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: MB 880-22591/1-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22591

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		03/29/22 17:09	03/29/22 19:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 19:32	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 19:32	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: MB 880-22591/1-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22591

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	03/29/22 17:09	03/29/22 19:32	1
o-Terphenyl	135	S1+	70 - 130	03/29/22 17:09	03/29/22 19:32	1

Lab Sample ID: LCS 880-22591/2-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22591

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	872.8		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	972.0		mg/Kg		97	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-22591/3-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22591

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	832.0		mg/Kg		83	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	954.9		mg/Kg		95	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: 890-2142-1 MS
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22591

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	104	F1	998	1391		mg/Kg		129	70 - 130		
Diesel Range Organics (Over C10-C28)	2620	F1	998	3339		mg/Kg		72	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	123		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: 890-2142-1 MSD — **Client Sample ID: FS01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22514 — **Prep Batch: 22591**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	104	F1	998	1408	F1	mg/Kg		131	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	2620	F1	998	3261	F1	mg/Kg		64	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22795/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/02/22 19:50	1

Lab Sample ID: LCS 880-22795/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.9		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-22795/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	257.5		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-2142-2 MS — **Client Sample ID: FS02**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	8730		4980	13710		mg/Kg		100	90 - 110		

Lab Sample ID: 890-2142-2 MSD — **Client Sample ID: FS02**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8730		4980	13950		mg/Kg		105	90 - 110	2	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-22997/1-A
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/08/22 04:33	1

Lab Sample ID: LCS 880-22997/2-A
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-22997/3-A
Matrix: Solid
Analysis Batch: 23131

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	244.6		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-2142-12 MS
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: FS12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	413	F1	248	619.0	F1	mg/Kg		83	90 - 110		

Lab Sample ID: 890-2142-12 MSD
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: FS12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	413	F1	248	627.7	F1	mg/Kg		87	90 - 110	1	20

Lab Sample ID: 890-2142-22 MS
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: SW06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	284		249	515.7		mg/Kg		93	90 - 110		

Lab Sample ID: 890-2142-22 MSD
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: SW06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	284		249	518.1		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

GC VOA

Prep Batch: 22509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-21	SW05	Total/NA	Solid	5035	
890-2142-22	SW06	Total/NA	Solid	5035	
MB 880-22509/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22509/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22509/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2143-A-21-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2143-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 22563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	5035	
890-2142-2	FS02	Total/NA	Solid	5035	
890-2142-3	FS03	Total/NA	Solid	5035	
890-2142-4	FS04	Total/NA	Solid	5035	
890-2142-5	FS05	Total/NA	Solid	5035	
890-2142-6	FS06	Total/NA	Solid	5035	
890-2142-7	FS07	Total/NA	Solid	5035	
890-2142-8	FS08	Total/NA	Solid	5035	
890-2142-9	FS09	Total/NA	Solid	5035	
890-2142-10	FS10	Total/NA	Solid	5035	
890-2142-11	FS11	Total/NA	Solid	5035	
890-2142-12	FS12	Total/NA	Solid	5035	
890-2142-13	FS13	Total/NA	Solid	5035	
890-2142-14	FS14	Total/NA	Solid	5035	
890-2142-15	FS15	Total/NA	Solid	5035	
890-2142-16	FS16	Total/NA	Solid	5035	
890-2142-17	SW01	Total/NA	Solid	5035	
890-2142-18	SW02	Total/NA	Solid	5035	
890-2142-19	SW03	Total/NA	Solid	5035	
890-2142-20	SW04	Total/NA	Solid	5035	
MB 880-22563/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22563/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22563/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2142-1 MS	FS01	Total/NA	Solid	5035	
890-2142-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 22605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-21	SW05	Total/NA	Solid	8021B	22509
890-2142-22	SW06	Total/NA	Solid	8021B	22509
MB 880-22509/5-A	Method Blank	Total/NA	Solid	8021B	22509
LCS 880-22509/1-A	Lab Control Sample	Total/NA	Solid	8021B	22509
LCSD 880-22509/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22509
890-2143-A-21-E MS	Matrix Spike	Total/NA	Solid	8021B	22509
890-2143-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	22509

