

Incident ID	NAPP2201441915
District RP	
Facility ID	
Application ID	

## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Adrian Baker Title: Environmental Coordinator  
Signature: Adrian Baker Date: 5/27/2022  
email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

**OCD Only**

Received by: Robert Hamlet Date: 7/27/2022

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

Closure Approved by: Robert Hamlet Date: 7/27/2022  
Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

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## 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 32.10511 Longitude -103.83054  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit 25 Brushy Draw	Site Type Satellite
Date Release Discovered 1/02/2022	API# (if applicable)

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

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1.34	Volume Recovered (bbls) 1.00
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 5.38	Volume Recovered (bbls) 4.00
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)


Cause of Release Corrosion caused a buried flow line to release fluids to pad. A vacuum truck was dispatched and recovered all free fluids. A third-party contractor has been retained for remediation purposes.

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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*

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> 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: Shelby G. Pennington	Title: Environmental Manager
Signature: 	Date: 1/14/22
email: shelby.g.pennington@exxonmobil.com	Telephone: 281-723-9353
<b><u>OCD Only</u></b>	
Received by: Ramona Marcus	Date: 1/14/2022

<b>Location:</b>	<b>Poker Lake Unit 25 BD Satellite</b>	
<b>Spill Date:</b>	<b>1/2/2022</b>	
<b>Area 1</b>		
Approximate Area =	2581.00	sq. ft.
Average Saturation (or depth) of spill =	1.50	inches
Average Porosity Factor =	0.03	
<b>VOLUME OF LEAK</b>		
Total Crude Oil =	1.34	bbls
Total Produced Water =	5.38	bbls
<b>TOTAL VOLUME OF LEAK</b>		
Total Crude Oil =	1.34	bbls
Total Produced Water =	5.38	bbls
<b>TOTAL VOLUME RECOVERED</b>		
Total Crude Oil =	1.00	bbls
Total Produced Water =	4.00	bbls

**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 72532

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 72532
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/14/2022

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## 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?	<u>&gt;100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

Page 4

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Printed Name: Adrian Baker Title: Environmental CoordinatorSignature:  Date: 5/27/2022email: adrian.baker@exxonmobil.com Telephone: 432-236-3808**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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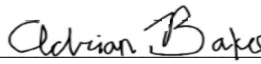
## Closure

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Adrian Baker Title: Environmental Coordinator  
Signature:  Date: 5/27/2022  
email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_





May 27, 2022

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

**Re: Closure Request  
Poker Lake Unit 25 Brushy Draw  
Incident Number NAPP2201441915  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this Closure Request to document site assessment and soil sampling activities performed at the Poker Lake Unit 25 Brushy Draw (Site) in Unit B, Section 25, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a release of crude oil and produced water at the Site. Based on field observations, field screening activities, and laboratory analytical results from the soil sampling events, XTO is requesting closure for Incident Number NAPP2201441915.

#### **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Eddy County, New Mexico (32.10511° N, 103.83054°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land.

On January 2, 2022, corrosion of a flow line resulted in the release of approximately 1.34 barrels (bbls) of crude oil and 5.38 bbls of produced water onto the well pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 1 bbl of crude oil and 4 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on January 14, 2022. The release was assigned Incident Number NAPP2201441915.

#### **SITE CHARACTERIZATION 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 greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. On February 24, 2021, a soil boring (C-4498) was drilled nearly 0.5 miles of the Site utilizing a track-mounted hollow-stem auger rig. Soil boring C-4498 was drilled to a depth of 109 feet bgs. The location of the borehole is approximately 3,425

feet southwest of the release area and is depicted on Figure 1. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater was greater than 109 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. An additional soil boring (C-4500) was drilled to a depth of 110 feet bgs approximately 2.5 miles east of the Site. No groundwater was encountered in the soil boring, which provides additional support in a different direction that groundwater beneath the Site is greater than 100 feet bgs. There are no hydrological features near the Site that would indicate shallow groundwater. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a unnamed dry wash, located approximately 1,323 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

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

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

## INITIAL SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

Between February 16, 2022 and February 18, 2022, site assessment activities were conducted at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven preliminary assessment soil samples (SS01 through SS07) were collected within and around the release extent from a depth of 0.5 feet bgs to assess for the presence of absence of soil impacted soil. The preliminary assessment soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The 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-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS03, collected within the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for preliminary soil samples SS04 through SS07, collected around the release extent, indicated that benzene, BTEX, TPH-

GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. Based on laboratory analytical results, the lateral extent of the release was defined and no excavation was warranted. However, additional vertical assessment activities were scheduled to further confirm the absence of impacted soil. Photographic documentation was conducted during the Site Visit. Photographs are included in Appendix B.

## DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

On May 19, 2022, Ensolum personnel returned to the Site to oversee additional assessment activities. Three potholes were advanced via backhoe to a depth of 2 feet bgs within the release extent at the SS01 through SS03 preliminary soil sample locations. Two discrete soil samples (SS01A/SS01B through SS03A/SS03B) were collected from each pothole at depths of 1-foot and 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each pothole were documented on a lithologic/soil sampling log and are included as Appendix C. The soil samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico. The soil sample locations are depicted on Figure 2.

Laboratory analytical results for soil samples SS01A/SS01B through SS03A/SS03B, collected from depths of 1-foot and 2 feet bgs, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

## CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the January 2, 2022 release of crude oil and produced water. Laboratory analytical results for soil samples collected within and around the release extent, from depths ranging from 0.5 feet to 2 feet bgs, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provided lateral and vertical delineation to below the most stringent Table 1 Closure Criteria.

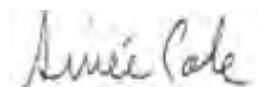
Based on initial response efforts, depth to groundwater greater than 100 feet bgs, and soil sample laboratory analytical results compliant with the Closure Criteria, no further remediation was required. XTO believes these remedial actions are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2201441915.

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

Sincerely,  
**Ensolum, LLC**



Kalei Jennings  
Senior Scientist



Aimee Cole  
Senior Managing Scientist

cc: Adrian Baker, XTO  
Bureau of Land Management

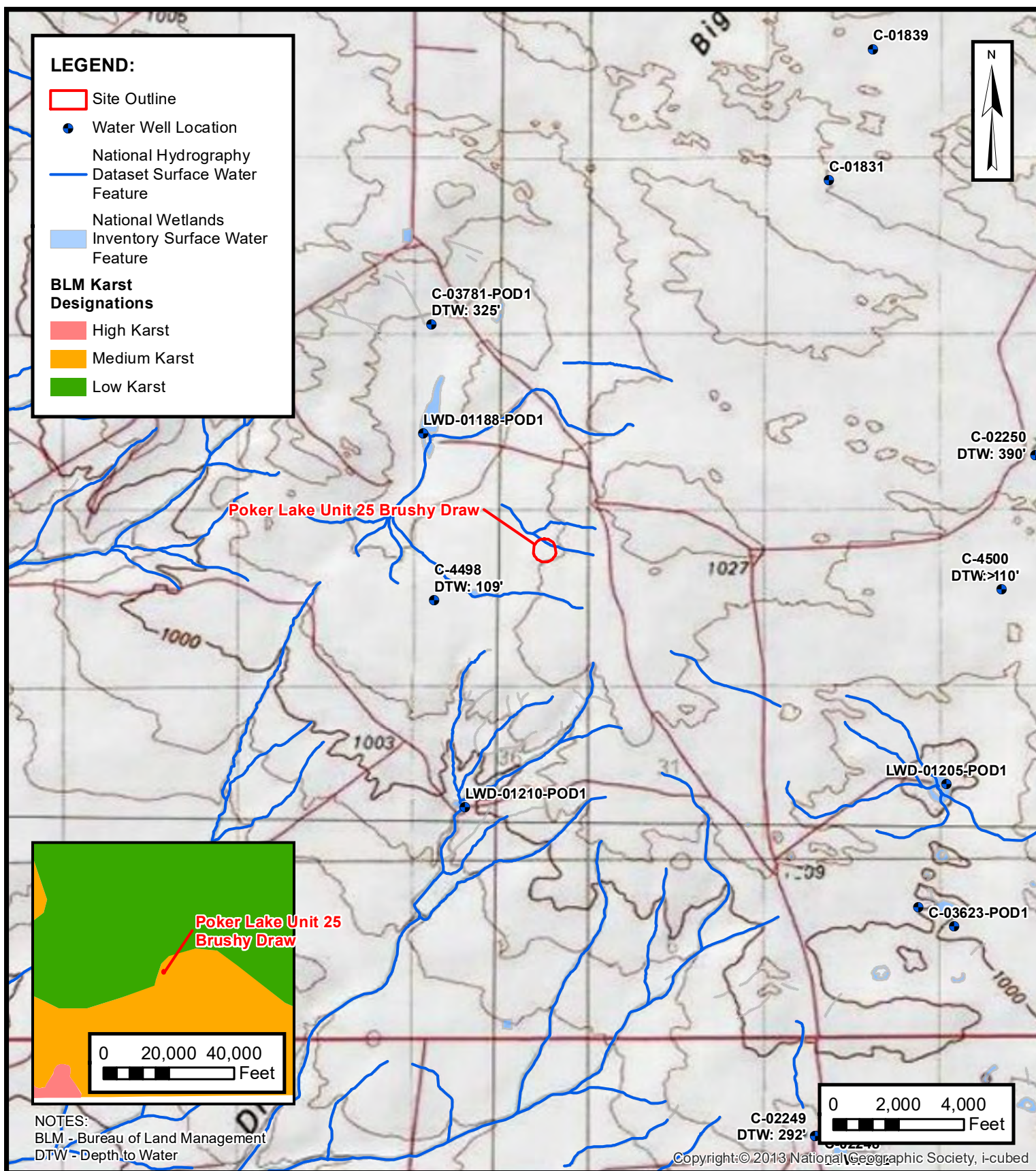
Appendices:

Figure 1	Site Receptor Map
Figure 2	Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Well Record and Log
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications

