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	NAPP2209039217
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Adrian Baker	Contact Telephone 432-236-3808
Contact email adrian.baker@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.14650 Longitude -103.91240
(NAD 83 in decimal degrees to 5 decimal places)

Site Name ROW 4 Muy Wayno Pipeline	Site Type Riser
Date Release Discovered 03/19/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
H	07	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) 284.67	Volume Recovered (bbls) 260.00
	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 release of fluids on the pipeline from Muy Wayno pit to the PLU 18 Brushy Draw. Vacuum truck was dispatched and recovered all free fluids. A third-party contractor has been retained for remediation purposes.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2209039217
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? A release equal to or greater than 25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Garrett Green to Mike Bratcher; Victoria Venegas; Rob Hamlet; ocd.enviro@state.nm.us on Saturday, March 19, 2022 12:44 PM via email.

Initial Response

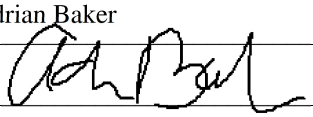
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

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

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

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

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

Printed Name: Adrian Baker
Title: SSHE Coordinator
Signature: 
Date: 3/31/2022
email: adrian.baker@exxonmobil.com
Telephone: 432-236-3808

OCD Only

Received by: Jocelyn Harimon
Date: 03/31/2022

Location:	ROW 4 Muy Wayno Riser	
Spill Date:	3/19/2022	

Area 1		
Approximate Area =	10000.00	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 =	264.45	bbls

Area 2		
Approximate Area =	1650.00	sq. ft.
Average Saturation (or depth) of spill =	4.00	inches

Average Porosity Factor =	0.15	

VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	14.69	bbls

Area 3		
Approximate Area =	621.00	sq. ft.
Average Saturation (or depth) of spill =	4.00	inches

Average Porosity Factor =	0.15	

VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	5.53	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**284.67**	**bbls**

TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**260.00**	**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

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 94783
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	3/31/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2209039217
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2209039217
District RP	
Facility ID	
Application ID	

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

Printed Name: ____Adrian Baker_____ Title: _____Environmental Coordinator_____

Signature:_____Adrian Baker_____ Date: __06/17/2022_____

email: ___adrian.baker@exxonmobil.com_____ Telephone: _____432-236-3808_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2209039217
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Adrian Baker_____ Title: __Environmental Coordinator_____

Signature: _____Adrian Baker_____ Date: ___06/17/2022_____

email: __adrian.baker@exxonmobil.com_____ Telephone: ___432-236-3808_____

OCD Only

Received by: _____ Date: _____

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

Signature: Jennifer Nobui Date: 08/25/2022

ENSOLUM

June 16, 2022

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

Re: Remediation Work Plan
ROW 4 Muy Wayno Pipeline
Incident Number NAPP2209039217
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared the following Remediation Work Plan (Work Plan) to document the site assessment activities completed to date and propose a work plan to address the impacted soil identified at the Right-of-Way (ROW) 4 along the Muy Wayno Pipeline (Site), resulting from a release of produced water. The following Work Plan proposes to advance a soil boring to investigate depth to water to confirm the Closure Criteria at the Site and excavate the impacted soil.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit H, Section 7, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.14650° N, 103.91240° W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On March 19, 2022, corrosion of a pipeline resulted in the release of approximately 284.67 barrels (bbls) of produced water into the surrounding pipeline ROW. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 260 bbls of released produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on March 19, 2022, and submitted a Release Notification Form C-141 (Form C-141) on March 31, 2022. The release was assigned Incident Number NAPP2209039217.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320857103553301, located

approximately 0.84 miles northwest of the Site. The groundwater well has a reported depth to groundwater of 264 feet bgs and a total depth of 385 feet bgs. Ground surface elevation at the groundwater well location is 3,169 feet above mean sea level (amsl), which is approximately 18 feet lower in elevation than the Site. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 573 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

A reclamation standard of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top four feet of the ROW area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top four feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On April 18, 2022, Ensolum personnel completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Five preliminary assessment soil samples (SS01 through SS05) were collected within the release extent from a depth of approximately 0.5 feet bgs. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-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 SS05 indicated that chloride concentrations exceeded the Closure Criteria and/or the reclamation standards. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, delineation activities were warranted.

