State of New Mexico
Oil Conservation Division

Incident ID	NAPP2216138431
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: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: __11/01/2022_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: __Jocelyn Harimon_____ Date: __11/01/2022___

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: 1/11/2023

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

Incident ID	NAPP2216138431
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Garrett Green	Contact Telephone 575-200-0729
Contact email garrett.green@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude 32.10429 Longitude -103.83900
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 25 Brushy Draw West CTB	Site Type Central Tank Battery
Date Release Discovered 06/04/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 6.78	Volume Recovered (bbls) 5.00
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release	Corrosion caused a fitting on the water transfer pump to fail, releasing fluids to containment and pad. All free fluids were recovered. A third-party contractor has been retained for remediation purposes.	

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2216138431
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A

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

Initial Response

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

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

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

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

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

Printed Name: Garrett Green
Title: SSHE Coordinator
Signature: 
Date: 06/09/2022
email: garrett.green@exxonmobil.com
Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon
Date: 06/10/2022

Location:	PLU 25 BD West CTB	
Spill Date:	6/4/2022	

Area 1		
Approximate Area =	28.07	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	5.00	bbls

Area 2		
Approximate Area =	4003.70	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches

Average Porosity Factor =	0.03	

VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	1.78	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**6.78**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**5.00**	**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 115840

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 115840
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	6/10/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2216138431
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2216138431
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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: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: ____11/01/2022_____

email: _garrett.green@exxonmobil.com_____ Telephone: ____575-200-0729_____

OCD Only

Received by: Jocelyn Harimon Date: 11/01/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2216138431
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: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: __11/01/2022_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: __Jocelyn Harimon_____ Date: ___11/01/2022___

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: _____ Date: _____

Printed Name: _____ Title: _____

November 1, 2022

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Request
PLU 25 Brushy Draw West CTB
Incident Number NAPP2216138431
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, delineation, and soil sampling activities at the PLU 25 Brushy Draw West Central Tank Battery (CTB, Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water into a lined containment and onto the well pad. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing Site assessment and delineation activities that have occurred and requesting no further action for Incident Number NAPP2216138431.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit E, Section 25, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.10429° N, 103.83900° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM). On June 4, 2022, corrosion caused a fitting on the water transfer pump to fail, resulting in the release of approximately 6.78 barrels (bbls) of produced water into the lined containment and onto the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 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 June 9, 2022. The release was assigned Incident Number NAPP2216138431.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on 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 Febuary 24, 2021, a soil boring

(C-4498) was drilled approximatley 0.3 miles southwest of the Site utilizing a track-mounted hollow-stem auger rig. Soil boring C-4498 was drilled to a depth of 109 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activites. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 109 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. All wells used to determing depth to groundwater are depicted on Figure 1. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 700 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

A 48-hour advance notice of liner inspection was provided via email to the NMOCD. A liner integrity inspection was conducted following fluid recovery. Upon inspection, the liner was determined to be competent. Photographic documentation is included in Appendix B.

On July 29, 2022, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Eight soil samples (SS01 through SS08) were collected within and around the release extent at a depth of approximately 0.5 feet bgs to assess the lateral extent of the release. The soil samples were field screened for volatile aromatic hydrocarbons (VOCs) and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. 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 procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of conern (COCs): 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 SS08 indicated concentrations of all COCs were compliant with the Site Closure Criteria. In addition, soil samples SS01 through SS04, collected outside the release extent were compliant with the most stringent Table I Closure Criteria and successfully define the lateral extent of the release. Based on laboratory analytical results for the preliminary soil samples, delineation activiites were warranted to further confirm the absence of impacted soil.

DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

On August 29, 2022, Ensolum personnel returned to the Site to oversee delineation activities. Potholes PH01 through PH05 were advanced via backhoe to a depth of 2 feet bgs within the release extent to assess the vertical extent of the release. Delineation soil samples were collected from each pothole at depths of 1-foot and 2 feet bgs. Soil from the delineation potholes was field screened for VOCs and chloride, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations are depicted on Figure 3.

Laboratory analytical results for all delineation soil samples indicated concentrations of all COCs were compliant with the Site Closure Criteria. Laboratory analytical results are summarized in Table I and laboratory analytical reports are included in Appendix D.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to address the June 4, 2022, release of produced water. Laboratory analytical results for the preliminary and delineation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria. Additionally, the release was laterally delineated to below the most stringent Table I Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation was required.

Depth to groundwater is greater than 100 feet bgs based on a recent soil boring and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number NAPP2216138431.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Tacoma Morrissey
Senior Geologist

Ashley L. Ager, M.S., P.G.
Principal

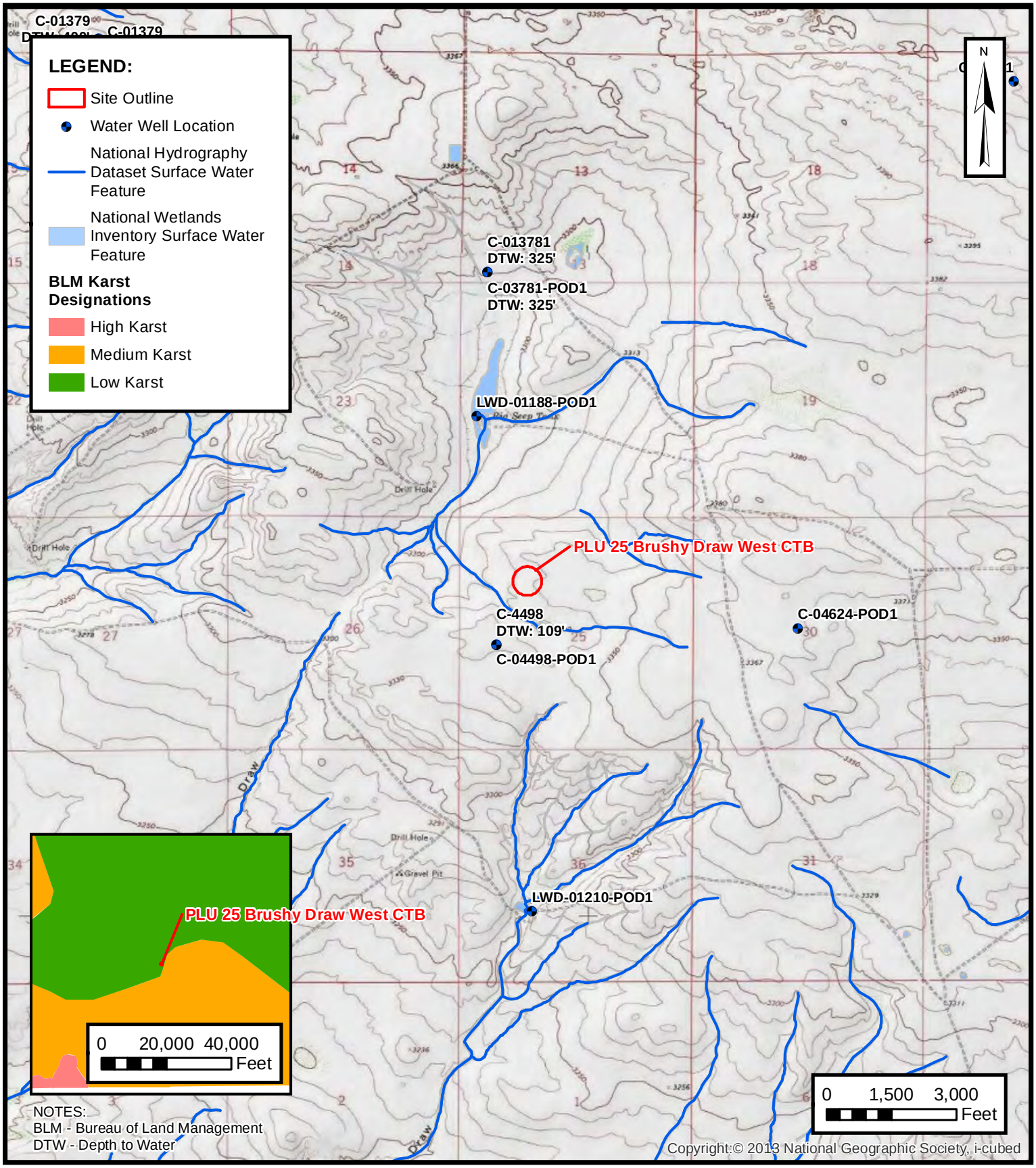
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation 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

ENSOLUM

FIGURES

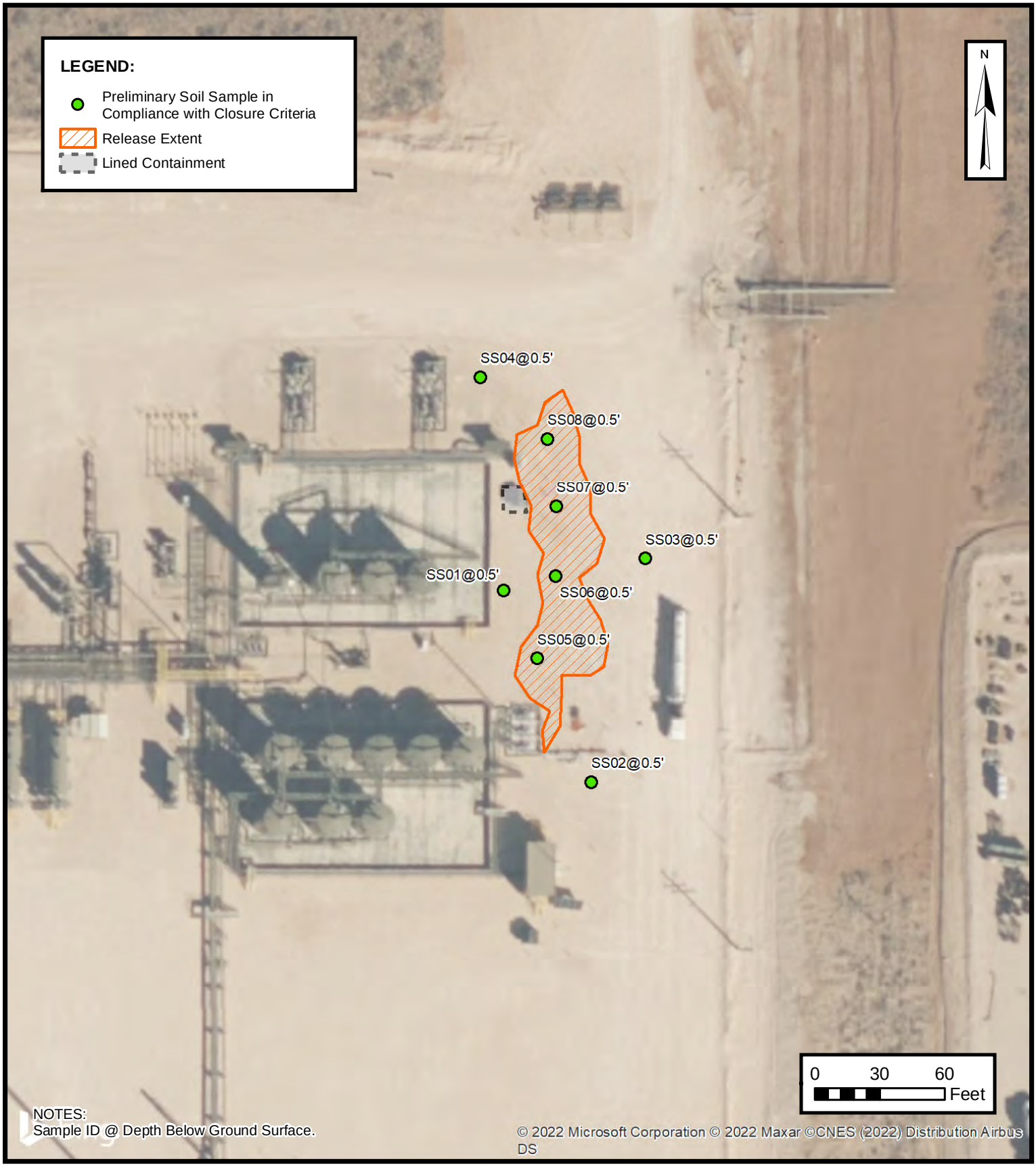


ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
PLU 25 BRUSHY DRAW WEST CTB
NAPP2216138431
Unit E, Sec 25, T25S, R30E
Eddy County, New Mexico