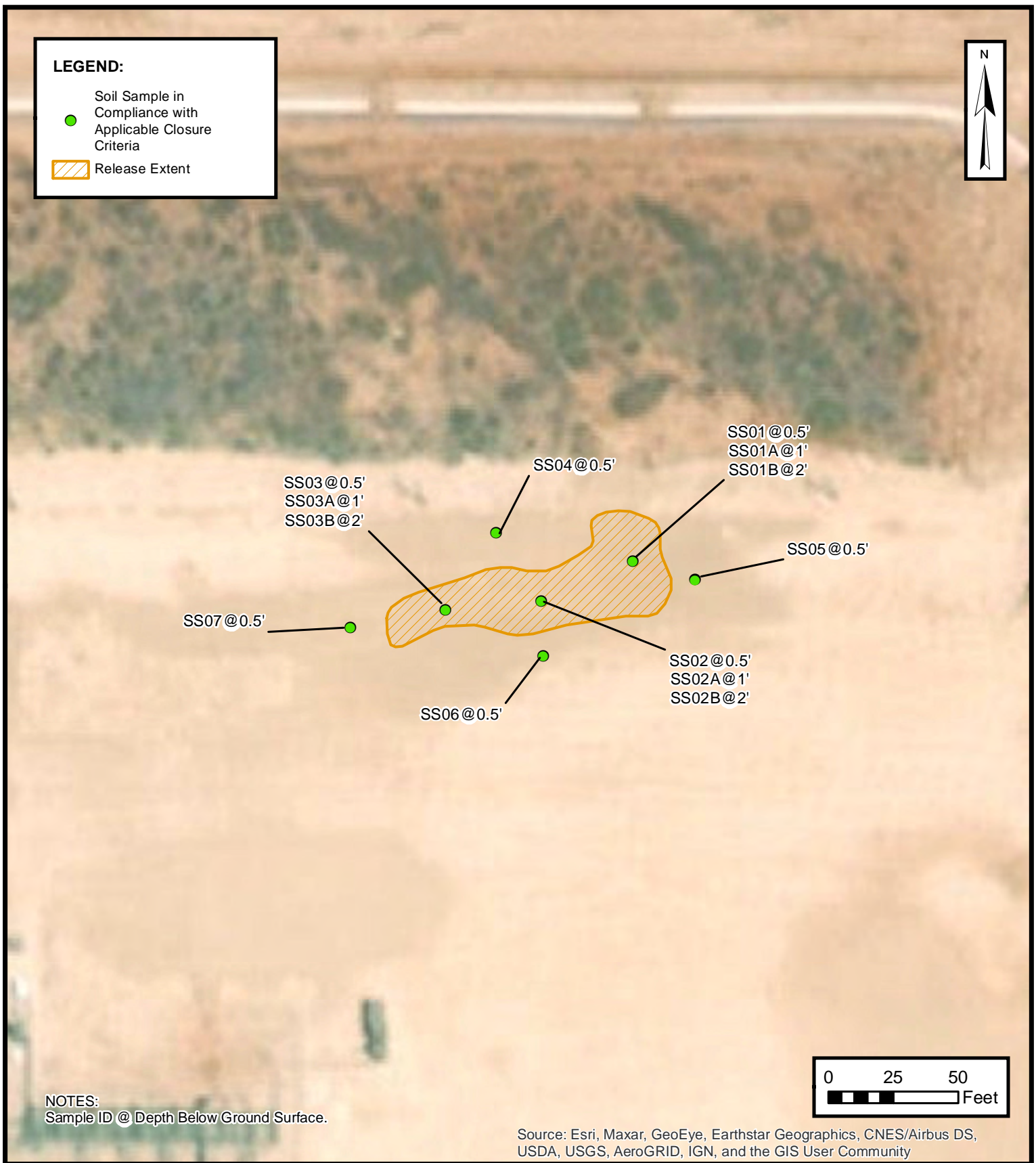


FIGURES











TABLES





TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
XTO Energy, Inc. - Poker Lake Unit 25 Brushy Draw  
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	1,000	2,500	20,000
Soil Sample Analytical Results										
SS01	02/16/2022	0.5	<0.00202	0.249	<50.0	375	<50.0	375	375	12,800
SS01A	05/19/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	63.4
SS01B	05/19/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	10.5
SS02	02/16/2022	0.5	<0.00201	<0.00402	<49.9	131	<49.9	131	131	777
SS02A	05/19/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	43.2
SS02B	05/19/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	26.1
SS03	02/16/2022	0.5	<0.00198	<0.00397	<50.0	140	<50.0	140	140	1,000
SS03A	05/19/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	46.4
SS03B	05/19/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	30.0
SS04	02/18/2022	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	92.4
SS05	02/18/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	203
SS06	02/16/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	281
SS07	02/18/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	88.0

Notes:

bgs: below ground surface  
mg/kg: milligrams per kilogram  
NMOCD: New Mexico Oil Conservation Division  
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes  
GRO: Gasoline Range Organics  
DRO: Diesel Range Organics

ORO: Oil Range Organics  
TPH: Total Petroleum Hydrocarbon  
Concentrations in bold exceed the NMOCD Table 1 Closure Criteria for Soils Impacted by a Release



## APPENDIX A

### Well Record and Log

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2904 W 2nd St.  
Roswell, NM 88201  
voice: 575.624.2420  
fax: 575.624.2421  
www.atkinseng.com

03/11/2021

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-4498 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4498Pod1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,

A handwritten signature in black ink that reads "Lucas Middleton". The signature is written in a cursive, flowing style.

Lucas Middleton

Enclosures: as noted above

DSE DII MAR 11 2021 PM 4:22





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

USE ONLY APR 11 2021 PM 4:22


1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4498			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32°	MINUTES 6'	SECONDS 1.96" N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE -103°	50'	26.19" W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW SW NE Sec. 25 T25S R30E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 02/24/2021	DRILLING ENDED 02/24/2021	DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 109	DEPTH WATER FIRST ENCOUNTERED (FT) n/a			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a			
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	109	±6.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

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

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

DSE DJT MPR 11 2021 PM 4:22

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES/NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	34	34	Caliche, tan, no odor, no stain, gravel, dry	Y ✓ N	
	34	40	6	sand/ caliche, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
	40	56	16	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
	56	72	16	sandstone, low consolidation, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
	72	79	7	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
	79	109	30	sandstone, low - medium consolidation, tan, no odor, m-f grained, well sorted, m	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:						
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge					
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:  <div style="display: flex; justify-content: space-between;"> <div>               SIGNATURE OF DRILLER / PRINT SIGNEE NAME           </div> <div>             Jackie D. Atkins              DATE           </div> </div>					

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 06/30/2017)

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



# PLUGGING RECORD



**NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

## I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4498- POD1

Well owner: XTO ENERGY (Kyle Littrell)

Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland

State: Texas

Zip code: 79707

## II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/21

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):  
Shane Eldridge

4) Date well plugging began: 03/02/2021 Date well plugging concluded: 03/02/2021

5) GPS Well Location: Latitude: 32 deg, 6 min, 1.96 sec  
Longitude: -103 deg, 50 min, 26.19 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 109 ft below ground level (bgl),  
by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/01/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):



- 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

<u>Depth</u> (ft bgl)	<u>Plugging Material Used</u> (include any additives used)	<u>Volume of Material Placed</u> (gallons)	<u>Theoretical Volume of Borehole/ Casing</u> (gallons)	<u>Placement Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
0-10'	Hydrated Bentonite	Approx. 16 gallons	16 gallons	Augers	
10'-109'	Drill Cuttings	Approx. 171 gallons	171 gallons	Boring	

COPY  
APPLICANT

USE DTJ MAR 11 2021 PM 4:22

MULTIPLY	BY	AND OBTAIN
cubic feet x 7.4805	=	gallons
cubic yards x 201.97	=	gallons

### III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

*Jack Atkins*

Signature of Well Driller

03/11/2021

Date






# 2020-03-10\_C-4498-POD1\_OSE\_Well Record and Log-forsign

Final Audit Report

2021-03-11

Created:	2021-03-11
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAQ2m7g1wGV8cRoBzMugpPTk25-4ojFW8H

## "2020-03-10\_C-4498-POD1\_OSE\_Well Record and Log-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)  
2021-03-11 - 7:17:39 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature  
2021-03-11 - 7:18:18 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)  
2021-03-11 - 7:29:33 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)  
Signature Date: 2021-03-11 - 7:31:05 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.  
2021-03-11 - 7:31:05 PM GMT

APPLICANT  
★  
COPY

OSE DJT MAR 11 2021 PM 4:22





2904 W 2nd St.  
Roswell, NM 88201  
voice: 575.624.2420  
fax: 575.624.2421  
[www.atkinseng.com](http://www.atkinseng.com)

03/10/2021

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-1860 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-1860 Pod1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,

A handwritten signature in black ink that reads "Lucas Middleton".

Lucas Middleton

Enclosures: as noted above

REC-07-0003 2021-06-01



# PLUGGING RECORD



**NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

## I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4500- POD1

Well owner: XTO ENERGY (Kyle Littrell)

Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland

State: Texas

Zip code: 79707

## II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins ( Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge

4) Date well plugging began: 04/27/2021 Date well plugging concluded: 04/27/2021

5) GPS Well Location: Latitude: 32 deg, 6 min, 6.96 sec  
Longitude: 103 deg, 47 min, 6.75 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 110 ft below ground level (bgl),  
by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/01/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

USE OF 4/5/2021 06:30

- For each interval plugged, describe within the following columns:**

**III. SIGNATURE:**

Jack Atkins

05/05/2021

**Signature of Well Driller**

Date \_\_\_\_\_

Released to Imaging: 7/27/2022 3:18:56 PM






# 2021-05-05\_C-4500\_Plugging Record-forsign

Final Audit Report

2021-05-05

Created:	2021-05-05
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAABAK9L5xmxdw4gebAaYJQqFC_WD1hBxmhv

## "2021-05-05\_C-4500\_Plugging Record-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)  
2021-05-05 - 8:58:09 PM GMT- IP address: 69.21.248.123
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2021-05-05 - 8:58:30 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)  
2021-05-05 - 9:30:11 PM GMT- IP address: 64.90.153.232
-  Document e-signed by Jack Atkins (jack@atkinseng.com)  
Signature Date: 2021-05-05 - 9:30:31 PM GMT - Time Source: server- IP address: 64.90.153.232
-  Agreement completed.  
2021-05-05 - 9:30:31 PM GMT



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4500			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 6	SECONDS 6.96 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 103	47	6.75 W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SE NW Sec. 28 T25S R31E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 03/24/2021		DRILLING ENDED 03/24/2021		DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	110	±6.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

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

FILE NO.


POD NO.

TRN NO.

LOCATION

WELL TAG ID NO.

PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	1	1	Caliche, no odor, no stain, tan, light-brown	Y ✓ N	
	1	3	2	Sand, no odor, no stain, m-f, well sorted, brown, trace silt, low consolidation	Y ✓ N	
	3	7	4	Sandy clay, no odor, no stain, m-f, brown, well sorted, low plasticity, cohesive	Y ✓ N	
	7	23	16	Caliche, tan, light brown sand, m-f grained, poorly sorted, low consolidation	Y ✓ N	
	23	110	87	sand, brown, no odor, no stain, fine grained, well sorted, low consolidation	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:						
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: PLU 28 BS 126H, Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge					
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:  <div style="display: flex; justify-content: space-between;"> <div>             SIGNATURE OF DRILLER / PRINT SIGNEE NAME         </div> <div>           Jackie D. Atkins            DATE         </div> </div>					

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 06/30/2017)

FILE NO.

POD NO.

TRN NO.

LOCATION

WELL TAG ID NO.

PAGE 2 OF 2



# 2021-05-05\_C-4500\_OSE\_Well Record and Log\_plu-forsign

Final Audit Report

2021-05-05

Created:	2021-05-05
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA_LWDwbNSqlSjjUwKTERilqyesTFMr2Q

## "2021-05-05\_C-4500\_OSE\_Well Record and Log\_plu-forsign" History



Document created by Lucas Middleton (lucas@atkinseng.com)

2021-05-05 - 8:57:19 PM GMT- IP address: 69.21.248.123



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2021-05-05 - 8:57:45 PM GMT



Email viewed by Jack Atkins (jack@atkinseng.com)

2021-05-05 - 9:29:12 PM GMT- IP address: 64.90.153.232



Document e-signed by Jack Atkins (jack@atkinseng.com)

Signature Date: 2021-05-05 - 9:29:47 PM GMT - Time Source: server- IP address: 64.90.153.232



Agreement completed.

2021-05-05 - 9:29:47 PM GMT




Adobe Sign



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)						(NAD83 UTM in meters)	
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
NA	C 04500 POD1	4	4	1	28	25S	31E	614620	3552380 
<hr/>									
<b>Driller License:</b> 1249		<b>Driller Company:</b>				ATKINS ENGINEERING ASSOC. INC.			
<b>Driller Name:</b>		ATKINS, JACKIE D.UELENER							
<b>Drill Start Date:</b> 03/24/2021		<b>Drill Finish Date:</b>				03/24/2021		<b>Plug Date:</b> 04/27/2021	
<b>Log File Date:</b> 05/05/2021		<b>PCW Rcv Date:</b>				<b>Source:</b>			
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>				<b>Estimated Yield:</b>			
<b>Casing Size:</b>		<b>Depth Well:</b>				<b>Depth Water:</b>			
<hr/>									

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/17/22 12:40 PM

POINT OF DIVERSION SUMMARY





## APPENDIX B

### Photographic Log

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**Photographic Log**

XTO Energy, Inc.