On June 3, 2022, delineation activities were conducted at the Site to assess the vertical extent of impacted soil. Potholes PH01 through PH04 were advanced via track mounted backhoe within the release extent at the locations of preliminary soil samples SS01, SS03, SS04, and SS05. The potholes were advanced to a depth of 4 feet bgs. Discrete delineation soil samples were collected from each pothole at depths ranging from 1-foot to 4 feet bgs. Soil from the potholes was field screened for VOCs and chloride using a PID and chloride Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the potholes were documented on lithologic/soil sampling logs, which are included as Appendix C. The delineation soil samples were handled and analyzed as described above. The pothole locations are presented on Figure 3.

LABORATORY ANALYTICAL RESULTS

Benzene, BTEX, and TPH concentrations were below laboratory detection limits in all delineation soil samples collected at the Site. No hydrocarbon impacted soil was identified as a result of the release.

Laboratory analytical results for the delineation samples collected from pothole PH02 indicated that chloride concentrations were compliant with Site Closure Criteria and reclamation standards. Laboratory analytical results for the delineation samples collected at depths of 1-foot or 2 feet bgs from potholes PH01, PH03, and PH04, indicated that chloride concentrations exceeded the reclamation standard. Subsequent delineation samples from potholes PH01, PH03, and PH04, collected at 4 feet bgs, were compliant with Site Closure Criteria. Based on the laboratory analytical results, the vertical extent of the impacted soil was successfully defined. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix D.

PROPOSED REMEDIATION WORK PLAN

The results from the delineation soil sampling suggest soil containing elevated chloride concentrations is present across the 10,000 square foot release area and extends from the ground surface to an approximate depth of 4 feet bgs.

XTO proposes to complete the following remediation activities:

- In order to confirm depth to groundwater is greater than 100 feet bgs at the Site and confirm the applied Closure Criteria, XTO proposes to advance a soil boring until groundwater is encountered or to maximum depth of 110 feet bgs. The soil boring will be located within 0.5 miles of the Site and a field geologist will log and describe soils continuously. The soil boring will be left open for over 72 hours to allow for the potential slow infill of groundwater. Following the 72-hour waiting period, depth to groundwater will be measured or the geologist will confirm the boring is dry. The soil boring will be backfilled following New Mexico Office of the State Engineer (NMOSE) approved procedures. A well record or soil boring log will be included in the subsequent Closure Report.
- Following confirmation of depth to groundwater, XTO will proceed with excavation of the chloride-impacted soil to below reclamation standards in the top 4 feet and to below the established Site Closure Criteria at depths of 4 feet bgs or greater. Based on the delineation soil sample analytical results and area of the release extent, an estimated 1,400 cubic yards of impacted soil will be excavated and disposed of at a licensed disposal facility. The estimated excavation extent is shown on Figure 4.
- Due to the estimated 10,000 square foot size of the excavation, XTO requests a variance for frequency of excavation confirmation samples. XTO proposes the frequency of confirmation sampling for the excavation floor to be decreased from every 200 square feet (approximately 50 samples) to every 500 square feet (approximately 20 samples). Each 5-point composite floor

sample will represent a 500 square foot area. Sidewall samples will be collected at a frequency of every 200 square feet. The soil samples will be handled as described above and analyzed for chloride at Eurofins in Carlsbad, New Mexico. The soil samples will be analyzed for chloride only since no BTEX or TPH concentrations were detected in any of the samples collected at the Site. The source of the release was produced water and no hydrocarbon constituents were identified in source samples; therefore, chloride is the established contaminant of concern.

- Upon completion of excavation activities, the excavation will be backfilled and recontoured to match pre-existing conditions. The disturbed area will be re-seeded with an approved BLM seed mixture.

XTO will complete the excavation activities within 90 days of the date of approval of this Work Plan by the NMOCD. The depth to water soil boring will be completed as soon as possible following approval from the surface landowner, receipt of the NMOSE drilling permit, and scheduling with a driller.