FIGURE
1



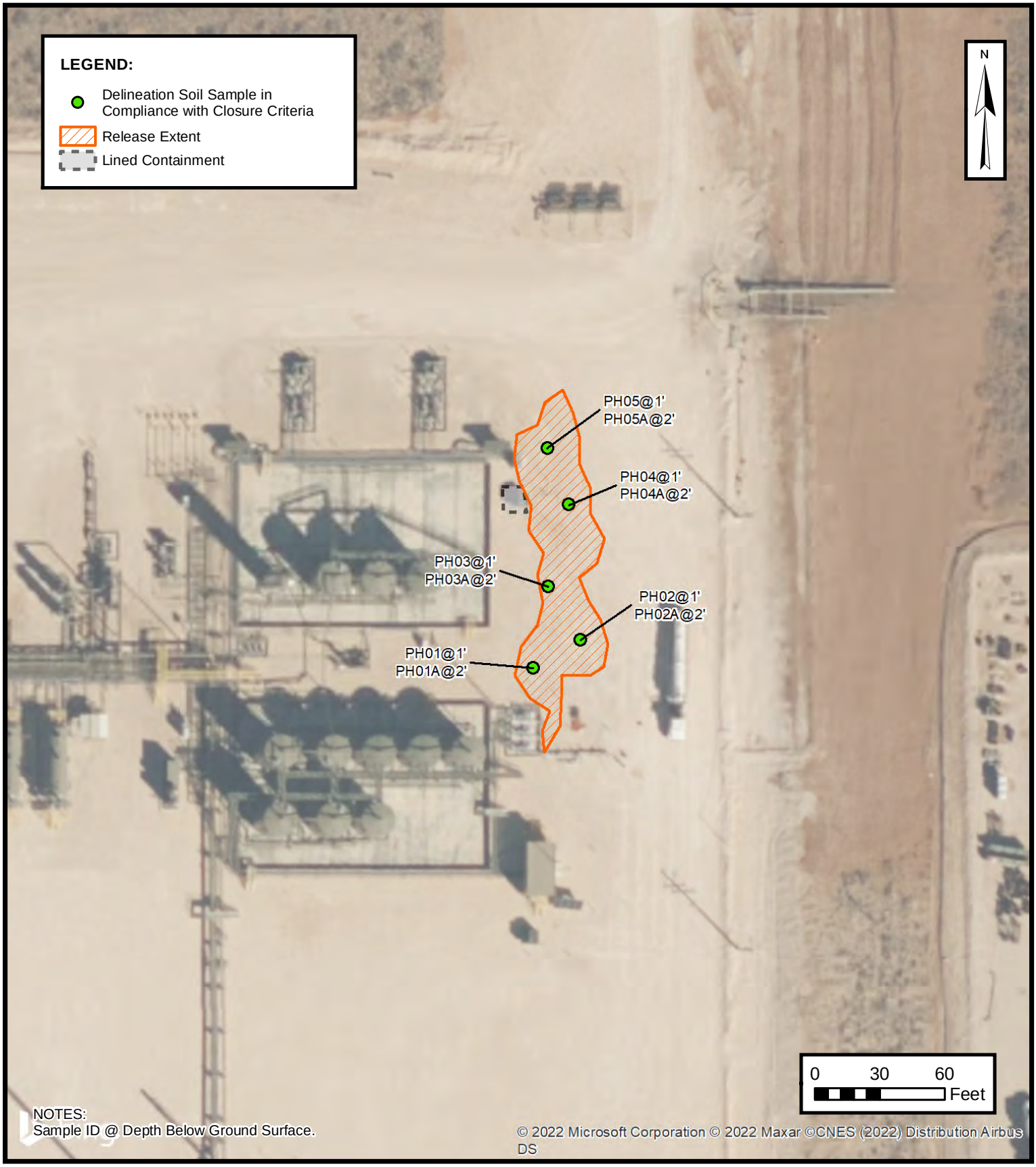
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

PRELIMINARY SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
PLU 25 BRUSHY DRAW WEST CTB
NAPP2216138431
Unit E, Sec 25, T25S, R30E
Eddy County, New Mexico

FIGURE

2



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC.
PLU 25 BRUSHY DRAW 25 WEST CTB
NAPP2216138431
Unit E, Sec 25, T25S, R30E
Eddy County, New Mexico

FIGURE
3

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 25 Brushy Draw West CTB
XTO Energy, Inc.
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Preliminary Soil Samples										
SS01	07/29/2022	0.25	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	152
SS02	07/29/2022	0.25	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	121
SS03	07/29/2022	0.25	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	34.7
SS04	07/29/2022	0.25	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	81.0
SS05	07/29/2022	0.25	<0.00201	<0.00402	<49.9	601	151	601	752	10,600
SS06	07/29/2022	0.25	<0.00200	<0.00399	<49.9	114	<49.9	114	114	1,910
SS07	07/29/2022	0.25	<0.00199	<0.00398	<50.0	966	164	966	1,130	17,600
SS08	07/29/2022	0.25	<0.00199	<0.00398	<49.8	57.3	<49.8	57.3	57.3	13,000
Delineation Soil Samples										
PH01	08/29/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	3,500
PH01A	08/29/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	3,320
PH02	08/29/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	2,290
PH02A	08/29/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	2,070
PH03	08/29/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,260
PH03A	08/29/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	995
PH04	08/29/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,090
PH04A	08/29/2022	2	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	484
PH05	08/29/2022	1	<0.00201	<0.00402	<49.9	80.4	<49.9	80.4	80.4	1,380
PH05A	08/29/2022	2	<0.00200	<0.00401	<49.9	90.3	<49.9	90.3	90.3	1,810

Notes:

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

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

ENSOLUM

APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4498

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

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

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	6'	1.96"	N
	LONGITUDE	-103°	50'	26.19"	W

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

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

NW SW NE Sec. 25 T25S R30E

2. DRILLING & CASING INFORMATION

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

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
02/24/2021	02/24/2021	temporary well material	109	n/a

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

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

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	109	±6.5	Boring- HSA	--	--	--	--
					OSE DII MAR 11 2021 PM4:26		

3. ANNULAR MATERIAL

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

FOR OSE INTERNAL USE

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

FILE NO. C-4498	POD NO. 1	TRN NO. 682528	
LOCATION 132 T25S R30E Sec 25		WELL TAG ID NO. NA	PAGE 1 OF 2

4. HYDROGEOLOGIC ~~LOG~~ OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	34	34	Caliche, tan, no odor, no stain, gravel, dry	Y ✓ N	
34	40	6	sand/ cacliche, 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	

~~METHOD~~ USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

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

OSE DII MAR 11 2021 PM4:28

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

Shane Eldridge

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 03/11/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO. C-4498	POD NO. 1	TRN NO. 682528	
LOCATION 132 T25S R30E Sec25		WELL TAG ID NO. NA	PAGE 2 OF 2

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 682528
File Nbr: C 04498
Well File Nbr: C 04498 POD1

Mar. 11, 2021

TACOMA MORRISEY
WSP USA
3300 NORTH A STREET
BLDG 1 #222
MIDLAND, TX 79705

Greetings:

The above numbered permit was issued in your name on 12/01/2020.

The Well Record was received in this office on 03/11/2021, stating that it had been completed on 02/24/2021, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 12/01/2021.

If you have any questions, please feel free to contact us.

Sincerely,

Andrew Dennis
(575)622-6521

drywell

USGS 320643103465002 25S.31E.21.413314A

Eddy County, New Mexico
Latitude 32°06'46.0", Longitude 103°46'56.3" NAD83
Land-surface elevation 3,374.00 feet above NGVD29
The depth of the well is 400 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Wat leve app stat
1959-02-17		D	62610		3055.98	NGVD29	P	Z			
1959-02-17		D	62611		3057.66	NAVD88	P	Z			
1959-02-17		D	72019	318.02			P	Z			
2013-01-17	19:40 UTC	m	62610			NGVD29	D	S			
2013-01-17	19:40 UTC	m	62611			NAVD88	D	S			
2013-01-17	19:40 UTC	m	72019				D	S			

Explanation

ENSOLUM

APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc.
PLU 25 Brushy Draw West CTB
Incident Number NAPP2216138431

Photograph 1 Date: July 29, 2022
Description: Liner Inspection
View: Southwest

Photograph 1 Date: July 29, 2022
Description: Liner Inspection
View: East

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM	Sample Name: PH01	Date: 8/29/2022
	Site Name: PLU 25 BD West CTB	
	Incident Number: NAPP2216138431	
	Job Number: 03E1558085	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Pothole
Coordinates: 32.104526, -103.838413	Hole Diameter: N/A	Total Depth: 2'

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.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	3,175	0.2	N	PH01	1	1	CCHE	Caliche, silty, no odor, no stain
D	5,196	0.1	N	PH01A	2	2	CCHE	SAA

TD @ 2 feet bgs

ENSOLUM	Sample Name: PH02	Date: 8/29/2022
	Site Name: PLU 25 BD West CTB	
	Incident Number: NAPP2216138431	
	Job Number: 03E1558085	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Pothole
Coordinates: 32.104526, -103.838413	Hole Diameter: N/A	Total Depth: 2'

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.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	2,184	0.0	N	PH02	1	1	CCHE	Caliche, silty, no odor, no stain
D	1,971	0.0	N	PH02A	2	2	CCHE	SAA

TD @ 2 feet bgs

ENSOLUM	Sample Name: PH03	Date: 8/29/2022
	Site Name: PLU 25 BD West CTB	
	Incident Number: NAPP2216138431	
	Job Number: 03E1558085	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Pothole
Coordinates: 32.104526, -103.838413	Hole Diameter: N/A	Total Depth: 2'

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.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,176	0.0	N	PH03	1	1	CCHE	Caliche, silty, no odor, no stain
D	1,971	0.0	N	PH03A	2	2	CCHE	SAA

TD @ 2 feet bgs

ENSOLUM	Sample Name: PH04	Date: 8/29/2022
	Site Name: PLU 25 BD West CTB	
	Incident Number: NAPP2216138431	
	Job Number: 03E1558085	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Pothole
Coordinates: 32.104526, -103.838413	Hole Diameter: N/A	Total Depth: 2'

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.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	2,184	0.0	N	PH04	1	1	CCHE	Caliche, silty, no odor, no stain
D	520	0.0	N	PH04A	2	2	CCHE	SAA

TD @ 2 feet bgs

ENSOLUM	Sample Name: PH05	Date: 8/29/2022
	Site Name: PLU 25 BD West CTB	
	Incident Number: NAPP2216138431	
	Job Number: 03E1558085	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Pothole
Coordinates: 32.104526, -103.838413	Hole Diameter: N/A	Total Depth: 2'

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.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,176	0.0	N	PH05	1	1	CCHE	Caliche, silty, no odor, no stain
D	1,584	0.0	N	PH05A	2	2	CCHE	SAA

TD @ 2 feet bgs

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2694-1
Laboratory Sample Delivery Group: 03E1558085
Client Project/Site: Bushy Draw 25 CTB
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/11/2022 8:09:47 AM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Laboratory Job ID: 890-2694-1
SDG: 03E1558085

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Definitions/Glossary

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Job ID: 890-2694-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2694-1

REVISION

The report being provided is a revision of the original report sent on 8/10/2022. The report (revision 1) is being revised due to Per client email, requesting sample IDs to be updated.