Poker Lake Unit 25 Brushy Draw

Incident Number NAPP2201441915



Photograph 1

Date: February 16, 2022

Description: View of release area during initial assessment.



Photograph 2

Date: February 16, 2022

Description: View of release area during initial assessment.



Photograph 3

Date: May 19, 2022

Description: View during delineation activities.



Photograph 4

Date: May 19, 2022


Description: View during delineation activities.




## APPENDIX C


### Lithologic / Soil Sampling Logs

---

								Sample Name: <b>SS01</b>		Date: <b>05/19/2022</b>	
								Site Name: <b>Poker Lake Unit 25 Brushy Draw</b>			
								Incident Number: <b>NAPP2201441915</b>			
								Job Number: <b>03E1558030</b>			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: <b>EC</b>		Method: <b>Backhoe</b>	
Coordinates:								Hole Diameter: <b>NA</b>		Total Depth: <b>2'</b>	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	<132	0.4	N	SS01A	1	1	SW-SM	SAND w/ clay, some caliche gravel, well graded, brown/gray, no stain, no odor.			
D	<132	0.4	N	SS01B	2	2	SW-SM	SAA			
<p style="text-align: center;">TD @ 2 foot bgs</p>											

 <b>ENSOLUM</b>		Sample Name: <b>SS02</b>		Date: <b>05/19/2022</b>				
		Site Name: <b>Poker Lake Unit 25 Brushy Draw</b>						
		Incident Number: <b>NAPP2201441915</b>						
		Job Number: <b>03E1558030</b>						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>				Logged By: <b>EC</b>		Method: <b>Backhoe</b>		
Coordinates:				Hole Diameter: <b>NA</b>		Total Depth: <b>2'</b>		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<132	0.8	N	SS02A	1	1	SW-SM	SAND w/ clay, some caliche gravel, well graded, brown/gray, no stain, no odor.
D	<132	0.4	N	SS02B	2	2	SW-SM	SAA
TD @ 2 foot bgs								



								Sample Name: <b>SS03</b>		Date: <b>05/19/2022</b>	
								Site Name: <b>Poker Lake Unit 25 Brushy Draw</b>			
								Incident Number: <b>NAPP2201441915</b>			
								Job Number: <b>03E1558030</b>			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: <b>EC</b>		Method: <b>Backhoe</b>	
Coordinates:								Hole Diameter: <b>NA</b>		Total Depth: <b>2'</b>	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	<132	0.6	N	SS03A	1	1	SW-SM	SAND w/ clay, some caliche gravel, well graded, brown/gray, no stain, no odor.			
D	<132	0.4	N	SS03B	2	2	SW-SM	SAA			
<p style="text-align: center;">TD @ 2 foot bgs</p>											



## APPENDIX D

### Laboratory Analytical Reports & Chain-of-Custody Documentation

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## Environment Testing America

### ANALYTICAL REPORT

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad, NM 88220  
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Laboratory Job ID: 890-1989-1

Laboratory SDG: 31403236.022.0129 task17.02

Client Project/Site: PLU 25 SD Satellite

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
2/28/2022 3:32:19 PM

Jessica Kramer, Project Manager  
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*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Laboratory Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

**Job ID: 890-1989-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-1989-1****Receipt**

The samples were received on 2/21/2022 11:53 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 1.8°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20198 and analytical batch 880-20288 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 880-20076 and analytical batch 880-20020 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.

**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: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

Client Sample ID: SS01

Lab Sample ID: 890-1989-1

Date Collected: 02/16/22 14:00

Matrix: Solid

Date Received: 02/21/22 11:53

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/24/22 10:28	02/27/22 01:18	1
Toluene	0.00771		0.00202	mg/Kg		02/24/22 10:28	02/27/22 01:18	1
Ethylbenzene	0.0741		0.00202	mg/Kg		02/24/22 10:28	02/27/22 01:18	1
m-Xylene & p-Xylene	0.0702		0.00404	mg/Kg		02/24/22 10:28	02/27/22 01:18	1
o-Xylene	0.0965		0.00202	mg/Kg		02/24/22 10:28	02/27/22 01:18	1
Xylenes, Total	0.167		0.00404	mg/Kg		02/24/22 10:28	02/27/22 01:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	02/24/22 10:28	02/27/22 01:18	1
1,4-Difluorobenzene (Surr)	86		70 - 130	02/24/22 10:28	02/27/22 01:18	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.249		0.00404	mg/Kg			02/28/22 10:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	375		50.0	mg/Kg			02/23/22 11:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 15:52	02/23/22 01:07	1
Diesel Range Organics (Over C10-C28)	375		50.0	mg/Kg		02/22/22 15:52	02/23/22 01:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 15:52	02/23/22 01:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			02/22/22 15:52	02/23/22 01:07	1
o-Terphenyl	96		70 - 130			02/22/22 15:52	02/23/22 01:07	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12800		250	mg/Kg			02/24/22 09:19	50

Client Sample ID: SS02

Lab Sample ID: 890-1989-2

Date Collected: 02/16/22 14:09

Matrix: Solid

Date Received: 02/21/22 11:53

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:28	02/27/22 01:39	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:28	02/27/22 01:39	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:28	02/27/22 01:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/24/22 10:28	02/27/22 01:39	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:28	02/27/22 01:39	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/24/22 10:28	02/27/22 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	02/24/22 10:28	02/27/22 01:39	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

Client Sample ID: SS02

Lab Sample ID: 890-1989-2

Date Collected: 02/16/22 14:09

Matrix: Solid

Date Received: 02/21/22 11:53

Sample Depth: 0.25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	74		70 - 130	02/24/22 10:28	02/27/22 01:39	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/28/22 10:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	131		49.9	mg/Kg			02/23/22 11:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/22/22 15:52	02/23/22 01:29	1
Diesel Range Organics (Over C10-C28)	131		49.9	mg/Kg		02/22/22 15:52	02/23/22 01:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/22 15:52	02/23/22 01:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			02/22/22 15:52	02/23/22 01:29	1
o-Terphenyl	80		70 - 130			02/22/22 15:52	02/23/22 01:29	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	777		25.0	mg/Kg			02/24/22 09:28	5

Client Sample ID: SS03

Lab Sample ID: 890-1989-3

Date Collected: 02/16/22 14:11

Matrix: Solid

Date Received: 02/21/22 11:53

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/24/22 10:28	02/27/22 01:59	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/24/22 10:28	02/27/22 01:59	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/24/22 10:28	02/27/22 01:59	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/24/22 10:28	02/27/22 01:59	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/24/22 10:28	02/27/22 01:59	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/24/22 10:28	02/27/22 01:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	02/24/22 10:28	02/27/22 01:59	1
1,4-Difluorobenzene (Surr)	94		70 - 130	02/24/22 10:28	02/27/22 01:59	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			02/28/22 10:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	140		50.0	mg/Kg			02/23/22 11:22	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

Client Sample ID: SS03

Lab Sample ID: 890-1989-3

Date Collected: 02/16/22 14:11

Matrix: Solid

Date Received: 02/21/22 11:53

Sample Depth: 0.25

## 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		02/22/22 15:52	02/23/22 01:50	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>140</b>		50.0	mg/Kg		02/22/22 15:52	02/23/22 01:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 15:52	02/23/22 01:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130			02/22/22 15:52	02/23/22 01:50	1
o-Terphenyl	80		70 - 130			02/22/22 15:52	02/23/22 01:50	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1000</b>		25.2	mg/Kg			02/24/22 09:37	5



## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

## 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)
880-11501-A-1-C MS	Matrix Spike	104	98
880-11501-A-1-D MSD	Matrix Spike Duplicate	108	100
890-1989-1	SS01	116	86
890-1989-2	SS02	118	74
890-1989-3	SS03	109	94
LCS 880-20198/1-A	Lab Control Sample	104	103
LCSD 880-20198/2-A	Lab Control Sample Dup	102	102
MB 880-20197/5-A	Method Blank	95	98
MB 880-20198/5-A	Method Blank	97	96
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1985-A-1-B MS	Matrix Spike	79	84
890-1985-A-1-C MSD	Matrix Spike Duplicate	79	82
890-1989-1	SS01	93	96
890-1989-2	SS02	83	80
890-1989-3	SS03	79	80
<b>Surrogate Legend</b>			
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 880-20076/2-A	Lab Control Sample	107	112
LCSD 880-20076/3-A	Lab Control Sample Dup	97	110
MB 880-20076/1-A	Method Blank	92	100
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

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

Lab Sample ID: MB 880-20197/5-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20197

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 10:24	02/25/22 23:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	02/24/22 10:24	02/25/22 23:18	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/24/22 10:24	02/25/22 23:18	1

Lab Sample ID: MB 880-20198/5-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20198

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:28	02/26/22 17:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:28	02/26/22 17:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:28	02/26/22 17:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 10:28	02/26/22 17:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:28	02/26/22 17:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 10:28	02/26/22 17:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	02/24/22 10:28	02/26/22 17:30	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/24/22 10:28	02/26/22 17:30	1

Lab Sample ID: LCS 880-20198/1-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09909		mg/Kg		99	70 - 130
Toluene	0.100	0.09438		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09155		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	0.200	0.2087		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1037		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-20198/2-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20198

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08953		mg/Kg		90	70 - 130	10	35

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

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

Lab Sample ID: LCSD 880-20198/2-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20198

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.08354		mg/Kg		84	70 - 130	12	35
Ethylbenzene	0.100	0.08194		mg/Kg		82	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.1894		mg/Kg		95	70 - 130	10	35
o-Xylene	0.100	0.09718		mg/Kg		97	70 - 130	6	35

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

Lab Sample ID: 880-11501-A-1-C MS

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20198

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U F1 F2	0.101	0.07725		mg/Kg		77	70 - 130
Toluene	<0.00202	U F1 F2	0.101	0.07728		mg/Kg		76	70 - 130
Ethylbenzene	<0.00202	U F1 F2	0.101	0.07397		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00404	U F1 F2	0.201	0.1703		mg/Kg		84	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.08428		mg/Kg		83	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-11501-A-1-D MSD

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20198

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0996	0.05140	F1 F2	mg/Kg		52	70 - 130	40	35
Toluene	<0.00202	U F1 F2	0.0996	0.04948	F1 F2	mg/Kg		49	70 - 130	44	35
Ethylbenzene	<0.00202	U F1 F2	0.0996	0.04974	F1 F2	mg/Kg		49	70 - 130	39	35
m-Xylene & p-Xylene	<0.00404	U F1 F2	0.199	0.1148	F1 F2	mg/Kg		57	70 - 130	39	35
o-Xylene	<0.00202	U F1	0.0996	0.05988	F1	mg/Kg		60	70 - 130	34	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-20076/1-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20076

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		02/22/22 15:52	02/22/22 18:46	1

Eurofins Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

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

Lab Sample ID: MB 880-20076/1-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20076

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		02/22/22 15:52	02/22/22 18:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 15:52	02/22/22 18:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			02/22/22 15:52	02/22/22 18:46	1
o-Terphenyl	100		70 - 130			02/22/22 15:52	02/22/22 18:46	1

Lab Sample ID: LCS 880-20076/2-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	926.5		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	969.7		mg/Kg		97	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	107		70 - 130				
o-Terphenyl	112		70 - 130				

Lab Sample ID: LCSD 880-20076/3-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20076

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	904.1		mg/Kg		90	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	910.9		mg/Kg		91	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	97		70 - 130						
o-Terphenyl	110		70 - 130						

Lab Sample ID: 890-1985-A-1-B MS

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20076

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 F1	1000	1471	F1	mg/Kg		144	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1	1000	1563	F1	mg/Kg		153	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	79		70 - 130						
o-Terphenyl	84		70 - 130						