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

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Scientist

Aimee Cole
Senior Managing Scientist

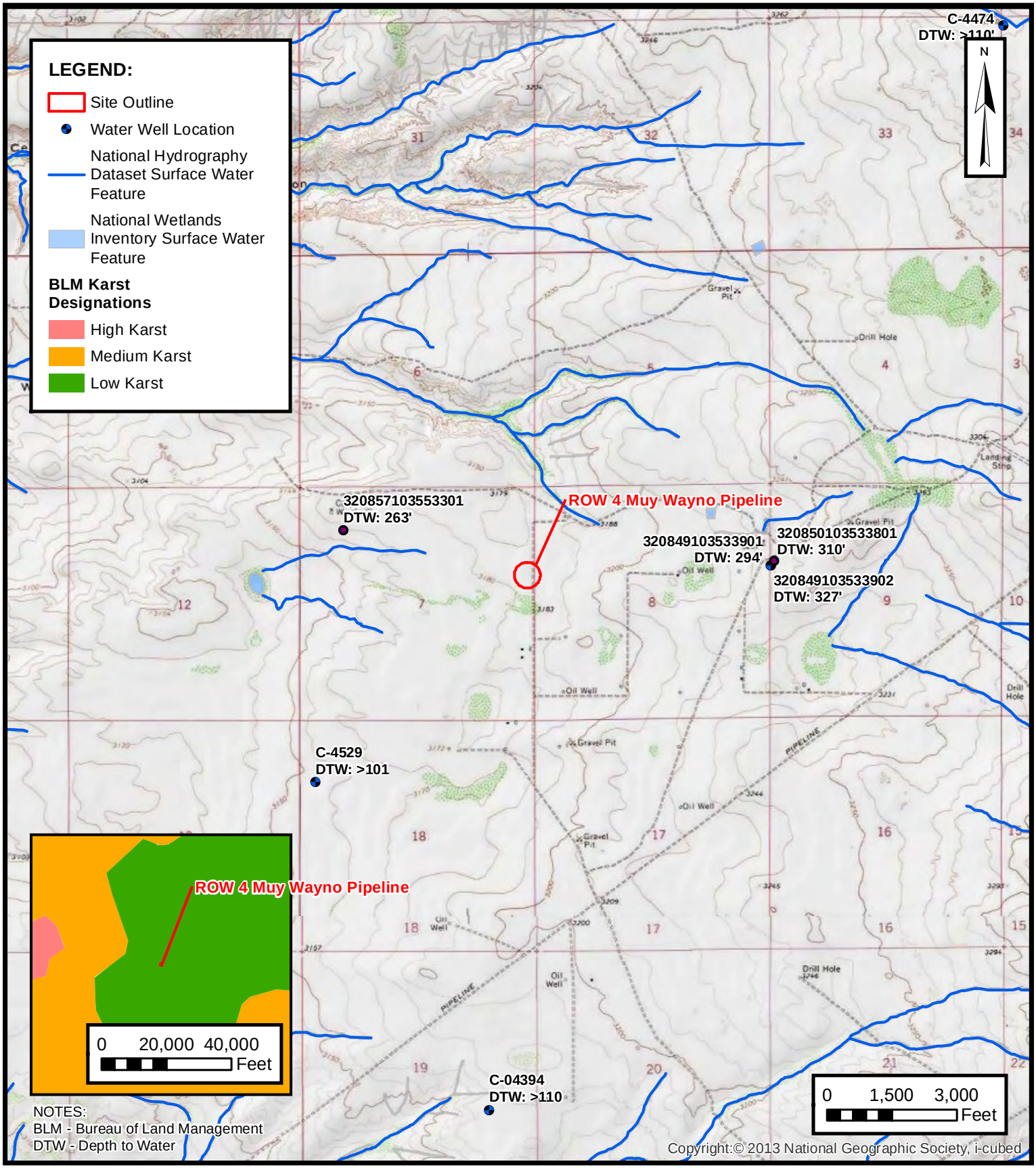
cc: Adrian Baker, XTO
New Mexico State Land Office

Appendices:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Figure 4	Proposed Excavation Extent
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic / Soil Sampling Logs
Appendix D	Laboratory Analytical Results
Appendix E	NMOCD Notifications