Report revision history

Receipt
The samples were received on 8/1/2022 8:17 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 5.2°C

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31442 and analytical batch 880-31457 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31444 and analytical batch 880-31665 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Client Sample ID: SS05

Date Collected: 07/29/22 09:20
Date Received: 08/01/22 08:17
Sample Depth: .2'

Lab Sample ID: 890-2694-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/05/22 11:28	08/05/22 20:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/05/22 11:28	08/05/22 20:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/05/22 11:28	08/05/22 20:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/05/22 11:28	08/05/22 20:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/05/22 11:28	08/05/22 20:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/05/22 11:28	08/05/22 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*08/05/22 11:28*	*08/05/22 20:28*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*08/05/22 11:28*	*08/05/22 20:28*	*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			08/08/22 15:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**752**		49.9		mg/Kg			08/05/22 13:04	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		08/03/22 16:40	08/04/22 20:59	1
Diesel Range Organics (Over C10-C28)	**601**	**F1**	49.9		mg/Kg		08/03/22 16:40	08/04/22 20:59	1
Oil Range Organics (Over C28-C36)	**151**		49.9		mg/Kg		08/03/22 16:40	08/04/22 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*63*	*S1-*	*70 - 130*	*08/03/22 16:40*	*08/04/22 20:59*	*1*
o-Terphenyl	*74*		*70 - 130*	*08/03/22 16:40*	*08/04/22 20:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10600**		101		mg/Kg			08/09/22 15:18	20

Client Sample ID: SS06

Date Collected: 07/29/22 09:30
Date Received: 08/01/22 08:17
Sample Depth: .2'

Lab Sample ID: 890-2694-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 20:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 20:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 20:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/05/22 11:28	08/05/22 20:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 20:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/05/22 11:28	08/05/22 20:49	1

Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Client Sample ID: SS06

Date Collected: 07/29/22 09:30
Date Received: 08/01/22 08:17
Sample Depth: .2'

Lab Sample ID: 890-2694-2
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*08/05/22 11:28*	*08/05/22 20:49*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*08/05/22 11:28*	*08/05/22 20:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/08/22 15:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**114**		49.9	mg/Kg			08/05/22 13:04	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		08/03/22 16:40	08/04/22 22:04	1
Diesel Range Organics (Over C10-C28)	**114**		49.9	mg/Kg		08/03/22 16:40	08/04/22 22:04	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/03/22 16:40	08/04/22 22:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*08/03/22 16:40*	*08/04/22 22:04*	*1*
o-Terphenyl	*82*		*70 - 130*	*08/03/22 16:40*	*08/04/22 22:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1910**		25.2	mg/Kg			08/09/22 15:25	5

Client Sample ID: SS07

Date Collected: 07/29/22 09:40
Date Received: 08/01/22 08:17
Sample Depth: .2'

Lab Sample ID: 890-2694-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/05/22 11:28	08/05/22 21:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/05/22 11:28	08/05/22 21:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/05/22 11:28	08/05/22 21:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/05/22 11:28	08/05/22 21:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/05/22 11:28	08/05/22 21:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/05/22 11:28	08/05/22 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*08/05/22 11:28*	*08/05/22 21:10*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*08/05/22 11:28*	*08/05/22 21:10*	*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			08/08/22 15:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1130**		50.0	mg/Kg			08/05/22 13:04	1

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Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Client Sample ID: SS07

Date Collected: 07/29/22 09:40
Date Received: 08/01/22 08:17
Sample Depth: .2'

Lab Sample ID: 890-2694-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/03/22 16:40	08/04/22 22:25	1
Diesel Range Organics (Over C10-C28)	**966**		50.0		mg/Kg		08/03/22 16:40	08/04/22 22:25	1
Oil Range Organics (Over C28-C36)	**164**		50.0		mg/Kg		08/03/22 16:40	08/04/22 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*08/03/22 16:40*	*08/04/22 22:25*	*1*
o-Terphenyl	*91*		*70 - 130*	*08/03/22 16:40*	*08/04/22 22:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17600**		100		mg/Kg			08/09/22 15:49	20

Client Sample ID: SS08

Date Collected: 07/29/22 09:50
Date Received: 08/01/22 08:17
Sample Depth: .2'

Lab Sample ID: 890-2694-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/05/22 11:28	08/05/22 21:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/05/22 11:28	08/05/22 21:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/05/22 11:28	08/05/22 21:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/05/22 11:28	08/05/22 21:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/05/22 11:28	08/05/22 21:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/05/22 11:28	08/05/22 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*08/05/22 11:28*	*08/05/22 21:31*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*08/05/22 11:28*	*08/05/22 21:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/08/22 15:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**57.3**		49.8		mg/Kg			08/05/22 13:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/03/22 16:40	08/04/22 22:47	1
Diesel Range Organics (Over C10-C28)	**57.3**		49.8		mg/Kg		08/03/22 16:40	08/04/22 22:47	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/03/22 16:40	08/04/22 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*08/03/22 16:40*	*08/04/22 22:47*	*1*
o-Terphenyl	*87*		*70 - 130*	*08/03/22 16:40*	*08/04/22 22:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Client Sample ID: SS08

Date Collected: 07/29/22 09:50
Date Received: 08/01/22 08:17
Sample Depth: .2'

Lab Sample ID: 890-2694-4

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100		mg/Kg			08/09/22 15:57	20

Surrogate Summary

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

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)
880-17510-A-1-D MS	Matrix Spike	94	107
880-17510-A-1-E MSD	Matrix Spike Duplicate	99	99
890-2694-1	SS05	109	109
890-2694-2	SS06	114	92
890-2694-3	SS07	103	99
890-2694-4	SS08	105	99
LCS 880-31574/1-A	Lab Control Sample	90	105
LCSD 880-31574/2-A	Lab Control Sample Dup	108	103
MB 880-31574/5-A	Method Blank	94	95

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2694-1	SS05	63 S1-	74
890-2694-1 MS	SS05	68 S1-	69 S1-
890-2694-1 MSD	SS05	80	82
890-2694-2	SS06	70	82
890-2694-3	SS07	80	91
890-2694-4	SS08	70	87
LCS 880-31442/2-A	Lab Control Sample	87	101
LCSD 880-31442/3-A	Lab Control Sample Dup	83	95
MB 880-31442/1-A	Method Blank	89	113

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31574/5-A
Matrix: Solid
Analysis Batch: 31617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31574

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 18:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 18:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 18:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/05/22 11:28	08/05/22 18:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:28	08/05/22 18:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/05/22 11:28	08/05/22 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*08/05/22 11:28*	*08/05/22 18:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/05/22 11:28*	*08/05/22 18:43*	*1*

Lab Sample ID: LCS 880-31574/1-A
Matrix: Solid
Analysis Batch: 31617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31574

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1178		mg/Kg		118	70 - 130		
Toluene			0.100	0.1060		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.08769		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1821		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.08916		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-31574/2-A
Matrix: Solid
Analysis Batch: 31617

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31574

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08890		mg/Kg		89	70 - 130	28	35
Toluene			0.100	0.1103		mg/Kg		110	70 - 130	4	35
Ethylbenzene			0.100	0.1009		mg/Kg		101	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.2213		mg/Kg		111	70 - 130	19	35
o-Xylene			0.100	0.1081		mg/Kg		108	70 - 130	19	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-17510-A-1-D MS
Matrix: Solid
Analysis Batch: 31617

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31574

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.1056		mg/Kg		105	70 - 130		
Toluene	<0.00200	U	0.100	0.09624		mg/Kg		96	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

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

Lab Sample ID: 880-17510-A-1-D MS
Matrix: Solid
Analysis Batch: 31617

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31574

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.08030		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.00528		0.201	0.1651		mg/Kg		80	70 - 130
o-Xylene	0.00401		0.100	0.08112		mg/Kg		77	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-17510-A-1-E MSD
Matrix: Solid
Analysis Batch: 31617

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 31574

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0998	0.08498		mg/Kg		85	70 - 130	22	35
Toluene	<0.00200	U	0.0998	0.09819		mg/Kg		98	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.0998	0.08653		mg/Kg		85	70 - 130	7	35
m-Xylene & p-Xylene	0.00528		0.200	0.1858		mg/Kg		90	70 - 130	12	35
o-Xylene	0.00401		0.0998	0.09094		mg/Kg		87	70 - 130	11	35

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

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

Lab Sample ID: MB 880-31442/1-A
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31442

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		08/03/22 16:40	08/04/22 19:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/03/22 16:40	08/04/22 19:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/03/22 16:40	08/04/22 19:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*08/03/22 16:40*	*08/04/22 19:53*	*1*
o-Terphenyl	*113*		*70 - 130*	*08/03/22 16:40*	*08/04/22 19:53*	*1*

Lab Sample ID: LCS 880-31442/2-A
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31442

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1004		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)			1000	972.1		mg/Kg		97	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

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

Lab Sample ID: LCS 880-31442/2-A
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31442

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: LCSD 880-31442/3-A
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31442

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	882.1		mg/Kg		88	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	925.8		mg/Kg		93	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: 890-2694-1 MS
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: SS05
Prep Type: Total/NA
Prep Batch: 31442

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	827.1		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)	601	F1	999	1185	F1	mg/Kg		58	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	68	S1-	70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-2694-1 MSD
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: SS05
Prep Type: Total/NA
Prep Batch: 31442

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	934.1		mg/Kg		91	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	601	F1	999	1431		mg/Kg		83	70 - 130	19	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	82		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31444/1-A
Matrix: Solid
Analysis Batch: 31665

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			08/09/22 14:15	1

Lab Sample ID: LCS 880-31444/2-A
Matrix: Solid
Analysis Batch: 31665

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	233.6		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-31444/3-A
Matrix: Solid
Analysis Batch: 31665

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	234.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2690-A-1-C MS
Matrix: Solid
Analysis Batch: 31665

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	620	F1	249	828.0	F1	mg/Kg		83	90 - 110		

Lab Sample ID: 890-2690-A-1-D MSD
Matrix: Solid
Analysis Batch: 31665

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	620	F1	249	833.1	F1	mg/Kg		85	90 - 110	1	20

Lab Sample ID: 890-2695-A-4-C MS
Matrix: Solid
Analysis Batch: 31665

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	81.0		251	328.8		mg/Kg		99	90 - 110		

Lab Sample ID: 890-2695-A-4-D MSD
Matrix: Solid
Analysis Batch: 31665

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	81.0		251	327.2		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

GC VOA

Prep Batch: 31574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Total/NA	Solid	5035	
890-2694-2	SS06	Total/NA	Solid	5035	
890-2694-3	SS07	Total/NA	Solid	5035	
890-2694-4	SS08	Total/NA	Solid	5035	
MB 880-31574/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31574/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31574/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17510-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-17510-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 31617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Total/NA	Solid	8021B	31574
890-2694-2	SS06	Total/NA	Solid	8021B	31574
890-2694-3	SS07	Total/NA	Solid	8021B	31574
890-2694-4	SS08	Total/NA	Solid	8021B	31574
MB 880-31574/5-A	Method Blank	Total/NA	Solid	8021B	31574
LCS 880-31574/1-A	Lab Control Sample	Total/NA	Solid	8021B	31574
LCSD 880-31574/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31574
880-17510-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	31574
880-17510-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31574

Analysis Batch: 31799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Total/NA	Solid	Total BTEX	
890-2694-2	SS06	Total/NA	Solid	Total BTEX	
890-2694-3	SS07	Total/NA	Solid	Total BTEX	
890-2694-4	SS08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 31442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Total/NA	Solid	8015NM Prep	
890-2694-2	SS06	Total/NA	Solid	8015NM Prep	
890-2694-3	SS07	Total/NA	Solid	8015NM Prep	
890-2694-4	SS08	Total/NA	Solid	8015NM Prep	
MB 880-31442/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31442/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31442/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2694-1 MS	SS05	Total/NA	Solid	8015NM Prep	
890-2694-1 MSD	SS05	Total/NA	Solid	8015NM Prep	