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

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

Lab Sample ID: 890-1985-A-1-C MSD

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20076

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 F1	998	1514	F1	mg/Kg		149	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	1556	F1	mg/Kg		153	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	79		70 - 130								
o-Terphenyl	82		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20131/1-A

Matrix: Solid

Analysis Batch: 20163

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			02/24/22 08:26	1

Lab Sample ID: LCS 880-20131/2-A

Matrix: Solid

Analysis Batch: 20163

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.0		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-20131/3-A

Matrix: Solid

Analysis Batch: 20163

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	246.3		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-1988-A-12-C MS

Matrix: Solid

Analysis Batch: 20163

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	188		253	452.1		mg/Kg		104	90 - 110

Lab Sample ID: 890-1988-A-12-D MSD

Matrix: Solid

Analysis Batch: 20163

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	188		253	440.2		mg/Kg		100	90 - 110	3	20

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

## GC VOA

## Prep Batch: 20197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20197/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 20198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Total/NA	Solid	5035	
890-1989-2	SS02	Total/NA	Solid	5035	
890-1989-3	SS03	Total/NA	Solid	5035	
MB 880-20198/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20198/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20198/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11501-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-11501-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 20288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Total/NA	Solid	8021B	20198
890-1989-2	SS02	Total/NA	Solid	8021B	20198
890-1989-3	SS03	Total/NA	Solid	8021B	20198
MB 880-20197/5-A	Method Blank	Total/NA	Solid	8021B	20197
MB 880-20198/5-A	Method Blank	Total/NA	Solid	8021B	20198
LCS 880-20198/1-A	Lab Control Sample	Total/NA	Solid	8021B	20198
LCSD 880-20198/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20198
880-11501-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	20198
880-11501-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20198

## Analysis Batch: 20470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Total/NA	Solid	Total BTEX	
890-1989-2	SS02	Total/NA	Solid	Total BTEX	
890-1989-3	SS03	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 20020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Total/NA	Solid	8015B NM	20076
890-1989-2	SS02	Total/NA	Solid	8015B NM	20076
890-1989-3	SS03	Total/NA	Solid	8015B NM	20076
MB 880-20076/1-A	Method Blank	Total/NA	Solid	8015B NM	20076
LCS 880-20076/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20076
LCSD 880-20076/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20076
890-1985-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	20076
890-1985-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20076

## Prep Batch: 20076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Total/NA	Solid	8015NM Prep	
890-1989-2	SS02	Total/NA	Solid	8015NM Prep	
890-1989-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-20076/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20076/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

## GC Semi VOA (Continued)

## Prep Batch: 20076 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-20076/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1985-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1985-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 20146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Total/NA	Solid	8015 NM	
890-1989-2	SS02	Total/NA	Solid	8015 NM	
890-1989-3	SS03	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 20131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Soluble	Solid	DI Leach	
890-1989-2	SS02	Soluble	Solid	DI Leach	
890-1989-3	SS03	Soluble	Solid	DI Leach	
MB 880-20131/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20131/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20131/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1988-A-12-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1988-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 20163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1989-1	SS01	Soluble	Solid	300.0	20131
890-1989-2	SS02	Soluble	Solid	300.0	20131
890-1989-3	SS03	Soluble	Solid	300.0	20131
MB 880-20131/1-A	Method Blank	Soluble	Solid	300.0	20131
LCS 880-20131/2-A	Lab Control Sample	Soluble	Solid	300.0	20131
LCSD 880-20131/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20131
890-1988-A-12-C MS	Matrix Spike	Soluble	Solid	300.0	20131
890-1988-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20131

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

Client Sample ID: SS01

Lab Sample ID: 890-1989-1

Date Collected: 02/16/22 14:00

Matrix: Solid

Date Received: 02/21/22 11:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20198	02/24/22 10:28	KL	XEN MID
Total/NA	Analysis	8021B		1	20288	02/27/22 01:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	20470	02/28/22 10:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20146	02/23/22 11:22	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20076	02/22/22 15:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20020	02/23/22 01:07	AJ	XEN MID
Soluble	Leach	DI Leach			20131	02/23/22 09:56	CH	XEN MID
Soluble	Analysis	300.0		50	20163	02/24/22 09:19	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1989-2

Date Collected: 02/16/22 14:09

Matrix: Solid

Date Received: 02/21/22 11:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20198	02/24/22 10:28	KL	XEN MID
Total/NA	Analysis	8021B		1	20288	02/27/22 01:39	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	20470	02/28/22 10:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20146	02/23/22 11:22	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20076	02/22/22 15:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20020	02/23/22 01:29	AJ	XEN MID
Soluble	Leach	DI Leach			20131	02/23/22 09:56	CH	XEN MID
Soluble	Analysis	300.0		5	20163	02/24/22 09:28	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1989-3

Date Collected: 02/16/22 14:11

Matrix: Solid

Date Received: 02/21/22 11:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20198	02/24/22 10:28	KL	XEN MID
Total/NA	Analysis	8021B		1	20288	02/27/22 01:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	20470	02/28/22 10:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20146	02/23/22 11:22	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20076	02/22/22 15:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20020	02/23/22 01:50	AJ	XEN MID
Soluble	Leach	DI Leach			20131	02/23/22 09:56	CH	XEN MID
Soluble	Analysis	300.0		5	20163	02/24/22 09:37	CH	XEN MID

## Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

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.  
Project/Site: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

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: PLU 25 SD Satellite

Job ID: 890-1989-1  
SDG: 31403236.022.0129 task17.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1989-1	SS01	Solid	02/16/22 14:00	02/21/22 11:53	0.25
890-1989-2	SS02	Solid	02/16/22 14:09	02/21/22 11:53	0.25
890-1989-3	SS03	Solid	02/16/22 14:11	02/21/22 11:53	0.25

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 505-3334  
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Phoenix, AZ (480-335-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 233-3927  
Hobbs, NM (575-392-7550)

## Chain of Custody

**Work Order No-**

Project Manager:		Kalei Jennings		Bill to: (if different)		Adrain Baker	
Company Name:		WSP USA		Company Name:		XTO Energy, INC	
Address:		3300 North A Street Building 1, unit 222		Address:		3104 E Green St	
City, State ZIP:		Midland, Texas 79705		City, State ZIP:		Carlsbad, NM 88220	
Phone:		817-683-2503		Email:		Kalei.jennings@wsp.com	

Work Order Comments			
Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Rowfields <input type="checkbox"/> RC <input type="checkbox"/> \$pertund <input type="checkbox"/> State of Project: Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> T/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:			

[illegible]

**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
<i>[Signature]</i>	<i>[Signature]</i>	2/21/22 11:32			



## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1989-1

SDG Number: 31403236.022.0129 task17.02

Login Number: 1989

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: 890-1989-1

SDG Number: 31403236.022.0129 task17.02

Login Number: 1989

List Source: Eurofins Midland

List Number: 2

List Creation: 02/22/22 02:59 PM

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1990-1

Laboratory SDG: 31403236.022.0129 TASK 17.02

Client Project/Site: PLU 25 BD SATELLITE

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
2/28/2022 3:27:26 PM

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

#### LINKS

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

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

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Laboratory Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

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

**Case Narrative**

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

**Job ID: 890-1990-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-1990-1****Receipt**

The sample was received on 2/21/2022 11:53 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 1.8°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20197 and analytical batch 880-20288 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 880-20076 and analytical batch 880-20020 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.

**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: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

Client Sample ID: SS06

Lab Sample ID: 890-1990-1

Date Collected: 02/16/22 14:08

Matrix: Solid

Date Received: 02/21/22 11:53

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:24	02/26/22 13:39	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:24	02/26/22 13:39	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:24	02/26/22 13:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/24/22 10:24	02/26/22 13:39	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/24/22 10:24	02/26/22 13:39	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/24/22 10:24	02/26/22 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	02/24/22 10:24	02/26/22 13:39	1
1,4-Difluorobenzene (Surr)	92		70 - 130	02/24/22 10:24	02/26/22 13:39	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/28/22 10:45	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			02/23/22 11:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/22/22 15:52	02/23/22 02:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/22/22 15:52	02/23/22 02:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/22 15:52	02/23/22 02:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 130	02/22/22 15:52	02/23/22 02:12	1
o-Terphenyl	75		70 - 130	02/22/22 15:52	02/23/22 02:12	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	281		4.98	mg/Kg			02/24/22 09:46	1

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## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

## 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)
880-11472-A-1-H MS	Matrix Spike	103	94
880-11472-A-1-I MSD	Matrix Spike Duplicate	105	93
890-1990-1	SS06	93	92
LCS 880-20197/1-A	Lab Control Sample	98	101
LCSD 880-20197/2-A	Lab Control Sample Dup	100	101
MB 880-20197/5-A	Method Blank	95	98
MB 880-20288/8	Method Blank	94	98
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1985-A-1-B MS	Matrix Spike	79	84
890-1985-A-1-C MSD	Matrix Spike Duplicate	79	82
890-1990-1	SS06	71	75
<b>Surrogate Legend</b>			
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 880-20076/2-A	Lab Control Sample	107	112
LCSD 880-20076/3-A	Lab Control Sample Dup	97	110
MB 880-20076/1-A	Method Blank	92	100
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

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

Lab Sample ID: MB 880-20197/5-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20197

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:24	02/25/22 23:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 10:24	02/25/22 23:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	02/24/22 10:24	02/25/22 23:18	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/24/22 10:24	02/25/22 23:18	1

Lab Sample ID: LCS 880-20197/1-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20197

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09125		mg/Kg		91	70 - 130
Toluene	0.100	0.08631		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08816		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.2041		mg/Kg		102	70 - 130
o-Xylene	0.100	0.1026		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-20197/2-A

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20197

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1024		mg/Kg		102	70 - 130	11	35
Toluene	0.100	0.09436		mg/Kg		94	70 - 130	9	35
Ethylbenzene	0.100	0.09471		mg/Kg		95	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2180		mg/Kg		109	70 - 130	7	35
o-Xylene	0.100	0.1085		mg/Kg		109	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-11472-A-1-H MS

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20197

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U F1	0.100	0.02139	F1	mg/Kg		21	70 - 130
Toluene	<0.00201	U F1	0.100	0.02146	F1	mg/Kg		21	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

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

Lab Sample ID: 880-11472-A-1-H MS

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20197

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U F1	0.100	0.02081	F1	mg/Kg		20	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.04757	F1	mg/Kg		23	70 - 130
o-Xylene	<0.00201	U F1	0.100	0.02679	F1	mg/Kg		26	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-11472-A-1-I MSD

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20197

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0998	0.02062	F1	mg/Kg		21	70 - 130	4	35
Toluene	<0.00201	U F1	0.0998	0.02280	F1	mg/Kg		22	70 - 130	6	35
Ethylbenzene	<0.00201	U F1	0.0998	0.02131	F1	mg/Kg		20	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.05087	F1	mg/Kg		25	70 - 130	7	35
o-Xylene	<0.00201	U F1	0.0998	0.02864	F1	mg/Kg		28	70 - 130	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: MB 880-20288/8

Matrix: Solid

Analysis Batch: 20288

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			02/25/22 11:41	1
Toluene	<0.00200	U	0.00200	mg/Kg			02/25/22 11:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			02/25/22 11:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			02/25/22 11:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			02/25/22 11:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			02/25/22 11:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130		02/25/22 11:41	1
1,4-Difluorobenzene (Surr)	98		70 - 130		02/25/22 11:41	1

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

Lab Sample ID: MB 880-20076/1-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20076

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		02/22/22 15:52	02/22/22 18:46	1

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

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

Lab Sample ID: MB 880-20076/1-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20076

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		02/22/22 15:52	02/22/22 18:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 15:52	02/22/22 18:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			02/22/22 15:52	02/22/22 18:46	1
o-Terphenyl	100		70 - 130			02/22/22 15:52	02/22/22 18:46	1