ENSOLUM

FIGURES

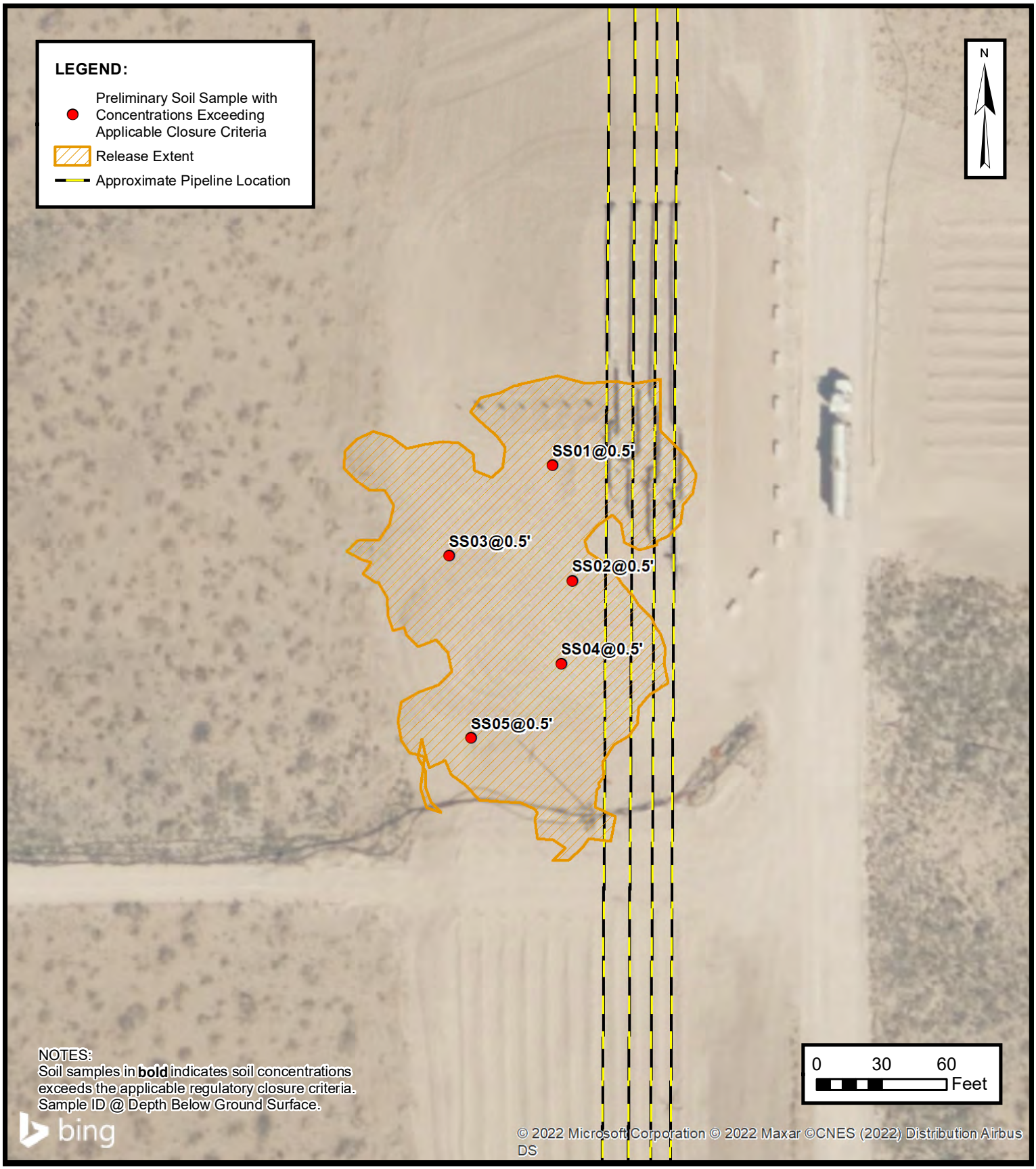


ENSOLUM
Environmental & Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
ROW 4 MUY WAYNO PIPELINE
NAPP2209039217
Unit H, Sec 07, T25S, R30E
Eddy County, New Mexico