Analysis Batch: 31457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Total/NA	Solid	8015B NM	31442
890-2694-2	SS06	Total/NA	Solid	8015B NM	31442
890-2694-3	SS07	Total/NA	Solid	8015B NM	31442
890-2694-4	SS08	Total/NA	Solid	8015B NM	31442
MB 880-31442/1-A	Method Blank	Total/NA	Solid	8015B NM	31442
LCS 880-31442/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31442

QC Association Summary

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

GC Semi VOA (Continued)

Analysis Batch: 31457 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-31442/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31442
890-2694-1 MS	SS05	Total/NA	Solid	8015B NM	31442
890-2694-1 MSD	SS05	Total/NA	Solid	8015B NM	31442

Analysis Batch: 31588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Total/NA	Solid	8015 NM	
890-2694-2	SS06	Total/NA	Solid	8015 NM	
890-2694-3	SS07	Total/NA	Solid	8015 NM	
890-2694-4	SS08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 31444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Soluble	Solid	DI Leach	
890-2694-2	SS06	Soluble	Solid	DI Leach	
890-2694-3	SS07	Soluble	Solid	DI Leach	
890-2694-4	SS08	Soluble	Solid	DI Leach	
MB 880-31444/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31444/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31444/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2690-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2690-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2695-A-4-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2695-A-4-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 31665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2694-1	SS05	Soluble	Solid	300.0	31444
890-2694-2	SS06	Soluble	Solid	300.0	31444
890-2694-3	SS07	Soluble	Solid	300.0	31444
890-2694-4	SS08	Soluble	Solid	300.0	31444
MB 880-31444/1-A	Method Blank	Soluble	Solid	300.0	31444
LCS 880-31444/2-A	Lab Control Sample	Soluble	Solid	300.0	31444
LCSD 880-31444/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31444
890-2690-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	31444
890-2690-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31444
890-2695-A-4-C MS	Matrix Spike	Soluble	Solid	300.0	31444
890-2695-A-4-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31444

Lab Chronicle

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Client Sample ID: SS05
Date Collected: 07/29/22 09:20
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2694-1
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			4.97 g	5 mL	31574	08/05/22 11:28	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31617	08/05/22 20:28	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31799	08/08/22 15:42	SM	EETSC M
Total/NA	Analysis	8015 NM		1			31588	08/05/22 13:04	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31442	08/03/22 16:40	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31457	08/04/22 20:59	AJ	EETSC M
Soluble	Leach	DI Leach			4.96 g	50 mL	31444	08/03/22 17:00	SMC	EETSC M
Soluble	Analysis	300.0		20			31665	08/09/22 15:18	CH	EETSC M

Client Sample ID: SS06
Date Collected: 07/29/22 09:30
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2694-2
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			5.01 g	5 mL	31574	08/05/22 11:28	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31617	08/05/22 20:49	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31799	08/08/22 15:42	SM	EETSC M
Total/NA	Analysis	8015 NM		1			31588	08/05/22 13:04	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	31442	08/03/22 16:40	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31457	08/04/22 22:04	AJ	EETSC M
Soluble	Leach	DI Leach			4.96 g	50 mL	31444	08/03/22 17:00	SMC	EETSC M
Soluble	Analysis	300.0		5			31665	08/09/22 15:25	CH	EETSC M

Client Sample ID: SS07
Date Collected: 07/29/22 09:40
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2694-3
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			5.03 g	5 mL	31574	08/05/22 11:28	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31617	08/05/22 21:10	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31799	08/08/22 15:42	SM	EETSC M
Total/NA	Analysis	8015 NM		1			31588	08/05/22 13:04	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31442	08/03/22 16:40	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31457	08/04/22 22:25	AJ	EETSC M
Soluble	Leach	DI Leach			4.98 g	50 mL	31444	08/03/22 17:00	SMC	EETSC M
Soluble	Analysis	300.0		20			31665	08/09/22 15:49	CH	EETSC M

Client Sample ID: SS08
Date Collected: 07/29/22 09:50
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2694-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	31574	08/05/22 11:28	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31617	08/05/22 21:31	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31799	08/08/22 15:42	SM	EETSC M

Lab Chronicle

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Client Sample ID: SS08
Date Collected: 07/29/22 09:50
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2694-4
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			31588	08/05/22 13:04	AJ	EETSC MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	31442	08/03/22 16:40	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31457	08/04/22 22:47	AJ	EETSC M
Soluble	Leach	DI Leach			5 g	50 mL	31444	08/03/22 17:00	SMC	EETSC M
Soluble	Analysis	300.0		20			31665	08/09/22 15:57	CH	EETSC M

Laboratory References:
EETSC MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

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	T104704400-22-24	06-30-23

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: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

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

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

Sample Summary

Client: Ensolum
Project/Site: Bushy Draw 25 CTB

Job ID: 890-2694-1
SDG: 03E1558085

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2694-1	SS05	Solid	07/29/22 09:20	08/01/22 08:17	.2'
890-2694-2	SS06	Solid	07/29/22 09:30	08/01/22 08:17	.2'
890-2694-3	SS07	Solid	07/29/22 09:40	08/01/22 08:17	.2'
890-2694-4	SS08	Solid	07/29/22 09:50	08/01/22 08:17	.2'

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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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	Carlsbad NM 88220
Phone:	817-683-2503	Email:	

Work Order Comments

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

Project Name:	Bushy Draw 25CTB	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558085	Due Date:	
Project Location:	Eddy Co	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	CJS		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR#M-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.2

ANALYSIS REQUEST

Pres. Code / Parameters: CHL, BTEX, TPH

890-2694 Chain of Custody

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont
R1	S	7-29	0920	.2	G	1
R2	S	7-29	0930	.2	G	1
R3	S	7-29	0940	.2	G	1
R4	S	7-29	0950	.2	G	1

Sample Comments

Inc ID
NAPP2216138431

CC
219185100

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_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 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, its affiliates and subcontractors. 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	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8-1-22 817	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2694-1
SDG Number: 03E1558085

Login Number: 2694
List Number: 1
Creator: Stutzman, Amanda

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: 890-2694-1
SDG Number: 03E1558085

Login Number: 2694
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/02/22 10:44 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2695-1
Laboratory Sample Delivery Group: 03E1558085
Client Project/Site: Bushy Draw 25

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/10/2022 7:58:06 AM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Bushy Draw 25

Laboratory Job ID: 890-2695-1
SDG: 03E1558085

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Definitions/Glossary

Client: Ensolum Job ID: 890-2695-1
Project/Site: Bushy Draw 25 SDG: 03E1558085

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.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Job ID: 890-2695-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2695-1

Receipt
The samples were received on 8/1/2022 8:17 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 5.2°C

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31438 and analytical batch 880-31455 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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31438 and analytical batch 880-31455 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-31438/2-A) and (890-2702-A-1-B MS). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31444 and analytical batch 880-31665 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Client Sample ID: SS01

Lab Sample ID: 890-2695-1
Matrix: Solid
Date Collected: 07/29/22 10:10
Date Received: 08/01/22 08:17
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		08/05/22 11:52	08/07/22 16:48	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/05/22 11:52	08/07/22 16:48	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/05/22 11:52	08/07/22 16:48	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/05/22 11:52	08/07/22 16:48	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/05/22 11:52	08/07/22 16:48	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/05/22 11:52	08/07/22 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*08/05/22 11:52*	*08/07/22 16:48*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*08/05/22 11:52*	*08/07/22 16:48*	*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			08/09/22 16:25	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			08/05/22 08:59	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		08/03/22 15:56	08/04/22 16:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/03/22 15:56	08/04/22 16:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/03/22 15:56	08/04/22 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*58*	*S1-*	*70 - 130*	*08/03/22 15:56*	*08/04/22 16:38*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*08/03/22 15:56*	*08/04/22 16:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**152**		4.95		mg/Kg			08/09/22 16:05	1

Client Sample ID: SS02

Lab Sample ID: 890-2695-2
Matrix: Solid
Date Collected: 07/29/22 10:20
Date Received: 08/01/22 08:17
Sample Depth: .2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 17:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 17:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 17:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		08/05/22 11:52	08/07/22 17:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 17:09	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		08/05/22 11:52	08/07/22 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*08/05/22 11:52*	*08/07/22 17:09*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Client Sample ID: SS02

Lab Sample ID: 890-2695-2
Matrix: Solid
Date Collected: 07/29/22 10:20
Date Received: 08/01/22 08:17
Sample Depth: .2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*08/05/22 11:52*	*08/07/22 17:09*	*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			08/09/22 16:25	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			08/05/22 08:59	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		08/03/22 15:56	08/04/22 16:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/03/22 15:56	08/04/22 16:59	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/03/22 15:56	08/04/22 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*63*	*S1-*	*70 - 130*	*08/03/22 15:56*	*08/04/22 16:59*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*08/03/22 15:56*	*08/04/22 16:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**121**		5.04	mg/Kg			08/09/22 16:12	1

Client Sample ID: SS03

Lab Sample ID: 890-2695-3
Matrix: Solid
Date Collected: 07/29/22 10:30
Date Received: 08/01/22 08:17
Sample Depth: .2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:52	08/07/22 17:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:52	08/07/22 17:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:52	08/07/22 17:30	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/05/22 11:52	08/07/22 17:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:52	08/07/22 17:30	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/05/22 11:52	08/07/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*08/05/22 11:52*	*08/07/22 17:30*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*08/05/22 11:52*	*08/07/22 17:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 16:25	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			08/05/22 08:59	1

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Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Client Sample ID: SS03

Lab Sample ID: 890-2695-3
Matrix: Solid
Date Collected: 07/29/22 10:30
Date Received: 08/01/22 08:17
Sample Depth: .2

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		08/03/22 15:09	08/05/22 03:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/03/22 15:09	08/05/22 03:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/03/22 15:09	08/05/22 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*08/03/22 15:09*	*08/05/22 03:52*	*1*
o-Terphenyl	*127*		*70 - 130*	*08/03/22 15:09*	*08/05/22 03:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.7**		4.98		mg/Kg			08/09/22 16:20	1

Client Sample ID: SS04

Lab Sample ID: 890-2695-4
Matrix: Solid
Date Collected: 07/29/22 10:40
Date Received: 08/01/22 08:17
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		08/05/22 11:52	08/07/22 17:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/05/22 11:52	08/07/22 17:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/05/22 11:52	08/07/22 17:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/05/22 11:52	08/07/22 17:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/05/22 11:52	08/07/22 17:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/05/22 11:52	08/07/22 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*08/05/22 11:52*	*08/07/22 17:51*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*08/05/22 11:52*	*08/07/22 17:51*	*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			08/09/22 16:25	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			08/05/22 08:59	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		08/03/22 15:09	08/05/22 04:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/03/22 15:09	08/05/22 04:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/03/22 15:09	08/05/22 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*08/03/22 15:09*	*08/05/22 04:14*	*1*
o-Terphenyl	*106*		*70 - 130*	*08/03/22 15:09*	*08/05/22 04:14*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Client Sample ID: SS04
Date Collected: 07/29/22 10:40
Date Received: 08/01/22 08:17
Sample Depth: .2

Lab Sample ID: 890-2695-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.0		5.01		mg/Kg			08/09/22 16:28	1