Lab Sample ID: LCS 880-20076/2-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	926.5		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	969.7		mg/Kg		97	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	107		70 - 130				
o-Terphenyl	112		70 - 130				

Lab Sample ID: LCSD 880-20076/3-A

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20076

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	904.1		mg/Kg		90	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	910.9		mg/Kg		91	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	97		70 - 130						
o-Terphenyl	110		70 - 130						

Lab Sample ID: 890-1985-A-1-B MS

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20076

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 F1	1000	1471	F1	mg/Kg		144	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1	1000	1563	F1	mg/Kg		153	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	79		70 - 130						
o-Terphenyl	84		70 - 130						

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

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

Lab Sample ID: 890-1985-A-1-C MSD

Matrix: Solid

Analysis Batch: 20020

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20076

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 F1	998	1514	F1	mg/Kg		149	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	1556	F1	mg/Kg		153	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	79		70 - 130								
o-Terphenyl	82		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20131/1-A

Matrix: Solid

Analysis Batch: 20163

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			02/24/22 08:26	1

Lab Sample ID: LCS 880-20131/2-A

Matrix: Solid

Analysis Batch: 20163

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.0		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-20131/3-A

Matrix: Solid

Analysis Batch: 20163

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	246.3		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-1988-A-12-C MS

Matrix: Solid

Analysis Batch: 20163

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	188		253	452.1		mg/Kg		104	90 - 110

Lab Sample ID: 890-1988-A-12-D MSD

Matrix: Solid

Analysis Batch: 20163

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	188		253	440.2		mg/Kg		100	90 - 110	3	20

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

## GC VOA

## Prep Batch: 20197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Total/NA	Solid	5035	
MB 880-20197/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20197/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20197/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11472-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
880-11472-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 20288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Total/NA	Solid	8021B	20197
MB 880-20197/5-A	Method Blank	Total/NA	Solid	8021B	20197
MB 880-20288/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-20197/1-A	Lab Control Sample	Total/NA	Solid	8021B	20197
LCSD 880-20197/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20197
880-11472-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	20197
880-11472-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20197

## Analysis Batch: 20466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 20020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Total/NA	Solid	8015B NM	20076
MB 880-20076/1-A	Method Blank	Total/NA	Solid	8015B NM	20076
LCS 880-20076/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20076
LCSD 880-20076/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20076
890-1985-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	20076
890-1985-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20076

## Prep Batch: 20076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-20076/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20076/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20076/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1985-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1985-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 20147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 20131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Soluble	Solid	DI Leach	
MB 880-20131/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20131/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

Eurofins Carlsbad



## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

## HPLC/IC (Continued)

## Leach Batch: 20131 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-20131/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1988-A-12-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1988-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 20163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1990-1	SS06	Soluble	Solid	300.0	20131
MB 880-20131/1-A	Method Blank	Soluble	Solid	300.0	20131
LCS 880-20131/2-A	Lab Control Sample	Soluble	Solid	300.0	20131
LCSD 880-20131/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20131
890-1988-A-12-C MS	Matrix Spike	Soluble	Solid	300.0	20131
890-1988-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20131

Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

Client Sample ID: SS06  
Date Collected: 02/16/22 14:08  
Date Received: 02/21/22 11:53

Lab Sample ID: 890-1990-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20197	02/24/22 10:24	KL	XEN MID
Total/NA	Analysis	8021B		1	20288	02/26/22 13:39	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	20466	02/28/22 10:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20147	02/23/22 11:22	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20076	02/22/22 15:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20020	02/23/22 02:12	AJ	XEN MID
Soluble	Leach	DI Leach			20131	02/23/22 09:56	CH	XEN MID
Soluble	Analysis	300.0		1	20163	02/24/22 09:46	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.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

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: 890-1990-1

Project/Site: PLU 25 BD SATELLITE

SDG: 31403236.022.0129 TASK 17.02

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

Eurofins Carlsbad

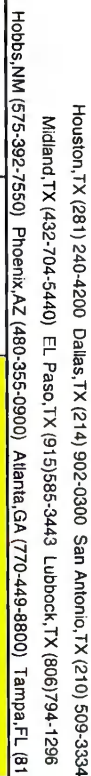
Sample Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1990-1  
SDG: 31403236.022.0129 TASK 17.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1990-1	SS06	Solid	02/16/22 14:08	02/21/22 11:53	0.25

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## Chain of Custody

**Work Order No:**

Page 1 of 1

Project Manager:		Kalei Jennings	Bill to: (if different)	Adrain Baker
Company Name:		WSP USA	Company Name:	XTO Energy, INC.
Address:		3300 North A Street Building 1, unit 222	Address:	3104 E Green St
City, State ZIP:		Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:		817-683-2503	Email:	Kalei.jennings@wsp.com

<b>Work Order Comments</b>		
Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Rowfields <input type="checkbox"/> RC <input type="checkbox"/> Spurfund <input type="checkbox"/>		
State of Project:		
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> T/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>		
Deliverables: EDD <input type="checkbox"/>	ADAPT <input type="checkbox"/>	Other:

[illegible]

Total 200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti 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 Ti 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 <i>[Signature]</i>	<i>[Signature]</i>	2/21/22 11:53 <sup>2</sup>			
3 <i>[Signature]</i>					
5					

Printed Date: 05/14/18 Dow 2018

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1990-1

SDG Number: 31403236.022.0129 TASK 17.02

Login Number: 1990

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

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: 890-1990-1

SDG Number: 31403236.022.0129 TASK 17.02

Login Number: 1990

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/22/22 02:59 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1991-1

Laboratory SDG: 31403236.022.0129 TASK 17.02

Client Project/Site: PLU 25 BD SATELLITE

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
3/2/2022 7:32:59 PM

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

#### LINKS

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results through  
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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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

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

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Laboratory Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
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, 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: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

Job ID: 890-1991-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-1991-1
-----------	-----------------------------

Receipt

The samples were received on 2/21/2022 11:54 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 1.8°C

GC VOA

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

GC Semi VOA

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20088 and analytical batch 880-20116 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: (890-1988-A-8-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

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

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

Client Sample ID: SS04

Lab Sample ID: 890-1991-1

Date Collected: 02/18/22 14:44

Matrix: Solid

Date Received: 02/21/22 11:54

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		03/01/22 10:00	03/01/22 22:52	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/01/22 10:00	03/01/22 22:52	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/01/22 10:00	03/01/22 22:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		03/01/22 10:00	03/01/22 22:52	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/01/22 10:00	03/01/22 22:52	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		03/01/22 10:00	03/01/22 22:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/01/22 10:00	03/01/22 22:52	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/01/22 10:00	03/01/22 22:52	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			03/02/22 20:11	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			02/24/22 15:23	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		02/22/22 16:53	02/24/22 05:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 16:53	02/24/22 05:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 16:53	02/24/22 05:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	02/22/22 16:53	02/24/22 05:42	1
o-Terphenyl	113		70 - 130	02/22/22 16:53	02/24/22 05:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92.4		4.95	mg/Kg			02/24/22 10:12	1

Client Sample ID: SS05

Lab Sample ID: 890-1991-2

Date Collected: 02/18/22 14:57

Matrix: Solid

Date Received: 02/21/22 11:54

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/01/22 10:00	03/01/22 23:13	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/01/22 10:00	03/01/22 23:13	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/01/22 10:00	03/01/22 23:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/01/22 10:00	03/01/22 23:13	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/01/22 10:00	03/01/22 23:13	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/01/22 10:00	03/01/22 23:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/01/22 10:00	03/01/22 23:13	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

Client Sample ID: SS05

Lab Sample ID: 890-1991-2

Date Collected: 02/18/22 14:57

Matrix: Solid

Date Received: 02/21/22 11:54

Sample Depth: 0.25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	03/01/22 10:00	03/01/22 23:13	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/02/22 20:11	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			02/24/22 15:23	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		02/22/22 16:53	02/24/22 06:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/22/22 16:53	02/24/22 06:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/22 16:53	02/24/22 06:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			02/22/22 16:53	02/24/22 06:03	1
o-Terphenyl	92		70 - 130			02/22/22 16:53	02/24/22 06:03	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	203		5.00	mg/Kg			02/24/22 10:21	1

Client Sample ID: SS07

Lab Sample ID: 890-1991-3

Date Collected: 02/18/22 14:48

Matrix: Solid

Date Received: 02/21/22 11:54

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 23:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 23:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 23:33	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/01/22 10:00	03/01/22 23:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 23:33	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/01/22 10:00	03/01/22 23:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/01/22 10:00	03/01/22 23:33	1
1,4-Difluorobenzene (Surr)	100		70 - 130	03/01/22 10:00	03/01/22 23:33	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/02/22 20:11	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			02/24/22 15:23	1

Eurofins Carlsbad



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

Client Sample ID: SS07

Lab Sample ID: 890-1991-3

Date Collected: 02/18/22 14:48

Matrix: Solid

Date Received: 02/21/22 11:54

Sample Depth: 0.25

## 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		02/22/22 16:53	02/24/22 06:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/22/22 16:53	02/24/22 06:24	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/22 16:53	02/24/22 06:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	02/22/22 16:53	02/24/22 06:24	1
o-Terphenyl	75		70 - 130	02/22/22 16:53	02/24/22 06:24	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.0		4.96	mg/Kg			02/24/22 10:30	1

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

## 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)
890-1991-1	SS04	108	101
890-1991-1 MS	SS04	101	101
890-1991-1 MSD	SS04	101	100
890-1991-2	SS05	101	97
890-1991-3	SS07	106	100
LCS 880-20516/1-A	Lab Control Sample	100	100
LCSD 880-20516/2-A	Lab Control Sample Dup	98	100
MB 880-20516/5-A	Method Blank	98	94
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1988-A-8-B MS	Matrix Spike	74	62 S1-
890-1988-A-8-C MSD	Matrix Spike Duplicate	80	63 S1-
890-1991-1	SS04	91	113
890-1991-2	SS05	88	92
890-1991-3	SS07	77	75
LCS 880-20088/2-A	Lab Control Sample	100	99
LCSD 880-20088/3-A	Lab Control Sample Dup	109	104
MB 880-20088/1-A	Method Blank	80	89
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

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

Lab Sample ID: MB 880-20516/5-A

Matrix: Solid

Analysis Batch: 20576

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20516

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 22:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 22:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 22:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/01/22 10:00	03/01/22 22:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/22 10:00	03/01/22 22:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/01/22 10:00	03/01/22 22:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	03/01/22 10:00	03/01/22 22:30	1
1,4-Difluorobenzene (Surr)	94		70 - 130	03/01/22 10:00	03/01/22 22:30	1

Lab Sample ID: LCS 880-20516/1-A

Matrix: Solid

Analysis Batch: 20576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09841		mg/Kg		98	70 - 130
Toluene	0.100	0.09691		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.09431		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1938		mg/Kg		97	70 - 130
o-Xylene	0.100	0.09516		mg/Kg		95	70 - 130

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

Lab Sample ID: LCSD 880-20516/2-A

Matrix: Solid

Analysis Batch: 20576

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20516

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09840		mg/Kg		98	70 - 130	0	35
Toluene	0.100	0.09502		mg/Kg		95	70 - 130	2	35
Ethylbenzene	0.100	0.09401		mg/Kg		94	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1928		mg/Kg		96	70 - 130	1	35
o-Xylene	0.100	0.09419		mg/Kg		94	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-1991-1 MS

Matrix: Solid

Analysis Batch: 20576

Client Sample ID: SS04

Prep Type: Total/NA

Prep Batch: 20516

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U	0.100	0.08390		mg/Kg		84	70 - 130
Toluene	<0.00198	U	0.100	0.07892		mg/Kg		78	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