FIGURE
1

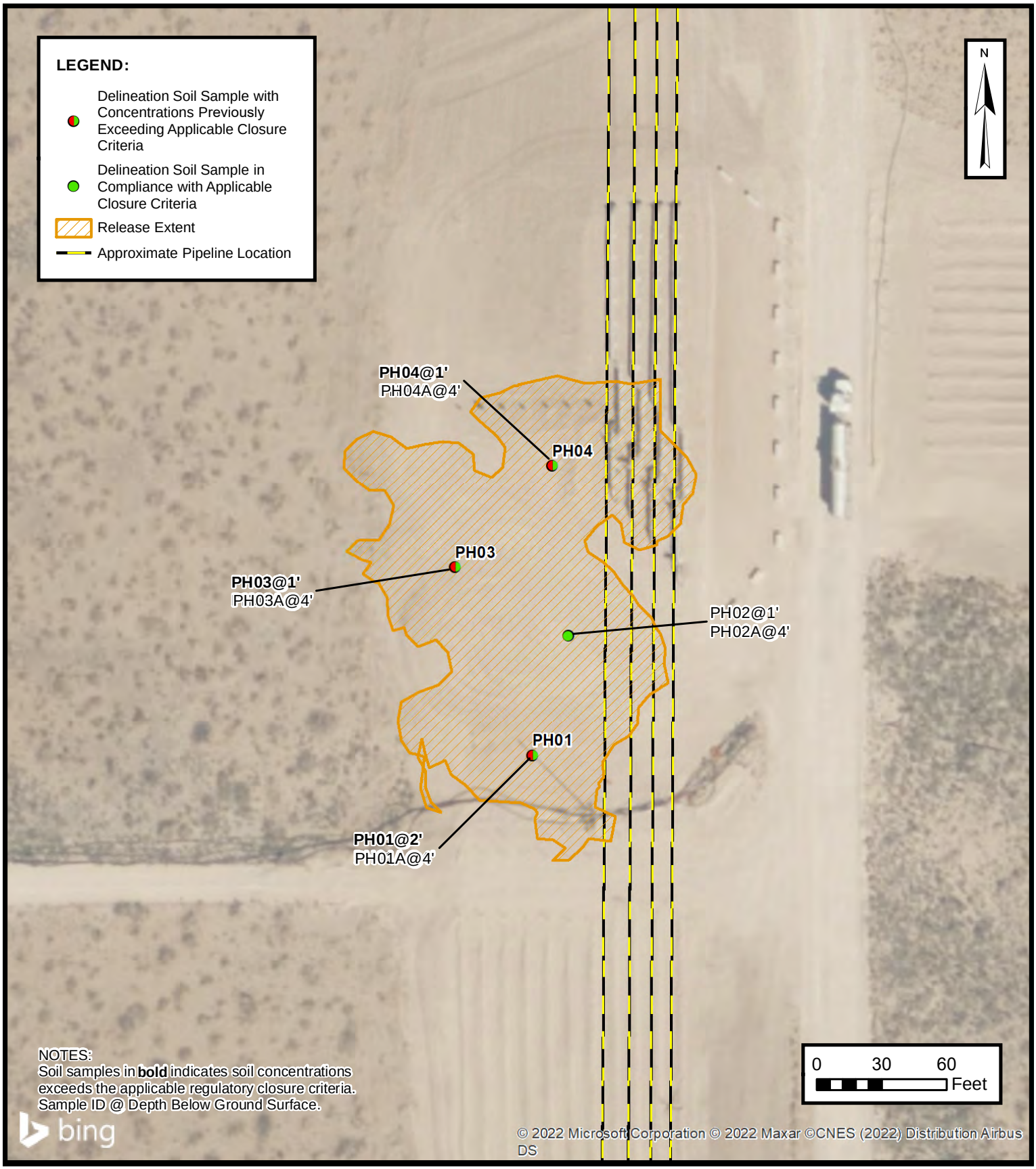


ENSOLUM
Environmental & Hydrogeologic Consultants

PRELIMINARY SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
ROW 4 MUY WAYNO PIPELINE
NAPP2209039217
Unit H, Sec 07, T25S, R30E
Eddy County, New Mexico