Surrogate Summary

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2692-A-1-F MS	Matrix Spike	98	104
890-2692-A-1-G MSD	Matrix Spike Duplicate	96	102
890-2695-1	SS01	113	102
890-2695-2	SS02	104	114
890-2695-3	SS03	109	117
890-2695-4	SS04	114	110
LCS 880-31576/1-A	Lab Control Sample	96	106
LCSD 880-31576/2-A	Lab Control Sample Dup	92	103
MB 880-31576/5-A	Method Blank	98	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-17544-A-1-D MS	Matrix Spike	69 S1-	73
880-17544-A-1-E MSD	Matrix Spike Duplicate	79	81
890-2695-1	SS01	58 S1-	66 S1-
890-2695-2	SS02	63 S1-	69 S1-
890-2695-3	SS03	110	127
890-2695-4	SS04	93	106
890-2702-A-1-B MS	Matrix Spike	67 S1-	76
890-2702-A-1-C MSD	Matrix Spike Duplicate	79	88
LCS 880-31438/2-A	Lab Control Sample	124	131 S1+
LCS 880-31439/2-A	Lab Control Sample	86	97
LCSD 880-31438/3-A	Lab Control Sample Dup	121	129
LCSD 880-31439/3-A	Lab Control Sample Dup	88	101
MB 880-31438/1-A	Method Blank	88	104
MB 880-31439/1-A	Method Blank	96	118

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31576/5-A
Matrix: Solid
Analysis Batch: 31656

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31576

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 14:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 14:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 14:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/05/22 11:52	08/07/22 14:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/05/22 11:52	08/07/22 14:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/05/22 11:52	08/07/22 14:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*08/05/22 11:52*	*08/07/22 14:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/05/22 11:52*	*08/07/22 14:43*	*1*

Lab Sample ID: LCS 880-31576/1-A
Matrix: Solid
Analysis Batch: 31656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31576

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09840		mg/Kg		98	70 - 130		
Toluene			0.100	0.1101		mg/Kg		110	70 - 130		
Ethylbenzene			0.100	0.09388		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.2024		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.09923		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-31576/2-A
Matrix: Solid
Analysis Batch: 31656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31576

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1124		mg/Kg		112	70 - 130	13	35
Toluene			0.100	0.1077		mg/Kg		108	70 - 130	2	35
Ethylbenzene			0.100	0.08729		mg/Kg		87	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1826		mg/Kg		91	70 - 130	10	35
o-Xylene			0.100	0.08974		mg/Kg		90	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2692-A-1-F MS
Matrix: Solid
Analysis Batch: 31656

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31576

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.101	0.1015		mg/Kg		101	70 - 130		
Toluene	<0.00201	U	0.101	0.09221		mg/Kg		92	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

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

Lab Sample ID: 890-2692-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 31656 — **Prep Batch: 31576**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.07243		mg/Kg		72	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1505		mg/Kg		75	70 - 130
o-Xylene	<0.00201	U	0.101	0.07369		mg/Kg		73	70 - 130

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

Lab Sample ID: 890-2692-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 31656 — **Prep Batch: 31576**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.1015		mg/Kg		102	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.09175		mg/Kg		92	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.07057		mg/Kg		71	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1460		mg/Kg		73	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.07205		mg/Kg		72	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-31438/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 31455 — **Prep Batch: 31438**

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		08/03/22 15:09	08/04/22 19:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/03/22 15:09	08/04/22 19:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/03/22 15:09	08/04/22 19:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*08/03/22 15:09*	*08/04/22 19:53*	*1*
o-Terphenyl	*104*		*70 - 130*	*08/03/22 15:09*	*08/04/22 19:53*	*1*

Lab Sample ID: LCS 880-31438/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 31455 — **Prep Batch: 31438**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	905.8		mg/Kg		91	70 - 130
Diesel Range Organics (Over C10-C28)			1000	923.2		mg/Kg		92	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

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

Lab Sample ID: LCS 880-31438/2-A
Matrix: Solid
Analysis Batch: 31455

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31438

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	131	S1+	70 - 130

Lab Sample ID: LCSD 880-31438/3-A
Matrix: Solid
Analysis Batch: 31455

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31438

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1071		mg/Kg		107	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	915.2		mg/Kg		92	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	129		70 - 130

Lab Sample ID: 890-2702-A-1-B MS
Matrix: Solid
Analysis Batch: 31455

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31438

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	999	757.0		mg/Kg		76	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	642.2	F1	mg/Kg		60	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	67	S1-	70 - 130
o-Terphenyl	76		70 - 130

Lab Sample ID: 890-2702-A-1-C MSD
Matrix: Solid
Analysis Batch: 31455

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 31438

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	999	1090	F2	mg/Kg		109	70 - 130	36	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	755.7		mg/Kg		71	70 - 130	16	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	88		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

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

Lab Sample ID: MB 880-31439/1-A
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31439

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		08/03/22 15:56	08/04/22 10:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/03/22 15:56	08/04/22 10:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/03/22 15:56	08/04/22 10:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*08/03/22 15:56*	*08/04/22 10:03*	*1*
o-Terphenyl	*118*		*70 - 130*	*08/03/22 15:56*	*08/04/22 10:03*	*1*

Lab Sample ID: LCS 880-31439/2-A
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31439

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	974.8		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	955.3		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: LCSD 880-31439/3-A
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31439

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1034		mg/Kg		103	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	985.7		mg/Kg		99	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Lab Sample ID: 880-17544-A-1-D MS
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31439

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	936.9		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	766.8		mg/Kg		77	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

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

Lab Sample ID: 880-17544-A-1-D MS
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31439

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 880-17544-A-1-E MSD
Matrix: Solid
Analysis Batch: 31457

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 31439

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	908.2		mg/Kg		88	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	866.8		mg/Kg		87	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	81		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31444/1-A
Matrix: Solid
Analysis Batch: 31665

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			08/09/22 14:15	1

Lab Sample ID: LCS 880-31444/2-A
Matrix: Solid
Analysis Batch: 31665

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	233.6		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-31444/3-A
Matrix: Solid
Analysis Batch: 31665

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	234.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2690-A-1-C MS
Matrix: Solid
Analysis Batch: 31665

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	620	F1	249	828.0	F1	mg/Kg		83	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2690-A-1-D MSD
Matrix: Solid
Analysis Batch: 31665

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	620	F1	249	833.1	F1	mg/Kg		85	90 - 110	1	20

Lab Sample ID: 890-2695-4 MS
Matrix: Solid
Analysis Batch: 31665

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	81.0		251	328.8		mg/Kg		99	90 - 110

Lab Sample ID: 890-2695-4 MSD
Matrix: Solid
Analysis Batch: 31665

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	81.0		251	327.2		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

GC VOA

Prep Batch: 31576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Total/NA	Solid	5035	
890-2695-2	SS02	Total/NA	Solid	5035	
890-2695-3	SS03	Total/NA	Solid	5035	
890-2695-4	SS04	Total/NA	Solid	5035	
MB 880-31576/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31576/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31576/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2692-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-2692-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 31656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Total/NA	Solid	8021B	31576
890-2695-2	SS02	Total/NA	Solid	8021B	31576
890-2695-3	SS03	Total/NA	Solid	8021B	31576
890-2695-4	SS04	Total/NA	Solid	8021B	31576
MB 880-31576/5-A	Method Blank	Total/NA	Solid	8021B	31576
LCS 880-31576/1-A	Lab Control Sample	Total/NA	Solid	8021B	31576
LCSD 880-31576/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31576
890-2692-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	31576
890-2692-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31576

Analysis Batch: 31865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Total/NA	Solid	Total BTEX	
890-2695-2	SS02	Total/NA	Solid	Total BTEX	
890-2695-3	SS03	Total/NA	Solid	Total BTEX	
890-2695-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 31438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-3	SS03	Total/NA	Solid	8015NM Prep	
890-2695-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-31438/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31438/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2702-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2702-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 31439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Total/NA	Solid	8015NM Prep	
890-2695-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-31439/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31439/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31439/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-17544-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-17544-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

GC Semi VOA

Analysis Batch: 31455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-3	SS03	Total/NA	Solid	8015B NM	31438
890-2695-4	SS04	Total/NA	Solid	8015B NM	31438
MB 880-31438/1-A	Method Blank	Total/NA	Solid	8015B NM	31438
LCS 880-31438/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31438
LCSD 880-31438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31438
890-2702-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	31438
890-2702-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	31438

Analysis Batch: 31457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Total/NA	Solid	8015B NM	31439
890-2695-2	SS02	Total/NA	Solid	8015B NM	31439
MB 880-31439/1-A	Method Blank	Total/NA	Solid	8015B NM	31439
LCS 880-31439/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31439
LCSD 880-31439/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31439
880-17544-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	31439
880-17544-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	31439

Analysis Batch: 31553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Total/NA	Solid	8015 NM	
890-2695-2	SS02	Total/NA	Solid	8015 NM	
890-2695-3	SS03	Total/NA	Solid	8015 NM	
890-2695-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 31444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Soluble	Solid	DI Leach	
890-2695-2	SS02	Soluble	Solid	DI Leach	
890-2695-3	SS03	Soluble	Solid	DI Leach	
890-2695-4	SS04	Soluble	Solid	DI Leach	
MB 880-31444/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31444/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31444/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2690-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2690-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2695-4 MS	SS04	Soluble	Solid	DI Leach	
890-2695-4 MSD	SS04	Soluble	Solid	DI Leach	

Analysis Batch: 31665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2695-1	SS01	Soluble	Solid	300.0	31444
890-2695-2	SS02	Soluble	Solid	300.0	31444
890-2695-3	SS03	Soluble	Solid	300.0	31444
890-2695-4	SS04	Soluble	Solid	300.0	31444
MB 880-31444/1-A	Method Blank	Soluble	Solid	300.0	31444
LCS 880-31444/2-A	Lab Control Sample	Soluble	Solid	300.0	31444
LCSD 880-31444/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31444
890-2690-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	31444

QC Association Summary

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

HPLC/IC (Continued)

Analysis Batch: 31665 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2690-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31444
890-2695-4 MS	SS04	Soluble	Solid	300.0	31444
890-2695-4 MSD	SS04	Soluble	Solid	300.0	31444

Lab Chronicle

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Client Sample ID: SS01
Date Collected: 07/29/22 10:10
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2695-1
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			4.97 g	5 mL	31576	08/05/22 11:52	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31656	08/07/22 16:48	MR	EETSC MID
Total/NA	Analysis	Total BTEX		1			31865	08/09/22 16:25	SM	EETSC MID
Total/NA	Analysis	8015 NM		1			31553	08/05/22 08:59	AJ	EETSC MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31439	08/03/22 15:56	DM	EETSC MID
Total/NA	Analysis	8015B NM		1			31457	08/04/22 16:38	AJ	EETSC MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31444	08/03/22 17:00	SMC	EETSC MID
Soluble	Analysis	300.0		1			31665	08/09/22 16:05	CH	EETSC MID

Client Sample ID: SS02
Date Collected: 07/29/22 10:20
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2695-2
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			4.99 g	5 mL	31576	08/05/22 11:52	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31656	08/07/22 17:09	MR	EETSC MID
Total/NA	Analysis	Total BTEX		1			31865	08/09/22 16:25	SM	EETSC MID
Total/NA	Analysis	8015 NM		1			31553	08/05/22 08:59	AJ	EETSC MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31439	08/03/22 15:56	DM	EETSC MID
Total/NA	Analysis	8015B NM		1			31457	08/04/22 16:59	AJ	EETSC MID
Soluble	Leach	DI Leach			4.96 g	50 mL	31444	08/03/22 17:00	SMC	EETSC MID
Soluble	Analysis	300.0		1			31665	08/09/22 16:12	CH	EETSC MID

Client Sample ID: SS03
Date Collected: 07/29/22 10:30
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2695-3
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			5.01 g	5 mL	31576	08/05/22 11:52	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31656	08/07/22 17:30	MR	EETSC MID
Total/NA	Analysis	Total BTEX		1			31865	08/09/22 16:25	SM	EETSC MID
Total/NA	Analysis	8015 NM		1			31553	08/05/22 08:59	AJ	EETSC MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31438	08/03/22 15:09	DM	EETSC MID
Total/NA	Analysis	8015B NM		1			31455	08/05/22 03:52	AJ	EETSC MID
Soluble	Leach	DI Leach			5.02 g	50 mL	31444	08/03/22 17:00	SMC	EETSC MID
Soluble	Analysis	300.0		1			31665	08/09/22 16:20	CH	EETSC MID