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

Lab Sample ID: 890-1991-1 MS

Matrix: Solid

Analysis Batch: 20576

Client Sample ID: SS04

Prep Type: Total/NA

Prep Batch: 20516

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U	0.100	0.07572		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1593		mg/Kg		79	70 - 130
o-Xylene	<0.00198	U	0.100	0.08156		mg/Kg		81	70 - 130

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

Lab Sample ID: 890-1991-1 MSD

Matrix: Solid

Analysis Batch: 20576

Client Sample ID: SS04

Prep Type: Total/NA

Prep Batch: 20516

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.0992	0.08432		mg/Kg		85	70 - 130	1	35
Toluene	<0.00198	U	0.0992	0.07784		mg/Kg		78	70 - 130	1	35
Ethylbenzene	<0.00198	U	0.0992	0.07441		mg/Kg		74	70 - 130	2	35
m-Xylene & p-Xylene	<0.00396	U	0.198	0.1563		mg/Kg		78	70 - 130	2	35
o-Xylene	<0.00198	U	0.0992	0.08027		mg/Kg		80	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-20088/1-A

Matrix: Solid

Analysis Batch: 20116

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20088

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		02/22/22 16:53	02/23/22 22:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 16:53	02/23/22 22:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 16:53	02/23/22 22:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130	02/22/22 16:53	02/23/22 22:07	1
o-Terphenyl	89		70 - 130	02/22/22 16:53	02/23/22 22:07	1

Lab Sample ID: LCS 880-20088/2-A

Matrix: Solid

Analysis Batch: 20116

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	823.1		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	1000	951.1		mg/Kg		95	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

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

Lab Sample ID: LCS 880-20088/2-A

Matrix: Solid

Analysis Batch: 20116

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20088

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-20088/3-A

Matrix: Solid

Analysis Batch: 20116

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20088

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	936.3		mg/Kg		94	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1052		mg/Kg		105	70 - 130	10	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	109		70 - 130								
o-Terphenyl	104		70 - 130								

Lab Sample ID: 890-1988-A-8-B MS

Matrix: Solid

Analysis Batch: 20116

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20088

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1299		mg/Kg		130	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	1000	1364	F1	mg/Kg		133	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	74		70 - 130								
o-Terphenyl	62	S1-	70 - 130								

Lab Sample ID: 890-1988-A-8-C MSD

Matrix: Solid

Analysis Batch: 20116

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20088

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1452	F1	mg/Kg		145	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	1420	F1	mg/Kg		139	70 - 130	4	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	80		70 - 130								
o-Terphenyl	63	S1-	70 - 130								

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20131/1-A

Matrix: Solid

Analysis Batch: 20163

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			02/24/22 08:26	1

Lab Sample ID: LCS 880-20131/2-A

Matrix: Solid

Analysis Batch: 20163

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.0		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-20131/3-A

Matrix: Solid

Analysis Batch: 20163

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	246.3		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-1988-A-12-C MS

Matrix: Solid

Analysis Batch: 20163

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	188		253	452.1		mg/Kg		104	90 - 110

Lab Sample ID: 890-1988-A-12-D MSD

Matrix: Solid

Analysis Batch: 20163

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	188		253	440.2		mg/Kg		100	90 - 110	3	20

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

## GC VOA

## Prep Batch: 20516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Total/NA	Solid	5035	
890-1991-2	SS05	Total/NA	Solid	5035	
890-1991-3	SS07	Total/NA	Solid	5035	
MB 880-20516/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20516/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20516/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1991-1 MS	SS04	Total/NA	Solid	5035	
890-1991-1 MSD	SS04	Total/NA	Solid	5035	

## Analysis Batch: 20576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Total/NA	Solid	8021B	20516
890-1991-2	SS05	Total/NA	Solid	8021B	20516
890-1991-3	SS07	Total/NA	Solid	8021B	20516
MB 880-20516/5-A	Method Blank	Total/NA	Solid	8021B	20516
LCS 880-20516/1-A	Lab Control Sample	Total/NA	Solid	8021B	20516
LCSD 880-20516/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20516
890-1991-1 MS	SS04	Total/NA	Solid	8021B	20516
890-1991-1 MSD	SS04	Total/NA	Solid	8021B	20516

## Analysis Batch: 20742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Total/NA	Solid	Total BTEX	
890-1991-2	SS05	Total/NA	Solid	Total BTEX	
890-1991-3	SS07	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 20088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Total/NA	Solid	8015NM Prep	
890-1991-2	SS05	Total/NA	Solid	8015NM Prep	
890-1991-3	SS07	Total/NA	Solid	8015NM Prep	
MB 880-20088/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20088/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1988-A-8-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1988-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 20116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Total/NA	Solid	8015B NM	20088
890-1991-2	SS05	Total/NA	Solid	8015B NM	20088
890-1991-3	SS07	Total/NA	Solid	8015B NM	20088
MB 880-20088/1-A	Method Blank	Total/NA	Solid	8015B NM	20088
LCS 880-20088/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20088
LCSD 880-20088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20088
890-1988-A-8-B MS	Matrix Spike	Total/NA	Solid	8015B NM	20088
890-1988-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20088

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

## GC Semi VOA

## Analysis Batch: 20249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Total/NA	Solid	8015 NM	
890-1991-2	SS05	Total/NA	Solid	8015 NM	
890-1991-3	SS07	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 20131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Soluble	Solid	DI Leach	
890-1991-2	SS05	Soluble	Solid	DI Leach	
890-1991-3	SS07	Soluble	Solid	DI Leach	
MB 880-20131/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20131/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20131/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1988-A-12-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1988-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 20163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1991-1	SS04	Soluble	Solid	300.0	20131
890-1991-2	SS05	Soluble	Solid	300.0	20131
890-1991-3	SS07	Soluble	Solid	300.0	20131
MB 880-20131/1-A	Method Blank	Soluble	Solid	300.0	20131
LCS 880-20131/2-A	Lab Control Sample	Soluble	Solid	300.0	20131
LCSD 880-20131/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20131
890-1988-A-12-C MS	Matrix Spike	Soluble	Solid	300.0	20131
890-1988-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20131

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

Client Sample ID: SS04

Lab Sample ID: 890-1991-1

Date Collected: 02/18/22 14:44

Matrix: Solid

Date Received: 02/21/22 11:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20516	03/01/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20576	03/01/22 22:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20742	03/02/22 20:11	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20249	02/24/22 15:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20088	02/22/22 16:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20116	02/24/22 05:42	AJ	XEN MID
Soluble	Leach	DI Leach			20131	02/23/22 09:56	CH	XEN MID
Soluble	Analysis	300.0		1	20163	02/24/22 10:12	CH	XEN MID

Client Sample ID: SS05

Lab Sample ID: 890-1991-2

Date Collected: 02/18/22 14:57

Matrix: Solid

Date Received: 02/21/22 11:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20516	03/01/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20576	03/01/22 23:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20742	03/02/22 20:11	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20249	02/24/22 15:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20088	02/22/22 16:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20116	02/24/22 06:03	AJ	XEN MID
Soluble	Leach	DI Leach			20131	02/23/22 09:56	CH	XEN MID
Soluble	Analysis	300.0		1	20163	02/24/22 10:21	CH	XEN MID

Client Sample ID: SS07

Lab Sample ID: 890-1991-3

Date Collected: 02/18/22 14:48

Matrix: Solid

Date Received: 02/21/22 11:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20516	03/01/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20576	03/01/22 23:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20742	03/02/22 20:11	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20249	02/24/22 15:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20088	02/22/22 16:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20116	02/24/22 06:24	AJ	XEN MID
Soluble	Leach	DI Leach			20131	02/23/22 09:56	CH	XEN MID
Soluble	Analysis	300.0		1	20163	02/24/22 10:30	CH	XEN MID

## Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

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: 890-1991-1

Project/Site: PLU 25 BD SATELLITE

SDG: 31403236.022.0129 TASK 17.02

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: PLU 25 BD SATELLITE

Job ID: 890-1991-1  
SDG: 31403236.022.0129 TASK 17.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1991-1	SS04	Solid	02/18/22 14:44	02/21/22 11:54	0.25
890-1991-2	SS05	Solid	02/18/22 14:57	02/21/22 11:54	0.25
890-1991-3	SS07	Solid	02/18/22 14:48	02/21/22 11:54	0.25

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- 2
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- 7
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- 10
- 11
- 12
- 13
- 14



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  
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)  
Hobbs, NM (575-392-7550)

Page 1 of 1

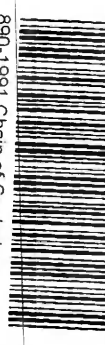
## Chain of Custody

**Work Order No:**

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, INC
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E Greene St
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com



<b>Work Order Comments</b>			
Program: UST/PT	<input type="checkbox"/> RP	<input type="checkbox"/> Growfields	<input type="checkbox"/> RC \$operfund <input type="checkbox"/>
<b>State of Project:</b>			
Reporting: Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> T/U/UST	<input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADaPT	<input type="checkbox"/>	Other: <input type="checkbox"/>

Project Name:	PLU 25 BD Satellite	Turn Around		ANALYSIS REQUEST	 890-1991 Chain of Custody	TAT starts the day received by the lab. If received by 4:30pm
Project Number:	31403236.022.0129 Task 17.02	Routine <input type="checkbox"/>				
P.O. Number:		Rush: <input type="checkbox"/>				
Sampler's Name:	Payton Benner	Due Date:				
<b>SAMPLE RECEIPT</b>						
Temperature (°C):	20/1.0	Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID			
Received Inact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:	-0.2			
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Total Containers:				
Number of Containers						
PA 8015)						
(EPA 0=8021)						
de (EPA 300.0)						

[illegible]

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 Ti Sn U V Zn
<b>TCLP / SPLP 6010:</b> 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti 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 Xcnco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xcnco 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 Xcnco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xcnco, 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
		2/21/22 11:54			

Download Date: 05/14/18 8:09 PM

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1991-1

SDG Number: 31403236.022.0129 TASK 17.02

Login Number: 1991

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: 890-1991-1

SDG Number: 31403236.022.0129 TASK 17.02

Login Number: 1991

List Source: Eurofins Midland

List Number: 2

List Creation: 02/22/22 02:59 PM

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	



Environment Testing  
America

## ANALYTICAL REPORT

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

Laboratory Job ID: 890-2321-1

Laboratory Sample Delivery Group: 03E1558030

Client Project/Site: PLU 25 BD

Revision: 1

For:

Ensolum  
705 W. Wadley  
Suite 210  
Midland, Texas 79701

Attn: Kalei Jennings

Authorized for release by:

5/24/2022 8:20:06 AM

Jessica Kramer, Project Manager  
(432)704-5440

[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)

### LINKS

Review your project  
results through



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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: Ensolum  
Project/Site: PLU 25 BD

Laboratory Job ID: 890-2321-1  
SDG: 03E1558030

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## Definitions/Glossary

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

## Qualifiers

## GC 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.

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

**Job ID: 890-2321-1**

**Laboratory: Eurofins Carlsbad**

### Narrative

#### Job Narrative 890-2321-1

#### REVISION

The report being provided is a revision of the original report sent on 5/23/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID changes.

SS01 @ 1' ----> SS01A  
SS01 @ 2' ----> SS01B  
SS02 @ 1' ----> SS02A  
SS02 @ 2' ----> SS02B  
SS03 @ 1' ----> SS03A  
SS03 @ 2' ----> SS03B.