Prep Batch: 22658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-22658/5-A	Method Blank	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

GC VOA

Analysis Batch: 22717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	Total BTEX	
890-2142-2	FS02	Total/NA	Solid	Total BTEX	
890-2142-3	FS03	Total/NA	Solid	Total BTEX	
890-2142-4	FS04	Total/NA	Solid	Total BTEX	
890-2142-5	FS05	Total/NA	Solid	Total BTEX	
890-2142-6	FS06	Total/NA	Solid	Total BTEX	
890-2142-7	FS07	Total/NA	Solid	Total BTEX	
890-2142-8	FS08	Total/NA	Solid	Total BTEX	
890-2142-9	FS09	Total/NA	Solid	Total BTEX	
890-2142-10	FS10	Total/NA	Solid	Total BTEX	
890-2142-11	FS11	Total/NA	Solid	Total BTEX	
890-2142-12	FS12	Total/NA	Solid	Total BTEX	
890-2142-13	FS13	Total/NA	Solid	Total BTEX	
890-2142-14	FS14	Total/NA	Solid	Total BTEX	
890-2142-15	FS15	Total/NA	Solid	Total BTEX	
890-2142-16	FS16	Total/NA	Solid	Total BTEX	
890-2142-17	SW01	Total/NA	Solid	Total BTEX	
890-2142-18	SW02	Total/NA	Solid	Total BTEX	
890-2142-19	SW03	Total/NA	Solid	Total BTEX	
890-2142-20	SW04	Total/NA	Solid	Total BTEX	
890-2142-21	SW05	Total/NA	Solid	Total BTEX	
890-2142-22	SW06	Total/NA	Solid	Total BTEX	

Analysis Batch: 22719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8021B	22563
890-2142-2	FS02	Total/NA	Solid	8021B	22563
890-2142-3	FS03	Total/NA	Solid	8021B	22563
890-2142-4	FS04	Total/NA	Solid	8021B	22563
890-2142-5	FS05	Total/NA	Solid	8021B	22563
890-2142-6	FS06	Total/NA	Solid	8021B	22563
890-2142-7	FS07	Total/NA	Solid	8021B	22563
890-2142-8	FS08	Total/NA	Solid	8021B	22563
890-2142-9	FS09	Total/NA	Solid	8021B	22563
890-2142-10	FS10	Total/NA	Solid	8021B	22563
890-2142-11	FS11	Total/NA	Solid	8021B	22563
890-2142-12	FS12	Total/NA	Solid	8021B	22563
890-2142-13	FS13	Total/NA	Solid	8021B	22563
890-2142-14	FS14	Total/NA	Solid	8021B	22563
890-2142-15	FS15	Total/NA	Solid	8021B	22563
890-2142-16	FS16	Total/NA	Solid	8021B	22563
890-2142-17	SW01	Total/NA	Solid	8021B	22563
890-2142-18	SW02	Total/NA	Solid	8021B	22563
890-2142-19	SW03	Total/NA	Solid	8021B	22563
890-2142-20	SW04	Total/NA	Solid	8021B	22563
MB 880-22563/5-A	Method Blank	Total/NA	Solid	8021B	22563
MB 880-22658/5-A	Method Blank	Total/NA	Solid	8021B	22658
LCS 880-22563/1-A	Lab Control Sample	Total/NA	Solid	8021B	22563
LCSD 880-22563/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22563
890-2142-1 MS	FS01	Total/NA	Solid	8021B	22563
890-2142-1 MSD	FS01	Total/NA	Solid	8021B	22563