Client Sample ID: SS04
Date Collected: 07/29/22 10:40
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2695-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	31576	08/05/22 11:52	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31656	08/07/22 17:51	MR	EETSC MID
Total/NA	Analysis	Total BTEX		1			31865	08/09/22 16:25	SM	EETSC MID

Lab Chronicle

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Client Sample ID: SS04

Date Collected: 07/29/22 10:40
Date Received: 08/01/22 08:17

Lab Sample ID: 890-2695-4

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			31553	08/05/22 08:59	AJ	EETSC MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31438	08/03/22 15:09	DM	EETSC MID
Total/NA	Analysis	8015B NM		1			31455	08/05/22 04:14	AJ	EETSC MID
Soluble	Leach	DI Leach			4.99 g	50 mL	31444	08/03/22 17:00	SMC	EETSC MID
Soluble	Analysis	300.0		1			31665	08/09/22 16:28	CH	EETSC MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

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	T104704400-22-24	06-30-23

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: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

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

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

Sample Summary

Client: Ensolum
Project/Site: Bushy Draw 25

Job ID: 890-2695-1
SDG: 03E1558085

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2695-1	SS01	Solid	07/29/22 10:10	08/01/22 08:17	.2
890-2695-2	SS02	Solid	07/29/22 10:20	08/01/22 08:17	.2
890-2695-3	SS03	Solid	07/29/22 10:30	08/01/22 08:17	.2
890-2695-4	SS04	Solid	07/29/22 10:40	08/01/22 08:17	.2

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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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks	Address:	3104 E Greene St
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	Carlsbad NM 88220
Phone:	817 683-2503	Email:	

Work Order Comments

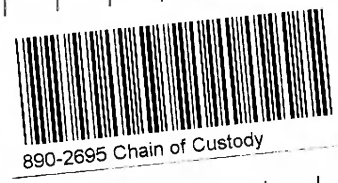
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Rusty Draw 25	Turn Around	Pres. Code
Project Number:	03E1558085	☐ Routine ☐ Rush	
Project Location:	Eddy County	Due Date:	
Sampler's Name:	CB	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNL007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.2

ANALYSIS REQUEST

Parameters: CHL / BTEX / TPH



Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Sample Comments
SS01	S	7-29	1010	.2	G	1	Inc ID
SS02	S	7-29	1020	.2	G	1	NAPP2216138431
SS03	S	7-29	1030	.2	G	1	
SS04	S	7-29	1040	.2	G	1	CC
							219185001

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_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8-1-22 817	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2695-1
SDG Number: 03E1558085

Login Number: 2695
List Number: 1
Creator: Stutzman, Amanda

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: 890-2695-1
SDG Number: 03E1558085

Login Number: 2695
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/02/22 10:44 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2858-1
Laboratory Sample Delivery Group: 03E1558085
Client Project/Site: Brushy Draw 25 West CTB

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
9/9/2022 10:18:18 AM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Laboratory Job ID: 890-2858-1
SDG: 03E1558085

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Eurofins Carlsbad
9/9/2022

Definitions/Glossary

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD 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
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Job ID: 890-2858-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2858-1

Receipt
The samples were received on 8/29/2022 2:49 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 29.0°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-33944 and analytical batch 880-33982 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: Surrogate recovery for the following samples were outside control limits: (LCS 880-33502/2-A), (LCSD 880-33502/3-A) and (MB 880-33502/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-33502 and analytical batch 880-33584 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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-33618 and 880-33618 and analytical batch 880-33669 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH01

Date Collected: 08/29/22 09:20
Date Received: 08/29/22 14:49
Sample Depth: 1

Lab Sample ID: 890-2858-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1 F2	0.00200		mg/Kg		09/07/22 16:02	09/09/22 02:15	1
Toluene	<0.00200	U F1 F2	0.00200		mg/Kg		09/07/22 16:02	09/09/22 02:15	1
Ethylbenzene	<0.00200	U F1 F2	0.00200		mg/Kg		09/07/22 16:02	09/09/22 02:15	1
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.00399		mg/Kg		09/07/22 16:02	09/09/22 02:15	1
o-Xylene	<0.00200	U F1 F2	0.00200		mg/Kg		09/07/22 16:02	09/09/22 02:15	1
Xylenes, Total	<0.00399	U F1 F2	0.00399		mg/Kg		09/07/22 16:02	09/09/22 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*09/07/22 16:02*	*09/09/22 02:15*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*09/07/22 16:02*	*09/09/22 02:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/09/22 10:34	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			09/06/22 12:59	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 F1	49.9		mg/Kg		09/01/22 09:04	09/02/22 10:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		09/01/22 09:04	09/02/22 10:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/22 09:04	09/02/22 10:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*09/01/22 09:04*	*09/02/22 10:34*	*1*
o-Terphenyl	*94*		*70 - 130*	*09/01/22 09:04*	*09/02/22 10:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3500**		24.8		mg/Kg			09/07/22 00:51	5

Client Sample ID: PH01A

Date Collected: 08/29/22 09:25
Date Received: 08/29/22 14:49
Sample Depth: 2

Lab Sample ID: 890-2858-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 02:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 02:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 02:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/07/22 16:02	09/09/22 02:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 02:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/07/22 16:02	09/09/22 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*09/07/22 16:02*	*09/09/22 02:41*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH01A

Lab Sample ID: 890-2858-2
Matrix: Solid
Date Collected: 08/29/22 09:25
Date Received: 08/29/22 14:49
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*09/07/22 16:02*	*09/09/22 02:41*	*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			09/09/22 10:34	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			09/06/22 12:59	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		09/01/22 09:04	09/02/22 11:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/01/22 09:04	09/02/22 11:39	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/01/22 09:04	09/02/22 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*09/01/22 09:04*	*09/02/22 11:39*	*1*
o-Terphenyl	*95*		*70 - 130*	*09/01/22 09:04*	*09/02/22 11:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3320**		25.1	mg/Kg			09/07/22 00:58	5

Client Sample ID: PH02

Lab Sample ID: 890-2858-3
Matrix: Solid
Date Collected: 08/29/22 09:30
Date Received: 08/29/22 14:49
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/07/22 16:02	09/09/22 03:06	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/07/22 16:02	09/09/22 03:06	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/07/22 16:02	09/09/22 03:06	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/07/22 16:02	09/09/22 03:06	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/07/22 16:02	09/09/22 03:06	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/07/22 16:02	09/09/22 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*09/07/22 16:02*	*09/09/22 03:06*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*09/07/22 16:02*	*09/09/22 03:06*	*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			09/09/22 10:34	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			09/06/22 12:59	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH02

Lab Sample ID: 890-2858-3
Matrix: Solid
Date Collected: 08/29/22 09:30
Date Received: 08/29/22 14:49
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		09/01/22 09:04	09/02/22 12:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/01/22 09:04	09/02/22 12:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/22 09:04	09/02/22 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*09/01/22 09:04*	*09/02/22 12:01*	*1*
o-Terphenyl	*115*		*70 - 130*	*09/01/22 09:04*	*09/02/22 12:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2290**		25.0		mg/Kg			09/07/22 01:05	5

Client Sample ID: PH02A

Lab Sample ID: 890-2858-4
Matrix: Solid
Date Collected: 08/29/22 09:35
Date Received: 08/29/22 14:49
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 03:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 03:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 03:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/07/22 16:02	09/09/22 03:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 03:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/07/22 16:02	09/09/22 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*09/07/22 16:02*	*09/09/22 03:32*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*09/07/22 16:02*	*09/09/22 03:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/09/22 10:34	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			09/06/22 12:59	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		09/01/22 09:04	09/02/22 12:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/01/22 09:04	09/02/22 12:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/22 09:04	09/02/22 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*09/01/22 09:04*	*09/02/22 12:22*	*1*
o-Terphenyl	*97*		*70 - 130*	*09/01/22 09:04*	*09/02/22 12:22*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH02A

Lab Sample ID: 890-2858-4
Matrix: Solid
Date Collected: 08/29/22 09:35
Date Received: 08/29/22 14:49
Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2070	F1	25.3		mg/Kg			09/07/22 01:12	5

Client Sample ID: PH03

Lab Sample ID: 890-2858-5
Matrix: Solid
Date Collected: 08/29/22 09:40
Date Received: 08/29/22 14:49
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		09/07/22 16:02	09/09/22 03:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 03:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 03:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/07/22 16:02	09/09/22 03:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 03:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/07/22 16:02	09/09/22 03:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*09/07/22 16:02*	*09/09/22 03:58*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*09/07/22 16:02*	*09/09/22 03:58*	*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			09/09/22 10:34	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			09/06/22 12:59	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		09/01/22 09:04	09/02/22 12:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/01/22 09:04	09/02/22 12:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/22 09:04	09/02/22 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*09/01/22 09:04*	*09/02/22 12:44*	*1*
o-Terphenyl	*115*		*70 - 130*	*09/01/22 09:04*	*09/02/22 12:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1260		5.04		mg/Kg			09/07/22 01:34	1

Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH03A

Lab Sample ID: 890-2858-6
Matrix: Solid
Date Collected: 08/29/22 09:45
Date Received: 08/29/22 14:49
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 04:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 04:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 04:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/07/22 16:02	09/09/22 04:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 04:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/07/22 16:02	09/09/22 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*09/07/22 16:02*	*09/09/22 04:24*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*09/07/22 16:02*	*09/09/22 04:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/09/22 10:34	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			09/06/22 12:59	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		09/01/22 09:04	09/02/22 13:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/01/22 09:04	09/02/22 13:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/22 09:04	09/02/22 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*09/01/22 09:04*	*09/02/22 13:05*	*1*
o-Terphenyl	*98*		*70 - 130*	*09/01/22 09:04*	*09/02/22 13:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**995**		5.02		mg/Kg			09/07/22 01:41	1

Client Sample ID: PH04

Lab Sample ID: 890-2858-7
Matrix: Solid
Date Collected: 08/29/22 09:50
Date Received: 08/29/22 14:49
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		09/07/22 16:02	09/09/22 04:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 04:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 04:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/07/22 16:02	09/09/22 04:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/07/22 16:02	09/09/22 04:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/07/22 16:02	09/09/22 04:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*09/07/22 16:02*	*09/09/22 04:50*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH04

Date Collected: 08/29/22 09:50
Date Received: 08/29/22 14:49
Sample Depth: 1

Lab Sample ID: 890-2858-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*09/07/22 16:02*	*09/09/22 04:50*	*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			09/09/22 10:34	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			09/06/22 12:59	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		09/01/22 09:04	09/02/22 13:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/01/22 09:04	09/02/22 13:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/01/22 09:04	09/02/22 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*09/01/22 09:04*	*09/02/22 13:27*	*1*
o-Terphenyl	*105*		*70 - 130*	*09/01/22 09:04*	*09/02/22 13:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2090**		24.8	mg/Kg			09/07/22 02:02	5

Client Sample ID: PH04A

Date Collected: 08/29/22 09:55
Date Received: 08/29/22 14:49
Sample Depth: 2

Lab Sample ID: 890-2858-8

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/07/22 16:02	09/09/22 05:16	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/07/22 16:02	09/09/22 05:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/07/22 16:02	09/09/22 05:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/07/22 16:02	09/09/22 05:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/07/22 16:02	09/09/22 05:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/07/22 16:02	09/09/22 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*09/07/22 16:02*	*09/09/22 05:16*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*09/07/22 16:02*	*09/09/22 05:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/09/22 10:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			09/06/22 12:59	1

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Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH04A