Report revision history

#### Receipt

The samples were received on 5/19/2022 1:58 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 4.4°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

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: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Client Sample ID: SS01A

Lab Sample ID: 890-2321-1

Date Collected: 05/19/22 09:30

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 13:29	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 13:29	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 13:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/19/22 16:11	05/20/22 13:29	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 13:29	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/19/22 16:11	05/20/22 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	05/19/22 16:11	05/20/22 13:29	1
1,4-Difluorobenzene (Surr)	93		70 - 130	05/19/22 16:11	05/20/22 13:29	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			05/20/22 16:23	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			05/23/22 09:14	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		05/20/22 10:04	05/20/22 13:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 13:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	05/20/22 10:04	05/20/22 13:51	1
o-Terphenyl	127		70 - 130	05/20/22 10:04	05/20/22 13:51	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.4		4.98	mg/Kg			05/20/22 13:42	1

Client Sample ID: SS01B

Lab Sample ID: 890-2321-2

Date Collected: 05/19/22 09:40

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 17:36	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 17:36	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 17:36	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/19/22 16:11	05/20/22 17:36	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 17:36	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/19/22 16:11	05/20/22 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	05/19/22 16:11	05/20/22 17:36	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Client Sample ID: SS01B

Lab Sample ID: 890-2321-2

Date Collected: 05/19/22 09:40

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	05/19/22 16:11	05/20/22 17:36	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/20/22 16:23	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			05/23/22 09:14	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		05/20/22 10:04	05/20/22 14:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 14:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 14:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			05/20/22 10:04	05/20/22 14:14	1
o-Terphenyl	129		70 - 130			05/20/22 10:04	05/20/22 14:14	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.5		4.95	mg/Kg			05/20/22 14:01	1

Client Sample ID: SS02A

Lab Sample ID: 890-2321-3

Date Collected: 05/19/22 10:00

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 17:56	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 17:56	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 17:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/19/22 16:11	05/20/22 17:56	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 17:56	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/19/22 16:11	05/20/22 17:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	05/19/22 16:11	05/20/22 17:56	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/19/22 16:11	05/20/22 17:56	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			05/20/22 16:23	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			05/23/22 09:14	1

Eurofins Carlsbad



## Client Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Client Sample ID: SS02A

Lab Sample ID: 890-2321-3

Date Collected: 05/19/22 10:00

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 14:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 14:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 14:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			05/20/22 10:04	05/20/22 14:37	1
o-Terphenyl	122		70 - 130			05/20/22 10:04	05/20/22 14:37	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.2		4.96	mg/Kg			05/20/22 14:07	1

Client Sample ID: SS02B

Lab Sample ID: 890-2321-4

Date Collected: 05/19/22 10:05

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 18:17	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 18:17	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 18:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/19/22 16:11	05/20/22 18:17	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/19/22 16:11	05/20/22 18:17	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/19/22 16:11	05/20/22 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			05/19/22 16:11	05/20/22 18:17	1
1,4-Difluorobenzene (Surr)	96		70 - 130			05/19/22 16:11	05/20/22 18:17	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			05/20/22 16:23	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			05/23/22 09:14	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		05/20/22 10:04	05/20/22 14:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 14:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 14:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			05/20/22 10:04	05/20/22 14:59	1
o-Terphenyl	122		70 - 130			05/20/22 10:04	05/20/22 14:59	1

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## Client Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Client Sample ID: SS02B

Lab Sample ID: 890-2321-4

Date Collected: 05/19/22 10:05

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 2

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.1		5.04	mg/Kg			05/20/22 14:14	1

Client Sample ID: SS03A

Lab Sample ID: 890-2321-5

Date Collected: 05/19/22 10:20

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		05/19/22 16:11	05/20/22 18:37	1
Toluene	<0.00198	U	0.00198	mg/Kg		05/19/22 16:11	05/20/22 18:37	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		05/19/22 16:11	05/20/22 18:37	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		05/19/22 16:11	05/20/22 18:37	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		05/19/22 16:11	05/20/22 18:37	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		05/19/22 16:11	05/20/22 18:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			05/19/22 16:11	05/20/22 18:37	1
1,4-Difluorobenzene (Surr)	96		70 - 130			05/19/22 16:11	05/20/22 18:37	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			05/20/22 16:23	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			05/23/22 09:14	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		05/20/22 10:04	05/20/22 15:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 15:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 15:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			05/20/22 10:04	05/20/22 15:23	1
o-Terphenyl	115		70 - 130			05/20/22 10:04	05/20/22 15:23	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.4		4.98	mg/Kg			05/20/22 14:20	1

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## Client Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Client Sample ID: SS03B

Lab Sample ID: 890-2321-6

Date Collected: 05/19/22 10:25

Matrix: Solid

Date Received: 05/19/22 13:58

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 18:58	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 18:58	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 18:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/19/22 16:11	05/20/22 18:58	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/19/22 16:11	05/20/22 18:58	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/19/22 16:11	05/20/22 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	316	S1+	70 - 130	05/19/22 16:11	05/20/22 18:58	1
1,4-Difluorobenzene (Surr)	264	S1+	70 - 130	05/19/22 16:11	05/20/22 18:58	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/20/22 16:23	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			05/23/22 09:14	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		05/20/22 10:04	05/20/22 15:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 15:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 15:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	05/20/22 10:04	05/20/22 15:45	1
o-Terphenyl	118		70 - 130	05/20/22 10:04	05/20/22 15:45	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.0		4.96	mg/Kg			05/20/22 14:39	1

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## Surrogate Summary

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

## 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)
880-15003-A-1-A MS	Matrix Spike	116	94
880-15003-A-1-B MSD	Matrix Spike Duplicate	112	96
890-2321-1	SS01A	116	93
890-2321-2	SS01B	110	97
890-2321-3	SS02A	111	96
890-2321-4	SS02B	108	96
890-2321-5	SS03A	115	96
890-2321-6	SS03B	316 S1+	264 S1+
LCS 880-25921/1-A	Lab Control Sample	104	96
LCSD 880-25921/2-A	Lab Control Sample Dup	105	96
MB 880-25921/5-A	Method Blank	105	93

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2318-A-4-D MS	Matrix Spike	102	93
890-2318-A-4-E MSD	Matrix Spike Duplicate	105	96
890-2321-1	SS01A	114	127
890-2321-2	SS01B	115	129
890-2321-3	SS02A	112	122
890-2321-4	SS02B	114	122
890-2321-5	SS03A	106	115
890-2321-6	SS03B	110	118
LCS 880-25967/2-A	Lab Control Sample	112	108
LCSD 880-25967/3-A	Lab Control Sample Dup	101	97
MB 880-25967/1-A	Method Blank	100	112

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

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

Lab Sample ID: MB 880-25921/5-A

Matrix: Solid

Analysis Batch: 25943

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 25921

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/19/22 16:11	05/20/22 11:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/19/22 16:11	05/20/22 11:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/19/22 16:11	05/20/22 11:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/19/22 16:11	05/20/22 11:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/19/22 16:11	05/20/22 11:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/19/22 16:11	05/20/22 11:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	05/19/22 16:11	05/20/22 11:24	1
1,4-Difluorobenzene (Surr)	93		70 - 130	05/19/22 16:11	05/20/22 11:24	1

Lab Sample ID: LCS 880-25921/1-A

Matrix: Solid

Analysis Batch: 25943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09092		mg/Kg		91	70 - 130
Toluene	0.100	0.1006		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2094		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1058		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-25921/2-A

Matrix: Solid

Analysis Batch: 25943

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 25921

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09945		mg/Kg		99	70 - 130	9	35
Toluene	0.100	0.1056		mg/Kg		106	70 - 130	5	35
Ethylbenzene	0.100	0.1094		mg/Kg		109	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2183		mg/Kg		109	70 - 130	4	35
o-Xylene	0.100	0.1130		mg/Kg		113	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 880-15003-A-1-A MS

Matrix: Solid

Analysis Batch: 25943

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25921

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U F1	0.0996	0.06067	F1	mg/Kg		61	70 - 130
Toluene	<0.00198	U F1	0.0996	0.05670	F1	mg/Kg		57	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

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

Lab Sample ID: 880-15003-A-1-A MS

Matrix: Solid

Analysis Batch: 25943

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25921

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.0996	0.03564	F1	mg/Kg		36	70 - 130
m-Xylene & p-Xylene	0.0349		0.199	0.1910		mg/Kg		78	70 - 130
o-Xylene	0.0281		0.0996	0.1080		mg/Kg		80	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-15003-A-1-B MSD

Matrix: Solid

Analysis Batch: 25943

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 25921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00198	U F1	0.101	0.06445	F1	mg/Kg		64	70 - 130	6	35
Toluene	<0.00198	U F1	0.101	0.05590	F1	mg/Kg		56	70 - 130	1	35
Ethylbenzene	<0.00198	U F1	0.101	0.03890	F1	mg/Kg		39	70 - 130	9	35
m-Xylene & p-Xylene	0.0349		0.201	0.2000		mg/Kg		82	70 - 130	5	35
o-Xylene	0.0281		0.101	0.1098		mg/Kg		81	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-25967/1-A

Matrix: Solid

Analysis Batch: 25940

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 25967

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		05/20/22 10:04	05/20/22 11:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 11:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/20/22 10:04	05/20/22 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	05/20/22 10:04	05/20/22 11:37	1
o-Terphenyl	112		70 - 130	05/20/22 10:04	05/20/22 11:37	1

Lab Sample ID: LCS 880-25967/2-A

Matrix: Solid

Analysis Batch: 25940

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25967

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	964.0		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1057		mg/Kg		106	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

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

Lab Sample ID: LCS 880-25967/2-A

Matrix: Solid

Analysis Batch: 25940

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25967

	LCS %Recovery	LCS Qualifier	Limits
Surrogate			
1-Chlorooctane	112		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-25967/3-A

Matrix: Solid

Analysis Batch: 25940

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 25967

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	850.0		mg/Kg		85	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	1000	1094		mg/Kg		109	70 - 130	3	20

	LCSD %Recovery	LCSD Qualifier	Limits
Surrogate			
1-Chlorooctane	101		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: 890-2318-A-4-D MS

Matrix: Solid

Analysis Batch: 25940

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25967

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	804.6		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	955.5		mg/Kg		94	70 - 130		

	MS %Recovery	MS Qualifier	Limits
Surrogate			
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-2318-A-4-E MSD

Matrix: Solid

Analysis Batch: 25940

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 25967

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	999	870.2		mg/Kg		85	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1020		mg/Kg		100	70 - 130	7	20

	MSD %Recovery	MSD Qualifier	Limits
Surrogate			
1-Chlorooctane	105		70 - 130
o-Terphenyl	96		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-25974/1-A

Matrix: Solid

Analysis Batch: 25985

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			05/20/22 13:23	1

Lab Sample ID: LCS 880-25974/2-A

Matrix: Solid

Analysis Batch: 25985

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	250.5		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-25974/3-A

Matrix: Solid

Analysis Batch: 25985

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	274.2		mg/Kg		110	90 - 110	9	20

Lab Sample ID: 890-2321-1 MS

Matrix: Solid

Analysis Batch: 25985

Client Sample ID: SS01A

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	63.4		249	337.9		mg/Kg		110	90 - 110

Lab Sample ID: 890-2321-1 MSD

Matrix: Solid

Analysis Batch: 25985

Client Sample ID: SS01A

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	63.4		249	337.7		mg/Kg		110	90 - 110	0	20

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## QC Association Summary

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

## GC VOA

## Prep Batch: 25921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Total/NA	Solid	5035	
890-2321-2	SS01B	Total/NA	Solid	5035	
890-2321-3	SS02A	Total/NA	Solid	5035	
890-2321-4	SS02B	Total/NA	Solid	5035	
890-2321-5	SS03A	Total/NA	Solid	5035	
890-2321-6	SS03B	Total/NA	Solid	5035	
MB 880-25921/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25921/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25921/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-15003-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-15003-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 25943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Total/NA	Solid	8021B	25921
890-2321-2	SS01B	Total/NA	Solid	8021B	25921
890-2321-3	SS02A	Total/NA	Solid	8021B	25921
890-2321-4	SS02B	Total/NA	Solid	8021B	25921
890-2321-5	SS03A	Total/NA	Solid	8021B	25921
890-2321-6	SS03B	Total/NA	Solid	8021B	25921
MB 880-25921/5-A	Method Blank	Total/NA	Solid	8021B	25921
LCS 880-25921/1-A	Lab Control Sample	Total/NA	Solid	8021B	25921
LCSD 880-25921/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25921
880-15003-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	25921
880-15003-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25921