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

GC Semi VOA

Analysis Batch: 22514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8015B NM	22591
890-2142-2	FS02	Total/NA	Solid	8015B NM	22591
890-2142-3	FS03	Total/NA	Solid	8015B NM	22591
890-2142-4	FS04	Total/NA	Solid	8015B NM	22591
890-2142-5	FS05	Total/NA	Solid	8015B NM	22591
890-2142-6	FS06	Total/NA	Solid	8015B NM	22591
890-2142-7	FS07	Total/NA	Solid	8015B NM	22591
890-2142-8	FS08	Total/NA	Solid	8015B NM	22591
890-2142-9	FS09	Total/NA	Solid	8015B NM	22591
890-2142-10	FS10	Total/NA	Solid	8015B NM	22591
890-2142-11	FS11	Total/NA	Solid	8015B NM	22591
890-2142-12	FS12	Total/NA	Solid	8015B NM	22591
890-2142-13	FS13	Total/NA	Solid	8015B NM	22591
890-2142-14	FS14	Total/NA	Solid	8015B NM	22591
890-2142-15	FS15	Total/NA	Solid	8015B NM	22591
890-2142-16	FS16	Total/NA	Solid	8015B NM	22591
890-2142-17	SW01	Total/NA	Solid	8015B NM	22591
890-2142-18	SW02	Total/NA	Solid	8015B NM	22591
890-2142-19	SW03	Total/NA	Solid	8015B NM	22591
890-2142-20	SW04	Total/NA	Solid	8015B NM	22591
890-2142-21	SW05	Total/NA	Solid	8015B NM	22521
890-2142-22	SW06	Total/NA	Solid	8015B NM	22521
MB 880-22521/1-A	Method Blank	Total/NA	Solid	8015B NM	22521
MB 880-22591/1-A	Method Blank	Total/NA	Solid	8015B NM	22591
LCS 880-22521/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22521
LCS 880-22591/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22591
LCSD 880-22521/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22521
LCSD 880-22591/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22591
880-12957-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	22521
880-12957-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	22521
890-2142-1 MS	FS01	Total/NA	Solid	8015B NM	22591
890-2142-1 MSD	FS01	Total/NA	Solid	8015B NM	22591

Prep Batch: 22521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-21	SW05	Total/NA	Solid	8015NM Prep	
890-2142-22	SW06	Total/NA	Solid	8015NM Prep	
MB 880-22521/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22521/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22521/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12957-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12957-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 22591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8015NM Prep	
890-2142-2	FS02	Total/NA	Solid	8015NM Prep	
890-2142-3	FS03	Total/NA	Solid	8015NM Prep	
890-2142-4	FS04	Total/NA	Solid	8015NM Prep	
890-2142-5	FS05	Total/NA	Solid	8015NM Prep	
890-2142-6	FS06	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

GC Semi VOA (Continued)

Prep Batch: 22591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-7	FS07	Total/NA	Solid	8015NM Prep	
890-2142-8	FS08	Total/NA	Solid	8015NM Prep	
890-2142-9	FS09	Total/NA	Solid	8015NM Prep	
890-2142-10	FS10	Total/NA	Solid	8015NM Prep	
890-2142-11	FS11	Total/NA	Solid	8015NM Prep	
890-2142-12	FS12	Total/NA	Solid	8015NM Prep	
890-2142-13	FS13	Total/NA	Solid	8015NM Prep	
890-2142-14	FS14	Total/NA	Solid	8015NM Prep	
890-2142-15	FS15	Total/NA	Solid	8015NM Prep	
890-2142-16	FS16	Total/NA	Solid	8015NM Prep	
890-2142-17	SW01	Total/NA	Solid	8015NM Prep	
890-2142-18	SW02	Total/NA	Solid	8015NM Prep	
890-2142-19	SW03	Total/NA	Solid	8015NM Prep	
890-2142-20	SW04	Total/NA	Solid	8015NM Prep	
MB 880-22591/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22591/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22591/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2142-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-2142-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 22626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8015 NM	
890-2142-2	FS02	Total/NA	Solid	8015 NM	
890-2142-3	FS03	Total/NA	Solid	8015 NM	
890-2142-4	FS04	Total/NA	Solid	8015 NM	
890-2142-5	FS05	Total/NA	Solid	8015 NM	
890-2142-6	FS06	Total/NA	Solid	8015 NM	
890-2142-7	FS07	Total/NA	Solid	8015 NM	
890-2142-8	FS08	Total/NA	Solid	8015 NM	
890-2142-9	FS09	Total/NA	Solid	8015 NM	
890-2142-10	FS10	Total/NA	Solid	8015 NM	
890-2142-11	FS11	Total/NA	Solid	8015 NM	
890-2142-12	FS12	Total/NA	Solid	8015 NM	
890-2142-13	FS13	Total/NA	Solid	8015 NM	
890-2142-14	FS14	Total/NA	Solid	8015 NM	
890-2142-15	FS15	Total/NA	Solid	8015 NM	
890-2142-16	FS16	Total/NA	Solid	8015 NM	
890-2142-17	SW01	Total/NA	Solid	8015 NM	
890-2142-18	SW02	Total/NA	Solid	8015 NM	
890-2142-19	SW03	Total/NA	Solid	8015 NM	
890-2142-20	SW04	Total/NA	Solid	8015 NM	
890-2142-21	SW05	Total/NA	Solid	8015 NM	
890-2142-22	SW06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Soluble	Solid	DI Leach	
890-2142-2	FS02	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