FIGURE
2



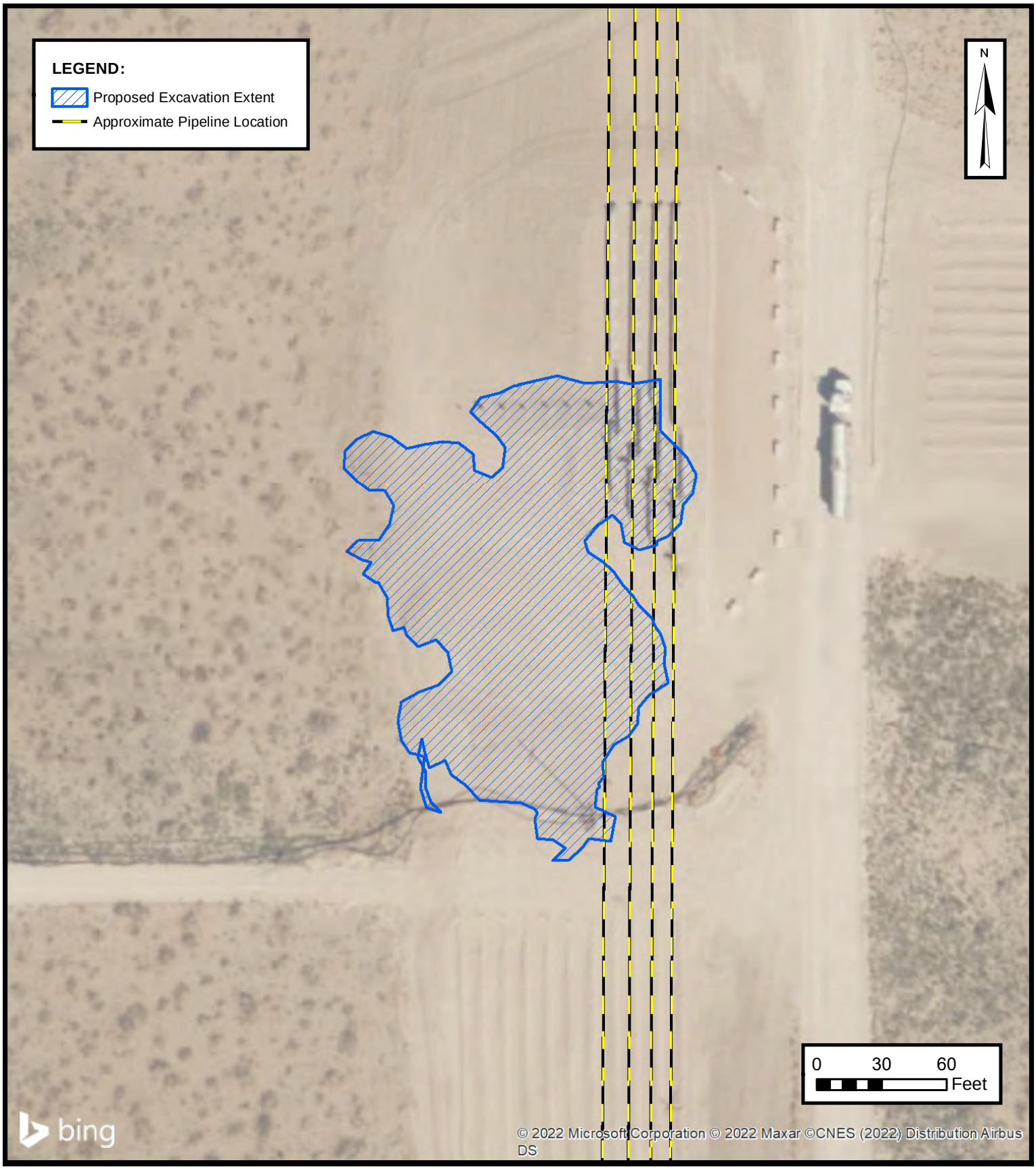
ENSOLUM
Environmental & Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
ROW 4 MUY WAYNO PIPELINE
NAPP2209039217
Unit H, Sec 07, T25S, R30E
Eddy County, New Mexico

FIGURE

3



ENSOLUM
Environmental & Hydrogeologic Consultants

PROPOSED EXCAVATION EXTENT

XTO ENERGY, INC
ROW 4 MUY WAYNO PIPELINE
NAPP2209039217
Unit H, Sec 07, T25S, R30E
Eddy County, New Mexico

FIGURE

4

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
ROW 4 Muy Wayno Pipeline
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 Assessment Soil Samples										
SS01	04/18/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**28,900***
SS02	04/18/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	**9,390***
SS03	04/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	**9,060***
SS04	04/18/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	**13,000***
SS05	04/18/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	**11,500***
Delineation Soil Samples										
PH01	06/03/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	**5,340***
PH01A	06/03/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,670
PH02	06/03/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	478*
PH02A	06/03/2022	4	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	97.1
PH03	06/03/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	**3,020***
PH03A	06/03/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	153
PH04	06/03/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	**1,860***
PH04A	06/03/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	35.3

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
* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard for chloride in the top 4 feet is 600 mg/kg

ENSOLUM

APPENDIX A

Referenced Well Records

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320857103553301

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320857103553301 25S.30E.07.112331