## Analysis Batch: 25996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Total/NA	Solid	Total BTEX	
890-2321-2	SS01B	Total/NA	Solid	Total BTEX	
890-2321-3	SS02A	Total/NA	Solid	Total BTEX	
890-2321-4	SS02B	Total/NA	Solid	Total BTEX	
890-2321-5	SS03A	Total/NA	Solid	Total BTEX	
890-2321-6	SS03B	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 25940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Total/NA	Solid	8015B NM	25967
890-2321-2	SS01B	Total/NA	Solid	8015B NM	25967
890-2321-3	SS02A	Total/NA	Solid	8015B NM	25967
890-2321-4	SS02B	Total/NA	Solid	8015B NM	25967
890-2321-5	SS03A	Total/NA	Solid	8015B NM	25967
890-2321-6	SS03B	Total/NA	Solid	8015B NM	25967
MB 880-25967/1-A	Method Blank	Total/NA	Solid	8015B NM	25967
LCS 880-25967/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	25967
LCSD 880-25967/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	25967
890-2318-A-4-D MS	Matrix Spike	Total/NA	Solid	8015B NM	25967
890-2318-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	25967

Eurofins Carlsbad

## QC Association Summary

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

## GC Semi VOA

## Prep Batch: 25967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Total/NA	Solid	8015NM Prep	
890-2321-2	SS01B	Total/NA	Solid	8015NM Prep	
890-2321-3	SS02A	Total/NA	Solid	8015NM Prep	
890-2321-4	SS02B	Total/NA	Solid	8015NM Prep	
890-2321-5	SS03A	Total/NA	Solid	8015NM Prep	
890-2321-6	SS03B	Total/NA	Solid	8015NM Prep	
MB 880-25967/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-25967/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-25967/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2318-A-4-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2318-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 26038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Total/NA	Solid	8015 NM	
890-2321-2	SS01B	Total/NA	Solid	8015 NM	
890-2321-3	SS02A	Total/NA	Solid	8015 NM	
890-2321-4	SS02B	Total/NA	Solid	8015 NM	
890-2321-5	SS03A	Total/NA	Solid	8015 NM	
890-2321-6	SS03B	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 25974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Soluble	Solid	DI Leach	
890-2321-2	SS01B	Soluble	Solid	DI Leach	
890-2321-3	SS02A	Soluble	Solid	DI Leach	
890-2321-4	SS02B	Soluble	Solid	DI Leach	
890-2321-5	SS03A	Soluble	Solid	DI Leach	
890-2321-6	SS03B	Soluble	Solid	DI Leach	
MB 880-25974/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-25974/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25974/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2321-1 MS	SS01A	Soluble	Solid	DI Leach	
890-2321-1 MSD	SS01A	Soluble	Solid	DI Leach	

## Analysis Batch: 25985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2321-1	SS01A	Soluble	Solid	300.0	25974
890-2321-2	SS01B	Soluble	Solid	300.0	25974
890-2321-3	SS02A	Soluble	Solid	300.0	25974
890-2321-4	SS02B	Soluble	Solid	300.0	25974
890-2321-5	SS03A	Soluble	Solid	300.0	25974
890-2321-6	SS03B	Soluble	Solid	300.0	25974
MB 880-25974/1-A	Method Blank	Soluble	Solid	300.0	25974
LCS 880-25974/2-A	Lab Control Sample	Soluble	Solid	300.0	25974
LCSD 880-25974/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25974
890-2321-1 MS	SS01A	Soluble	Solid	300.0	25974
890-2321-1 MSD	SS01A	Soluble	Solid	300.0	25974

Eurofins Carlsbad

## Lab Chronicle

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Client Sample ID: SS01A

Lab Sample ID: 890-2321-1

Date Collected: 05/19/22 09:30

Matrix: Solid

Date Received: 05/19/22 13:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	25921	05/19/22 16:11	MR	XEN MID
Total/NA	Analysis	8021B		1			25943	05/20/22 13:29	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			25996	05/20/22 16:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			26038	05/23/22 09:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 13:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25974	05/20/22 11:55	SC	XEN MID
Soluble	Analysis	300.0		1			25985	05/20/22 13:42	SC	XEN MID

Client Sample ID: SS01B

Lab Sample ID: 890-2321-2

Date Collected: 05/19/22 09:40

Matrix: Solid

Date Received: 05/19/22 13:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	25921	05/19/22 16:11	MR	XEN MID
Total/NA	Analysis	8021B		1			25943	05/20/22 17:36	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			25996	05/20/22 16:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			26038	05/23/22 09:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 14:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25974	05/20/22 11:55	SC	XEN MID
Soluble	Analysis	300.0		1			25985	05/20/22 14:01	SC	XEN MID

Client Sample ID: SS02A

Lab Sample ID: 890-2321-3

Date Collected: 05/19/22 10:00

Matrix: Solid

Date Received: 05/19/22 13:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	25921	05/19/22 16:11	MR	XEN MID
Total/NA	Analysis	8021B		1			25943	05/20/22 17:56	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			25996	05/20/22 16:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			26038	05/23/22 09:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 14:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	25974	05/20/22 11:55	SC	XEN MID
Soluble	Analysis	300.0		1			25985	05/20/22 14:07	SC	XEN MID

Client Sample ID: SS02B

Lab Sample ID: 890-2321-4

Date Collected: 05/19/22 10:05

Matrix: Solid

Date Received: 05/19/22 13:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	25921	05/19/22 16:11	MR	XEN MID
Total/NA	Analysis	8021B		1			25943	05/20/22 18:17	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			25996	05/20/22 16:23	AJ	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Client Sample ID: SS02B

Date Collected: 05/19/22 10:05

Date Received: 05/19/22 13:58

Lab Sample ID: 890-2321-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26038	05/23/22 09:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 14:59	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	25974	05/20/22 11:55	SC	XEN MID
Soluble	Analysis	300.0		1			25985	05/20/22 14:14	SC	XEN MID

Client Sample ID: SS03A

Date Collected: 05/19/22 10:20

Date Received: 05/19/22 13:58

Lab Sample ID: 890-2321-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	25921	05/19/22 16:11	MR	XEN MID
Total/NA	Analysis	8021B		1			25943	05/20/22 18:37	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			25996	05/20/22 16:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			26038	05/23/22 09:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 15:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25974	05/20/22 11:55	SC	XEN MID
Soluble	Analysis	300.0		1			25985	05/20/22 14:20	SC	XEN MID

Client Sample ID: SS03B

Date Collected: 05/19/22 10:25

Date Received: 05/19/22 13:58

Lab Sample ID: 890-2321-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	25921	05/19/22 16:11	MR	XEN MID
Total/NA	Analysis	8021B		1			25943	05/20/22 18:58	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			25996	05/20/22 16:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			26038	05/23/22 09:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 15:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	25974	05/20/22 11:55	SC	XEN MID
Soluble	Analysis	300.0		1			25985	05/20/22 14:39	SC	XEN MID

## Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

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: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

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: Ensolum  
Project/Site: PLU 25 BD

Job ID: 890-2321-1  
SDG: 03E1558030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2321-1	SS01A	Solid	05/19/22 09:30	05/19/22 13:58	1
890-2321-2	SS01B	Solid	05/19/22 09:40	05/19/22 13:58	2
890-2321-3	SS02A	Solid	05/19/22 10:00	05/19/22 13:58	1
890-2321-4	SS02B	Solid	05/19/22 10:05	05/19/22 13:58	2
890-2321-5	SS03A	Solid	05/19/22 10:20	05/19/22 13:58	1
890-2321-6	SS03B	Solid	05/19/22 10:25	05/19/22 13:58	2

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

## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



Environment Testing  
Xenco

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 1

Project Manager: Kalei Jennings		Bill to: (if different)	
Company Name: Ensolum		Company Name: xTO Energy	
Address: 705 W. Wadley Ave.		Address: 3104 E. Green St.	
City, State ZIP: Midland, TX 79705		City, State ZIP: Carlsbad, NM 88770	
Phone: 817-683-2503		Email: KJennings@ensolum.com	

Project Name: PLU 25 BD	Turn Around: <input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush	Pres. Code
Project Number: 03E1558030	Due Date: 5/33	
Project Location: Eddy County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name: Eric Carroll		
PO #:		

SAMPLE RECEIPT		Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Samples Received Intact: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Thermometer ID: F100-07		Correction Factor: -0.2	
Cooler Custody Seals: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Temperature Reading: 41.6		Corrected Temperature: 4.4	
Sample Custody Seals: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Total Containers: 5					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SS01 @ 1'	S	5/14/22	9:30	1'	G	1	BTEX			None: NO	DI Water: H <sub>2</sub> O
SS01 @ 2'			9:40	2'		1	TPH			Cool: Cool	MeOH: Me
SS02 @ 1'			10:00	1'		1				HCL: HC	HNO <sub>3</sub> : HN
SS02 @ 2'			10:05	2'		1				H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na
SS03 @ 1'			10:20	1'		1				H <sub>3</sub> PO <sub>4</sub> : HP	
SS03 @ 2'			10:25	2'		1				NaHSO <sub>4</sub> : NABIS	
										Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
										Zn Acetate+NaOH: Zn	
										NaOH+Ascorbic Acid: SAPC	

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 SiO <sub>2</sub> Na Sr Ti 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 Ti U	Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Eric Carroll	S/14/22 1:58	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2321-1

SDG Number: 03E1558030

Login Number: 2321

List Number: 1

Creator: Olivas, Nathaniel

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: Ensolum

Job Number: 890-2321-1

SDG Number: 03E1558030

Login Number: 2321

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 05/20/22 10:39 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	



## APPENDIX E

### NMOCD Notifications

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**From:** [Green, Garrett J](#)  
**To:** [Kalei Jennings](#)  
**Subject:** FW: XTO - Sampling Notification (week of 5/16/22 - 5/20/22)  
**Date:** Wednesday, May 25, 2022 5:03:35 PM

---

[ \*\*EXTERNAL EMAIL\*\* ]

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**From:** Green, Garrett J  
**Sent:** Thursday, May 12, 2022 3:43 PM  
**To:** ocd.enviro@state.nm.us  
**Cc:** DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Aimee Cole <acole@ensolum.com>  
**Subject:** XTO - Sampling Notification (week of 5/16/22 - 5/20/22)

All,

XTO plans to complete final sampling activities at the following sites the week of May 16, 2022.

Monday

- Corral Canyon 8-32 Fed 121H / NAPP2136455950

Tuesday

- Corral Canyon 8-32 Fed 121H / NAPP2136455950

Wednesday

- Ross Draw 25 NW Battery/ NAPP2201444794
- PLU C1 Frac pond/ nAPP2207743395

Thursday

- PLU 25 BD Satellite/NAPP2201441915
- PLU C1 Frac pond/ nAPP2207743395

Friday

- PLU C1 Frac pond/ nAPP2207743395

Thank you,

**Garrett Green**

Environmental Coordinator  
Delaware Business Unit  
(575) 200-0729  
[Garrett.Green@ExxonMobil.com](mailto:Garrett.Green@ExxonMobil.com)

XTO Energy, Inc.

**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 112520

**CONDITIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 112520
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2201441915 POKER LAKE UNIT 25 BRUSHY DRAW SATELLITE, thank you. This closure is approved.	7/27/2022