HPLC/IC (Continued)

Leach Batch: 22795 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-3	FS03	Soluble	Solid	DI Leach	
890-2142-4	FS04	Soluble	Solid	DI Leach	
890-2142-5	FS05	Soluble	Solid	DI Leach	
890-2142-6	FS06	Soluble	Solid	DI Leach	
890-2142-7	FS07	Soluble	Solid	DI Leach	
890-2142-8	FS08	Soluble	Solid	DI Leach	
890-2142-9	FS09	Soluble	Solid	DI Leach	
890-2142-10	FS10	Soluble	Solid	DI Leach	
890-2142-11	FS11	Soluble	Solid	DI Leach	
MB 880-22795/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22795/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22795/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2142-2 MS	FS02	Soluble	Solid	DI Leach	
890-2142-2 MSD	FS02	Soluble	Solid	DI Leach	

Analysis Batch: 22867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Soluble	Solid	300.0	22795
890-2142-2	FS02	Soluble	Solid	300.0	22795
890-2142-3	FS03	Soluble	Solid	300.0	22795
890-2142-4	FS04	Soluble	Solid	300.0	22795
890-2142-5	FS05	Soluble	Solid	300.0	22795
890-2142-6	FS06	Soluble	Solid	300.0	22795
890-2142-7	FS07	Soluble	Solid	300.0	22795
890-2142-8	FS08	Soluble	Solid	300.0	22795
890-2142-9	FS09	Soluble	Solid	300.0	22795
890-2142-10	FS10	Soluble	Solid	300.0	22795
890-2142-11	FS11	Soluble	Solid	300.0	22795
MB 880-22795/1-A	Method Blank	Soluble	Solid	300.0	22795
LCS 880-22795/2-A	Lab Control Sample	Soluble	Solid	300.0	22795
LCSD 880-22795/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22795
890-2142-2 MS	FS02	Soluble	Solid	300.0	22795
890-2142-2 MSD	FS02	Soluble	Solid	300.0	22795

Leach Batch: 22997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-12	FS12	Soluble	Solid	DI Leach	
890-2142-13	FS13	Soluble	Solid	DI Leach	
890-2142-14	FS14	Soluble	Solid	DI Leach	
890-2142-15	FS15	Soluble	Solid	DI Leach	
890-2142-16	FS16	Soluble	Solid	DI Leach	
890-2142-17	SW01	Soluble	Solid	DI Leach	
890-2142-18	SW02	Soluble	Solid	DI Leach	
890-2142-19	SW03	Soluble	Solid	DI Leach	
890-2142-20	SW04	Soluble	Solid	DI Leach	
890-2142-21	SW05	Soluble	Solid	DI Leach	
890-2142-22	SW06	Soluble	Solid	DI Leach	
MB 880-22997/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22997/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22997/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2142-12 MS	FS12	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

HPLC/IC (Continued)

Leach Batch: 22997 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-12 MSD	FS12	Soluble	Solid	DI Leach	
890-2142-22 MS	SW06	Soluble	Solid	DI Leach	
890-2142-22 MSD	SW06	Soluble	Solid	DI Leach	