Lab Sample ID: 890-2858-8
Matrix: Solid
Date Collected: 08/29/22 09:55
Date Received: 08/29/22 14:49
Sample Depth: 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/01/22 09:04	09/02/22 13:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/01/22 09:04	09/02/22 13:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/01/22 09:04	09/02/22 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*09/01/22 09:04*	*09/02/22 13:48*	*1*
o-Terphenyl	*92*		*70 - 130*	*09/01/22 09:04*	*09/02/22 13:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**484**		4.96		mg/Kg			09/07/22 02:09	1

Client Sample ID: PH05

Lab Sample ID: 890-2858-9
Matrix: Solid
Date Collected: 08/29/22 10:00
Date Received: 08/29/22 14:49
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/07/22 16:02	09/09/22 05:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/07/22 16:02	09/09/22 05:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/07/22 16:02	09/09/22 05:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/07/22 16:02	09/09/22 05:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/07/22 16:02	09/09/22 05:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/07/22 16:02	09/09/22 05:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*09/07/22 16:02*	*09/09/22 05:43*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*09/07/22 16:02*	*09/09/22 05:43*	*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			09/09/22 10:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**80.4**		49.9		mg/Kg			09/06/22 12:59	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		09/01/22 09:04	09/02/22 14:10	1
Diesel Range Organics (Over C10-C28)	**80.4**		49.9		mg/Kg		09/01/22 09:04	09/02/22 14:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/22 09:04	09/02/22 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*09/01/22 09:04*	*09/02/22 14:10*	*1*
o-Terphenyl	*92*		*70 - 130*	*09/01/22 09:04*	*09/02/22 14:10*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH05

Date Collected: 08/29/22 10:00
Date Received: 08/29/22 14:49
Sample Depth: 1

Lab Sample ID: 890-2858-9

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1380**		5.00		mg/Kg			09/07/22 02:16	1

Client Sample ID: PH05A

Date Collected: 08/29/22 10:05
Date Received: 08/29/22 14:49
Sample Depth: 2

Lab Sample ID: 890-2858-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 06:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 06:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 06:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/07/22 16:02	09/09/22 06:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 06:09	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/07/22 16:02	09/09/22 06:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*09/07/22 16:02*	*09/09/22 06:09*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*09/07/22 16:02*	*09/09/22 06:09*	*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			09/09/22 10:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**103**		49.9		mg/Kg			09/06/22 12:59	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		09/01/22 09:04	09/02/22 14:31	1
Diesel Range Organics (Over C10-C28)	**90.3**		49.9		mg/Kg		09/01/22 09:04	09/02/22 14:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/22 09:04	09/02/22 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*09/01/22 09:04*	*09/02/22 14:31*	*1*
o-Terphenyl	*115*		*70 - 130*	*09/01/22 09:04*	*09/02/22 14:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1810**		24.9		mg/Kg			09/07/22 02:24	5

Surrogate Summary

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

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)
890-2858-1	PH01	104	72
890-2858-1 MS	PH01	89	115
890-2858-1 MSD	PH01	127	83
890-2858-2	PH01A	95	98
890-2858-3	PH02	116	79
890-2858-4	PH02A	127	82
890-2858-5	PH03	131 S1+	84
890-2858-6	PH03A	98	99
890-2858-7	PH04	103	91
890-2858-8	PH04A	126	93
890-2858-9	PH05	115	90
890-2858-10	PH05A	118	85
LCS 880-33944/1-A	Lab Control Sample	91	78
LCSD 880-33944/2-A	Lab Control Sample Dup	111	76
MB 880-33944/5-A	Method Blank	80	74
MB 880-33982/8	Method Blank	70	81

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)
890-2858-1	PH01	94	94
890-2858-1 MS	PH01	99	85
890-2858-1 MSD	PH01	105	89
890-2858-2	PH01A	97	95
890-2858-3	PH02	118	115
890-2858-4	PH02A	99	97
890-2858-5	PH03	118	115
890-2858-6	PH03A	98	98
890-2858-7	PH04	106	105
890-2858-8	PH04A	92	92
890-2858-9	PH05	93	92
890-2858-10	PH05A	118	115
LCS 880-33502/2-A	Lab Control Sample	139 S1+	137 S1+
LCSD 880-33502/3-A	Lab Control Sample Dup	144 S1+	142 S1+
MB 880-33502/1-A	Method Blank	133 S1+	134 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-33944/5-A
Matrix: Solid
Analysis Batch: 33982

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33944

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 01:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 01:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 01:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/07/22 16:02	09/09/22 01:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/07/22 16:02	09/09/22 01:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/07/22 16:02	09/09/22 01:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*09/07/22 16:02*	*09/09/22 01:49*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*09/07/22 16:02*	*09/09/22 01:49*	*1*

Lab Sample ID: LCS 880-33944/1-A
Matrix: Solid
Analysis Batch: 33982

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33944

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08825		mg/Kg		88	70 - 130		
Toluene			0.100	0.1024		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1040		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.2047		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.09568		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*

Lab Sample ID: LCSD 880-33944/2-A
Matrix: Solid
Analysis Batch: 33982

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33944

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1046		mg/Kg		105	70 - 130	17	35
Toluene			0.100	0.1068		mg/Kg		107	70 - 130	4	35
Ethylbenzene			0.100	0.1050		mg/Kg		105	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2095		mg/Kg		105	70 - 130	2	35
o-Xylene			0.100	0.1027		mg/Kg		103	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: 890-2858-1 MS
Matrix: Solid
Analysis Batch: 33982

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 33944

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F1 F2	0.0998	0.03455	F1	mg/Kg		35	70 - 130		
Toluene	<0.00200	U F1 F2	0.0998	0.03528	F1	mg/Kg		35	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

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

Lab Sample ID: 890-2858-1 MS — **Client Sample ID: PH01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33982 — **Prep Batch: 33944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1 F2	0.0998	0.03343	F1	mg/Kg		33	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.200	0.07001	F1	mg/Kg		35	70 - 130
o-Xylene	<0.00200	U F1 F2	0.0998	0.03721	F1	mg/Kg		37	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: 890-2858-1 MSD — **Client Sample ID: PH01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33982 — **Prep Batch: 33944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.100	0.09876	F2	mg/Kg		99	70 - 130	96	35
Toluene	<0.00200	U F1 F2	0.100	0.1023	F2	mg/Kg		102	70 - 130	97	35
Ethylbenzene	<0.00200	U F1 F2	0.100	0.09731	F2	mg/Kg		97	70 - 130	98	35
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.200	0.1927	F2	mg/Kg		96	70 - 130	93	35
o-Xylene	<0.00200	U F1 F2	0.100	0.09421	F2	mg/Kg		94	70 - 130	87	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*

Lab Sample ID: MB 880-33982/8 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33982

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			09/08/22 11:40	1
Toluene	<0.00200	U	0.00200	mg/Kg			09/08/22 11:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			09/08/22 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			09/08/22 11:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			09/08/22 11:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			09/08/22 11:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*		*09/08/22 11:40*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*		*09/08/22 11:40*	*1*

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

Lab Sample ID: MB 880-33502/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33584 — **Prep Batch: 33502**

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		09/01/22 09:04	09/02/22 09:30	1

QC Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

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

Lab Sample ID: MB 880-33502/1-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33502

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		09/01/22 09:04	09/02/22 09:30	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/22 09:04	09/02/22 09:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*09/01/22 09:04*	*09/02/22 09:30*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*09/01/22 09:04*	*09/02/22 09:30*	*1*

Lab Sample ID: LCS 880-33502/2-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33502

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	801.9		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	877.6		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*139*	*S1+*	*70 - 130*
o-Terphenyl	*137*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-33502/3-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33502

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	868.7		mg/Kg		87	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	912.6		mg/Kg		91	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*144*	*S1+*	*70 - 130*
o-Terphenyl	*142*	*S1+*	*70 - 130*

Lab Sample ID: 890-2858-1 MS
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 33502

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	999	696.4	F1	mg/Kg		67	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	1009		mg/Kg		98	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

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

Lab Sample ID: 890-2858-1 MSD — **Client Sample ID: PH01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33584 — **Prep Batch: 33502**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	716.6	F1	mg/Kg		69	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	1063		mg/Kg		104	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-33618/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33669

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/06/22 23:11	1

Lab Sample ID: LCS 880-33618/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33669

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	236.7		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-33618/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33669

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	237.4		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-2858-4 MS — **Client Sample ID: PH02A**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33669

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2070	F1	1260	3893	F1	mg/Kg		145	90 - 110		

Lab Sample ID: 890-2858-4 MSD — **Client Sample ID: PH02A**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33669

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2070	F1	1260	3895	F1	mg/Kg		145	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

GC VOA

Prep Batch: 33944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Total/NA	Solid	5035	
890-2858-2	PH01A	Total/NA	Solid	5035	
890-2858-3	PH02	Total/NA	Solid	5035	
890-2858-4	PH02A	Total/NA	Solid	5035	
890-2858-5	PH03	Total/NA	Solid	5035	
890-2858-6	PH03A	Total/NA	Solid	5035	
890-2858-7	PH04	Total/NA	Solid	5035	
890-2858-8	PH04A	Total/NA	Solid	5035	
890-2858-9	PH05	Total/NA	Solid	5035	
890-2858-10	PH05A	Total/NA	Solid	5035	
MB 880-33944/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33944/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33944/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2858-1 MS	PH01	Total/NA	Solid	5035	
890-2858-1 MSD	PH01	Total/NA	Solid	5035	

Analysis Batch: 33982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Total/NA	Solid	8021B	33944
890-2858-2	PH01A	Total/NA	Solid	8021B	33944
890-2858-3	PH02	Total/NA	Solid	8021B	33944
890-2858-4	PH02A	Total/NA	Solid	8021B	33944
890-2858-5	PH03	Total/NA	Solid	8021B	33944
890-2858-6	PH03A	Total/NA	Solid	8021B	33944
890-2858-7	PH04	Total/NA	Solid	8021B	33944
890-2858-8	PH04A	Total/NA	Solid	8021B	33944
890-2858-9	PH05	Total/NA	Solid	8021B	33944
890-2858-10	PH05A	Total/NA	Solid	8021B	33944
MB 880-33944/5-A	Method Blank	Total/NA	Solid	8021B	33944
MB 880-33982/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-33944/1-A	Lab Control Sample	Total/NA	Solid	8021B	33944
LCSD 880-33944/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33944
890-2858-1 MS	PH01	Total/NA	Solid	8021B	33944
890-2858-1 MSD	PH01	Total/NA	Solid	8021B	33944

Analysis Batch: 34083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Total/NA	Solid	Total BTEX	
890-2858-2	PH01A	Total/NA	Solid	Total BTEX	
890-2858-3	PH02	Total/NA	Solid	Total BTEX	
890-2858-4	PH02A	Total/NA	Solid	Total BTEX	
890-2858-5	PH03	Total/NA	Solid	Total BTEX	
890-2858-6	PH03A	Total/NA	Solid	Total BTEX	
890-2858-7	PH04	Total/NA	Solid	Total BTEX	
890-2858-8	PH04A	Total/NA	Solid	Total BTEX	
890-2858-9	PH05	Total/NA	Solid	Total BTEX	
890-2858-10	PH05A	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