Eddy County, New Mexico
Latitude 32°08'57", Longitude 103°55'33" NAD27
Land-surface elevation 3,169 feet above NAVD88
The depth of the well is 385 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 measu
1959-02-05		D	62610		2903.75	NGVD29	1	Z		
1959-02-05		D	62611		2905.37	NAVD88	1	Z		
1959-02-05		D	72019	263.63			1	Z		
1959-03-07		D	62610		2904.08	NGVD29	1	Z		
1959-03-07		D	62611		2905.70	NAVD88	1	Z		
1959-03-07		D	72019	263.30			1	Z		
1987-10-20		D	62610		2903.13	NGVD29	1	Z		
1987-10-20		D	62611		2904.75	NAVD88	1	Z		
1987-10-20		D	72019	264.25			1	Z		
1992-11-06		D	62610		2904.38	NGVD29	1	S		
1992-11-06		D	62611		2906.00	NAVD88	1	S		
1992-11-06		D	72019	263.00			1	S		
1998-01-28		D	62610		2903.26	NGVD29	1	V		
1998-01-28		D	62611		2904.88	NAVD88	1	V		
1998-01-28		D	72019	264.12			1	V		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	V	Calibrated electric-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

National Water Information System: Web Interface

USGS Water Resources

Data Category: Site Information | Geographic Area: United States | GO

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

USGS 320857103553301 25S.30E.07.112331

Available data for this site SUMMARY OF ALL AVAILABLE DATA | GO

Well Site

DESCRIPTION:

Latitude 32°08'57", Longitude 103°55'33" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 385 feet
Land surface altitude: 3,169 feet above NAVD88.
Well completed in "Pecos River Basin alluvial aquifer" (N100PCSRVR) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-05	1998-01-28	5
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

---

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms

Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320857103553301

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2022-06-15 12:16:55 EDT
0.28 0.25 caww01

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 02459	4	4	1	02	25S	29E	598422	3558663*

Driller License:	1184	**Driller Company:**	WEST TEXAS WATER WELL SERVICE		
Driller Name:	COLLIS, ROBERT E. (LD)				
Drill Start Date:	07/27/1995	**Drill Finish Date:**	07/27/1995	**Plug Date:**	07/27/1995
Log File Date:	08/13/1996	**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	150 feet	**Depth Water:**	

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

ENSOLUM

APPENDIX B

Photographic Log

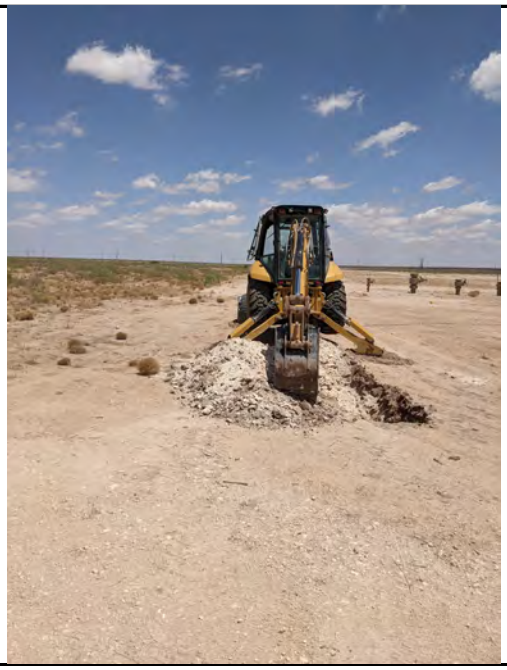
ENSOLUM

Photographic Log
XTO Energy, Inc.
ROW 4 Muy Wayno Pipeline
Incident Number NAPP2209039217

Photograph 1
Date: April 18, 2022
Description: Photo of release area during initial visit.

Photograph 2
Date: April 18, 2022
Description: Photo of release area during initial visit.

Photograph 3
Date: June 3, 2022
Description: Photo of delineation activities.



Photograph 4
Date: June 3, 2022
Description: Photo of delineation activities.

ENSOLUM

APPENDIX C

Lithologic / Soil Sampling Logs

ENSOLUM

	Sample Name: **PH01**	Date: **06/03/2022**
	Site Name: **ROW 4 Muy Wayno Pipeline**	
	Incident Number: **NAPP2209039217**	
	Job Number: 03E1558023	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: **Backhoe**
Coordinates:	Hole Diameter: NA	Total Depth: **4'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
M	5,964	1.5	Y				SW-SM	Brown, abundant silt, fine grain, dark brown, strong odor, staining, moist, well sorted, noncohesive.
M	6,462	1.2	Y			2		
M	1,120	0.4	N			4		SAA, light brown color, medium to large gravel, some small to large subrounded to subangular caliche, moist, (2cm-5cm).