Analysis Batch: 23131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-12	FS12	Soluble	Solid	300.0	22997
890-2142-13	FS13	Soluble	Solid	300.0	22997
890-2142-14	FS14	Soluble	Solid	300.0	22997
890-2142-15	FS15	Soluble	Solid	300.0	22997
890-2142-16	FS16	Soluble	Solid	300.0	22997
890-2142-17	SW01	Soluble	Solid	300.0	22997
890-2142-18	SW02	Soluble	Solid	300.0	22997
890-2142-19	SW03	Soluble	Solid	300.0	22997
890-2142-20	SW04	Soluble	Solid	300.0	22997
890-2142-21	SW05	Soluble	Solid	300.0	22997
890-2142-22	SW06	Soluble	Solid	300.0	22997
MB 880-22997/1-A	Method Blank	Soluble	Solid	300.0	22997
LCS 880-22997/2-A	Lab Control Sample	Soluble	Solid	300.0	22997
LCSD 880-22997/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22997
890-2142-12 MS	FS12	Soluble	Solid	300.0	22997
890-2142-12 MSD	FS12	Soluble	Solid	300.0	22997
890-2142-22 MS	SW06	Soluble	Solid	300.0	22997
890-2142-22 MSD	SW06	Soluble	Solid	300.0	22997

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS01
Date Collected: 03/23/22 08:50
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 03:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 20:35	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		10	22867	04/02/22 22:11	CH	XEN MID

Client Sample ID: FS02
Date Collected: 03/23/22 08:55
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 03:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 21:38	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		20	22867	04/02/22 22:20	CH	XEN MID

Client Sample ID: FS03
Date Collected: 03/23/22 09:00
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 03:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 21:59	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		10	22867	04/02/22 22:47	CH	XEN MID

Client Sample ID: FS04
Date Collected: 03/23/22 09:05
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 04:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS04 Lab Sample ID: 890-2142-4

Date Collected: 03/23/22 09:05 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 22:20	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		20	22867	04/02/22 22:56	CH	XEN MID

Client Sample ID: FS05 Lab Sample ID: 890-2142-5

Date Collected: 03/23/22 09:20 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 04:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 22:40	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		5	22867	04/02/22 23:22	CH	XEN MID

Client Sample ID: FS06 Lab Sample ID: 890-2142-6

Date Collected: 03/23/22 09:25 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 04:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 23:01	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:31	CH	XEN MID

Client Sample ID: FS07 Lab Sample ID: 890-2142-7

Date Collected: 03/23/22 09:40 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 05:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 23:22	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS07 Lab Sample ID: 890-2142-7

Date Collected: 03/23/22 09:40 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:40	CH	XEN MID

Client Sample ID: FS08 Lab Sample ID: 890-2142-8

Date Collected: 03/23/22 09:45 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 05:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 23:43	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:49	CH	XEN MID

Client Sample ID: FS09 Lab Sample ID: 890-2142-9

Date Collected: 03/23/22 10:20 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 05:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 00:04	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:58	CH	XEN MID

Client Sample ID: FS10 Lab Sample ID: 890-2142-10

Date Collected: 03/23/22 10:25 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 06:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 00:24	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/03/22 00:07	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS11
Date Collected: 03/23/22 10:30
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 07:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 01:06	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/03/22 00:15	CH	XEN MID

Client Sample ID: FS12
Date Collected: 03/23/22 10:35
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 08:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 01:26	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 04:49	CH	XEN MID

Client Sample ID: FS13
Date Collected: 03/23/22 10:45
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 08:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 01:47	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:06	CH	XEN MID

Client Sample ID: FS14
Date Collected: 03/23/22 10:50
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 08:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS14 Lab Sample ID: 890-2142-14

Date Collected: 03/23/22 10:50 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 02:07	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		10	23131	04/08/22 05:12	CH	XEN MID

Client Sample ID: FS15 Lab Sample ID: 890-2142-15

Date Collected: 03/23/22 10:55 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 09:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 02:28	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:17	CH	XEN MID