GC Semi VOA

Prep Batch: 33502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Total/NA	Solid	8015NM Prep	
890-2858-2	PH01A	Total/NA	Solid	8015NM Prep	
890-2858-3	PH02	Total/NA	Solid	8015NM Prep	
890-2858-4	PH02A	Total/NA	Solid	8015NM Prep	
890-2858-5	PH03	Total/NA	Solid	8015NM Prep	
890-2858-6	PH03A	Total/NA	Solid	8015NM Prep	
890-2858-7	PH04	Total/NA	Solid	8015NM Prep	
890-2858-8	PH04A	Total/NA	Solid	8015NM Prep	
890-2858-9	PH05	Total/NA	Solid	8015NM Prep	
890-2858-10	PH05A	Total/NA	Solid	8015NM Prep	
MB 880-33502/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-33502/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-33502/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2858-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-2858-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 33584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Total/NA	Solid	8015B NM	33502
890-2858-2	PH01A	Total/NA	Solid	8015B NM	33502
890-2858-3	PH02	Total/NA	Solid	8015B NM	33502
890-2858-4	PH02A	Total/NA	Solid	8015B NM	33502
890-2858-5	PH03	Total/NA	Solid	8015B NM	33502
890-2858-6	PH03A	Total/NA	Solid	8015B NM	33502
890-2858-7	PH04	Total/NA	Solid	8015B NM	33502
890-2858-8	PH04A	Total/NA	Solid	8015B NM	33502
890-2858-9	PH05	Total/NA	Solid	8015B NM	33502
890-2858-10	PH05A	Total/NA	Solid	8015B NM	33502
MB 880-33502/1-A	Method Blank	Total/NA	Solid	8015B NM	33502
LCS 880-33502/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	33502
LCSD 880-33502/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	33502
890-2858-1 MS	PH01	Total/NA	Solid	8015B NM	33502
890-2858-1 MSD	PH01	Total/NA	Solid	8015B NM	33502

Analysis Batch: 33842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Total/NA	Solid	8015 NM	
890-2858-2	PH01A	Total/NA	Solid	8015 NM	
890-2858-3	PH02	Total/NA	Solid	8015 NM	
890-2858-4	PH02A	Total/NA	Solid	8015 NM	
890-2858-5	PH03	Total/NA	Solid	8015 NM	
890-2858-6	PH03A	Total/NA	Solid	8015 NM	
890-2858-7	PH04	Total/NA	Solid	8015 NM	
890-2858-8	PH04A	Total/NA	Solid	8015 NM	
890-2858-9	PH05	Total/NA	Solid	8015 NM	
890-2858-10	PH05A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

HPLC/IC

Leach Batch: 33618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Soluble	Solid	DI Leach	
890-2858-2	PH01A	Soluble	Solid	DI Leach	
890-2858-3	PH02	Soluble	Solid	DI Leach	
890-2858-4	PH02A	Soluble	Solid	DI Leach	
890-2858-5	PH03	Soluble	Solid	DI Leach	
890-2858-6	PH03A	Soluble	Solid	DI Leach	
890-2858-7	PH04	Soluble	Solid	DI Leach	
890-2858-8	PH04A	Soluble	Solid	DI Leach	
890-2858-9	PH05	Soluble	Solid	DI Leach	
890-2858-10	PH05A	Soluble	Solid	DI Leach	
MB 880-33618/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-33618/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-33618/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2858-4 MS	PH02A	Soluble	Solid	DI Leach	
890-2858-4 MSD	PH02A	Soluble	Solid	DI Leach	

Analysis Batch: 33669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2858-1	PH01	Soluble	Solid	300.0	33618
890-2858-2	PH01A	Soluble	Solid	300.0	33618
890-2858-3	PH02	Soluble	Solid	300.0	33618
890-2858-4	PH02A	Soluble	Solid	300.0	33618
890-2858-5	PH03	Soluble	Solid	300.0	33618
890-2858-6	PH03A	Soluble	Solid	300.0	33618
890-2858-7	PH04	Soluble	Solid	300.0	33618
890-2858-8	PH04A	Soluble	Solid	300.0	33618
890-2858-9	PH05	Soluble	Solid	300.0	33618
890-2858-10	PH05A	Soluble	Solid	300.0	33618
MB 880-33618/1-A	Method Blank	Soluble	Solid	300.0	33618
LCS 880-33618/2-A	Lab Control Sample	Soluble	Solid	300.0	33618
LCSD 880-33618/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	33618
890-2858-4 MS	PH02A	Soluble	Solid	300.0	33618
890-2858-4 MSD	PH02A	Soluble	Solid	300.0	33618

Lab Chronicle

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH01

Date Collected: 08/29/22 09:20
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-1
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			5.01 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 02:15	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 10:34	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33669	09/07/22 00:51	CH	EET MID

Client Sample ID: PH01A

Date Collected: 08/29/22 09:25
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-2
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			5.03 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 02:41	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 11:39	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33669	09/07/22 00:58	CH	EET MID

Client Sample ID: PH02

Date Collected: 08/29/22 09:30
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-3
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			4.97 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 03:06	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 12:01	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33669	09/07/22 01:05	CH	EET MID

Client Sample ID: PH02A

Date Collected: 08/29/22 09:35
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 03:32	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH02A
Date Collected: 08/29/22 09:35
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-4
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			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 12:22	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33669	09/07/22 01:12	CH	EET MID

Client Sample ID: PH03
Date Collected: 08/29/22 09:40
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-5
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			5.03 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 03:58	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 12:44	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33669	09/07/22 01:34	CH	EET MID

Client Sample ID: PH03A
Date Collected: 08/29/22 09:45
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-6
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			5.01 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 04:24	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 13:05	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33669	09/07/22 01:41	CH	EET MID

Client Sample ID: PH04
Date Collected: 08/29/22 09:50
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-7
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			5.02 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 04:50	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 13:27	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Client Sample ID: PH04
Date Collected: 08/29/22 09:50
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33669	09/07/22 02:02	CH	EET MID

Client Sample ID: PH04A
Date Collected: 08/29/22 09:55
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-8
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			5.03 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 05:16	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 13:48	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33669	09/07/22 02:09	CH	EET MID

Client Sample ID: PH05
Date Collected: 08/29/22 10:00
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-9
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			4.97 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 05:43	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 14:10	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33669	09/07/22 02:16	CH	EET MID

Client Sample ID: PH05A
Date Collected: 08/29/22 10:05
Date Received: 08/29/22 14:49

Lab Sample ID: 890-2858-10
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			4.99 g	5 mL	33944	09/07/22 16:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33982	09/09/22 06:09	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34083	09/09/22 10:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33842	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33502	09/01/22 09:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/02/22 14:31	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	33618	09/02/22 10:37	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33669	09/07/22 02:24	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

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	T104704400-22-24	06-30-23

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: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

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

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

Sample Summary

Client: Ensolum
Project/Site: Brushy Draw 25 West CTB

Job ID: 890-2858-1
SDG: 03E1558085

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2858-1	PH01	Solid	08/29/22 09:20	08/29/22 14:49	1
890-2858-2	PH01A	Solid	08/29/22 09:25	08/29/22 14:49	2
890-2858-3	PH02	Solid	08/29/22 09:30	08/29/22 14:49	1
890-2858-4	PH02A	Solid	08/29/22 09:35	08/29/22 14:49	2
890-2858-5	PH03	Solid	08/29/22 09:40	08/29/22 14:49	1
890-2858-6	PH03A	Solid	08/29/22 09:45	08/29/22 14:49	2
890-2858-7	PH04	Solid	08/29/22 09:50	08/29/22 14:49	1
890-2858-8	PH04A	Solid	08/29/22 09:55	08/29/22 14:49	2
890-2858-9	PH05	Solid	08/29/22 10:00	08/29/22 14:49	1
890-2858-10	PH05A	Solid	08/29/22 10:05	08/29/22 14:49	2

eurofins | Environment Testing Xenco

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garret.Green@ExxonMobil.com

Work Order Comments

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

Project Name:	Brushy Draw 25 West CTB	Turn Around	
Project Number:	03E1558085	☑ Routine ☐ Rush	
Project Location:	32.10429, -103.83911	Due Date:	
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IWM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	29.2
Total Containers:		Corrected Temperature:	29.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
PH01	S	8/29/2022	9:20	1'				x	x	x
PH01A	S	8/29/2022	9:25	2'				x	x	x
PH02	S	8/29/2022	9:30	1'				x	x	x
PH02A	S	8/29/2022	9:35	2'				x	x	x
PH03	S	8/29/2022	9:40	1'				x	x	x
PH03A	S	8/29/2022	9:45	2'				x	x	x
PH04	S	8/29/2022	9:50	1'				x	x	x
PH04A	S	8/29/2022	9:55	2'				x	x	x
PH05	S	8/29/2022	10:00	1'				x	x	x
PH05A	S	8/29/2022	10:05	2'				x	x	x

890-2858 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Incident ID:
nAPP2216138431
Cost Center:
2191851001
AFE:

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_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			8.29.22 1449			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2858-1
SDG Number: 03E1558085

Login Number: 2858
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2858-1
SDG Number: 03E1558085

Login Number: 2858
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/31/22 11:18 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	

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Collins, Melanie
To: ocd.enviro@state.nm.us; mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD
Cc: DelawareSpills /SM; Kalei Jennings; Tacoma Morrissey; Ben Belill; Ashley Ager; Green, Garrett J; Pennington, Shelby G
Subject: XTO-Liner Inspection Notification- PLU 25 Brushy Draw West CTB / NAPP2216138431
Date: Friday, July 22, 2022 3:06:43 PM
Attachments: image001.png

[**EXTERNAL EMAIL**]

All,

This is advance notification of a liner inspection to occur Friday, July 29th, 2022, at 9 a.m. MST at the PLU 25 Brushy Draw West CTB/NAPP2216138431. GPS coordinates are listed below. Please do not hesitate to reach out with questions or concerns.

PLU 25 Brushy Draw West CTB / NAPP2216138431
GPS: 32.65852, -103.50705

Thank you,

Melanie Collins

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

From: Green, Garrett J
To: ocd.enviro@state.nm.us; mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD
Cc: Tacoma Morrissey
Subject: XTO - Sampling Notification (Week of 8/29/22 - 9/2/22)
Date: Friday, August 26, 2022 3:15:37 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of August 29, 2022.

Monday
- Brushy Draw West 25 / nAPP2216138431
- Big Sinks 2-24-30 / nAPP2219644709 & nAPP2220224382

Tuesday
- Brushy Draw West 25 / nAPP2216138431
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- ADU 816/ NAB1435334641

Wednesday
- Brushy Draw West 25 / nAPP2216138431
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- ADU 816/ NAB1435334641
- PLU Pierce Canyon 12 / nAPP2222044186

Thursday
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- JRU DI2/ nAPP2211654411 & nAPP2208349430

Friday
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- PLU S Frac Pond / nAPP2211150068

Thank you!

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

From:	Hamlet, Robert, EMNRD
To:	Collins, Melanie
Cc:	DelawareSpills /SM; Kalei Jennings; Green, Garrett J; Pennington, Shelby G; Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD
Subject:	(Extension Approval) PLU 25 Brushy Draw West CTB (Incident Number NAPP2216138431)
Date:	Thursday, September 1, 2022 2:43:05 PM
Attachments:	image002.jpg image003.png

[**EXTERNAL EMAIL**]

RE: Incident #**NAPP2216138431**

Melanie,

Your request for an extension to **November 1st, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, September 1, 2022 11:57 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Kalei Jennings <kjennings@ensolum.com>; Green, Garrett J <garrett.green@exxonmobil.com>; Pennington, Shelby G <shelby.g.pennington@exxonmobil.com>
Subject: [EXTERNAL] PLU 25 Brushy Draw West CTB (Incident Number NAPP2216138431)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

XTO is requesting an extension for the current deadline of September 2, 2022 for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the PLU 25 Brushy Draw West CTB (Incident Number NAPP2216138431). The release occurred on June 4, 2022, and initial site assessment activities have been completed. Delineation activities were completed last

week and are pending laboratory analytical results. In order to review the laboratory analytical results, discuss remedial options, and submit a remediation work plan or closure report, XTO requests an extension until November 1, 2022.

Thank you,

Melanie Collins

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

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 155366

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 155366
	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 #NAPP2216138431 PLU 25 BRUSHY DRAW WEST CTB, thank you. This closure is approved. Please be aware that any contaminants left on pad above reclamation standards will need to be addressed at the time the site/facility is plugged and abandoned.	1/11/2023