Client Sample ID: FS16 Lab Sample ID: 890-2142-16

Date Collected: 03/23/22 11:05 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 09:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 02:48	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:23	CH	XEN MID

Client Sample ID: SW01 Lab Sample ID: 890-2142-17

Date Collected: 03/23/22 11:50 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 09:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 03:08	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW01 Lab Sample ID: 890-2142-17

Date Collected: 03/23/22 11:50 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		5	23131	04/08/22 05:40	CH	XEN MID

Client Sample ID: SW02 Lab Sample ID: 890-2142-18

Date Collected: 03/23/22 11:55 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 10:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 03:29	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		20	23131	04/08/22 05:46	CH	XEN MID

Client Sample ID: SW03 Lab Sample ID: 890-2142-19

Date Collected: 03/23/22 12:05 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 10:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 03:49	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		10	23131	04/08/22 05:51	CH	XEN MID

Client Sample ID: SW04 Lab Sample ID: 890-2142-20

Date Collected: 03/23/22 12:10 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 11:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 04:10	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:57	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW05

Date Collected: 03/23/22 12:15
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22509	03/30/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	22605	03/30/22 18:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22521	03/29/22 08:56	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 18:30	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 06:02	CH	XEN MID

Client Sample ID: SW06

Date Collected: 03/23/22 12:20
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22509	03/30/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	22605	03/30/22 19:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22521	03/29/22 08:56	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 18:50	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 06:08	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

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

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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2142-1	FS01	Solid	03/23/22 08:50	03/28/22 14:48	5
890-2142-2	FS02	Solid	03/23/22 08:55	03/28/22 14:48	5
890-2142-3	FS03	Solid	03/23/22 09:00	03/28/22 14:48	5
890-2142-4	FS04	Solid	03/23/22 09:05	03/28/22 14:48	5
890-2142-5	FS05	Solid	03/23/22 09:20	03/28/22 14:48	5
890-2142-6	FS06	Solid	03/23/22 09:25	03/28/22 14:48	5
890-2142-7	FS07	Solid	03/23/22 09:40	03/28/22 14:48	5
890-2142-8	FS08	Solid	03/23/22 09:45	03/28/22 14:48	5
890-2142-9	FS09	Solid	03/23/22 10:20	03/28/22 14:48	5
890-2142-10	FS10	Solid	03/23/22 10:25	03/28/22 14:48	5
890-2142-11	FS11	Solid	03/23/22 10:30	03/28/22 14:48	5
890-2142-12	FS12	Solid	03/23/22 10:35	03/28/22 14:48	5
890-2142-13	FS13	Solid	03/23/22 10:45	03/28/22 14:48	5
890-2142-14	FS14	Solid	03/23/22 10:50	03/28/22 14:48	5
890-2142-15	FS15	Solid	03/23/22 10:55	03/28/22 14:48	5
890-2142-16	FS16	Solid	03/23/22 11:05	03/28/22 14:48	5
890-2142-17	SW01	Solid	03/23/22 11:50	03/28/22 14:48	0 - 5
890-2142-18	SW02	Solid	03/23/22 11:55	03/28/22 14:48	0 - 5
890-2142-19	SW03	Solid	03/23/22 12:05	03/28/22 14:48	0 - 5
890-2142-20	SW04	Solid	03/23/22 12:10	03/28/22 14:48	0 - 5
890-2142-21	SW05	Solid	03/23/22 12:15	03/28/22 14:48	0 - 5
890-2142-22	SW06	Solid	03/23/22 12:20	03/28/22 14:48	0 - 5

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

4/8/2022

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	Kalei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com.

Work Order Comments

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

Project Name:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129, Task 16.02	Routine	✓
P.O. Number:	NAPP 2200746777	Rush:	
Sampler's Name:	Mercy Rotich	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	3.2 / 3.0	Thermometer ID		
Received Intact:	Yes No	1-NM-067		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

890-2142 Chain of Custody

Work Order Notes

API:30-015-47145
CC:2096141001

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS01	S	03/23/22	8:50	5'	1	X	X	X	Discrete
FS02	S	03/23/22	8:55	5'	1	X	X	X	Discrete
FS03	S	03/23/22	9:00	5'	1	X	X	X	Discrete
FS04	S	03/23/22	9:05	5'	1	X	X	X	Discrete
FS05	S	03/23/22	9:20	5'	1	X	X	X	Discrete
FS06	S	03/23/22	9:25	5'	1	X	X	X	Discrete
FS07	S	03/23/22	9:40	5'	1	X	X	X	Discrete
FS08	S	03/23/22	9:45	5'	1	X	X	X	Discrete
FS09	S	03/23/22	10:20	5'	1	X	X	X	Discrete
FS10	S	03/23/22	10:25	5'	1	X	X	X	Discrete

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/28/22 2:48	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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

4/8/2022

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	Kalei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com.

Work Order Comments

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

Project Name:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129, Task 16.02	Routine	✓
P.O. Number:	NAPP 2200746777	Rush:	
Sampler's Name:	Mercy Rotich	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.2 / 3.0	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Work Order Notes

API:30-015-47145
CC:2096141001

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS11	S	03/23/22	10:30	5'	1	X	X	X	Discrete
FS12	S	03/23/22	10:35	5'	1	X	X	X	Discrete
FS13	S	03/23/22	10:45	5'	1	X	X	X	Discrete
FS14	S	03/23/22	10:50	5'	1	X	X	X	Discrete
FS15	S	03/23/22	10:55	5'	1	X	X	X	Discrete
FS16	S	03/23/22	11:05	5'	1	X	X	X	Discrete
SW01	S	03/23/22	11:50	0-5'	1	X	X	X	Discrete
SW02	S	03/23/22	11:55	0-5'	1	X	X	X	Discrete
SW03	S	03/23/22	12:05	0-5'	1	X	X	X	Discrete
SW04	S	03/23/22	12:10	0-5'	1	X	X	X	Discrete

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/28/22 2:48	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018 1

Chain of Custody

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	Kalei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com.

Work Order Comments

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

Project Name:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129, Task 16.02	Routine	✓
P.O. Number:	NAPP 2200746777	Rush:	
Sampler's Name:	Mercy Rotich	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	~~Yes~~ No	
Temperature (°C):		Thermometer ID		
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)
SW05	S	03/23/22	12:15	0-5'	1	X	X	X
SW06	S	03/23/22	12:20	0-5'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

API:30-015-47145
CC:2096141001

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

Sample Comments

Discrete
Discrete

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/28/22 2:48	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2142-1
SDG Number: 31403236.022.0129 TASK16.02

Login Number: 2142
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: 890-2142-1
SDG Number: 31403236.022.0129 TASK16.02

Login Number: 2142
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Midland
List Creation: 03/29/22 01:12 PM

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

ENSOLUM

APPENDIX D

NMOCD Notifications

Collins, Melanie

From: Collins, Melanie
Sent: Tuesday, March 22, 2022 9:52 AM
To: ocd.enviro@state.nm.us; mike.bratcher@state.nm.us
Cc: Cole, Aimee; Morrissey, Tacoma; Jennings, Kalei; DelawareSpills /SM
Subject: XTO-Extension Request - BEU DI 30 Battery (Incident Number NAPP2200746777)

All,

BEU DI 30 Battery (Incident Number NAPP2200746777)

XTO is requesting an extension of the current March 24, 2022 deadline for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU DI 30 Battery (Incident Number NAPP2200746777). The release was discovered on December 24, 2021 and remediation activities are ongoing. Based on the most recent laboratory analytical results, additional remediation is required. In order to complete the remediation activities and submit a remediation work plan or closure report, XTO requests a 60-day extension of the deadline until May 23, 2022.

Thank you,

Melanie Collins
SSHE Technician
XTO ENERGY
An **ExxonMobil** Subsidiary
6401 Holiday Hill Rd, Bldg 5
Midland, TX 79707
432-218-3709

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 109566

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 109566
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. If you believe a certain area will require a deferral, please make sure that it has been fully delineated and specify the exact soil sample location.	8/23/2022