TD @ 4 feet bgs

ENSOLUM

	Sample Name: **PH02**	Date: **06/03/2022**
	Site Name: **ROW 4 Muy Wayno Pipeline**	
	Incident Number: **NAPP2209039217**	
	Job Number: 03E1558023	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: **Backhoe**
Coordinates:	Hole Diameter: NA	Total Depth: **4'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
M	3,000	1.2	Y				SW-SM	Brown, abundant silt, fine grain, dark brown, strong odor, staining, moist, well sorted, noncohesive.
M	1,864	0.9	Y			2		
M	<168	0.9	N			4		SAA, light brown color, medium to large gravel, some small to large subrounded to subangular caliche, moist, (2cm-5cm).

TD @ 4 feet bgs

ENSOLUM

	Sample Name: **PH03**	Date: **06/03/2022**
	Site Name: **ROW 4 Muy Wayno Pipeline**	
	Incident Number: **NAPP2209039217**	
	Job Number: 03E1558023	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: **Backhoe**
Coordinates:	Hole Diameter: NA	Total Depth: **4'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
M	3,466	0.6	Y				SW-SM	Brown, abundant silt, fine grain, dark brown, strong odor, staining, moist, well sorted, noncohesive.
M	324.8	1.4	Y			2		
M	<168	0.6	N			4		SAA, light brown color, medium to large gravel, some small to large subrounded to subangular caliche, moist, (2cm-5cm).

TD @ 4 feet bgs

ENSOLUM

	Sample Name: **PH04**	Date: **06/03/2022**
	Site Name: **ROW 4 Muy Wayno Pipeline**	
	Incident Number: **NAPP2209039217**	
	Job Number: 03E1558023	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: **Backhoe**
Coordinates:	Hole Diameter: NA	Total Depth: **4'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
M	1,624	2.0	Y				SW-SM	Brown, abundant silt, fine grain, dark brown, strong odor, staining, moist, well sorted, noncohesive.
M	<168	1.1	Y			2		
M	<168	0.5	N			4		SAA, light brown color, medium to large gravel, some small to large subrounded to subangular caliche, moist, (2cm-5cm).

TD @ 4 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: 890-2207-1
Laboratory Sample Delivery Group: 03E1558023
Client Project/Site: ROW 4 Muy Wayno

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
4/28/2022 11:53:48 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: ROW 4 Muy Wayno

Laboratory Job ID: 890-2207-1
SDG: 03E1558023

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

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
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Job ID: 890-2207-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2207-1

Receipt
The samples were received on 4/19/2022 4:26 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-23940 and analytical batch 880-23883 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: SS01 (890-2207-1) and (890-2207-A-1-F MSD). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Client Sample ID: SS01

Date Collected: 04/18/22 14:05
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Lab Sample ID: 890-2207-1
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		04/21/22 11:35	04/21/22 22:38	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/21/22 11:35	04/21/22 22:38	1
Ethylbenzene	<0.00201	U F2 F1	0.00201		mg/Kg		04/21/22 11:35	04/21/22 22:38	1
m-Xylene & p-Xylene	<0.00402	U F1	0.00402		mg/Kg		04/21/22 11:35	04/21/22 22:38	1
o-Xylene	<0.00201	U F1	0.00201		mg/Kg		04/21/22 11:35	04/21/22 22:38	1
Xylenes, Total	<0.00402	U F1	0.00402		mg/Kg		04/21/22 11:35	04/21/22 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*296*	*S1+*	*70 - 130*	*04/21/22 11:35*	*04/21/22 22:38*	*1*
1,4-Difluorobenzene (Surr)	*277*	*S1+*	*70 - 130*	*04/21/22 11:35*	*04/21/22 22:38*	*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			04/22/22 11:18	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			04/25/22 09:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 00:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 00:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*04/21/22 13:45*	*04/23/22 00:06*	*1*
o-Terphenyl	*135*	*S1+*	*70 - 130*	*04/21/22 13:45*	*04/23/22 00:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28900**		252		mg/Kg			04/27/22 17:37	50

Client Sample ID: SS02

Date Collected: 04/18/22 14:10
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Lab Sample ID: 890-2207-2
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		04/21/22 11:35	04/21/22 22:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 22:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 22:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/21/22 11:35	04/21/22 22:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 22:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/21/22 11:35	04/21/22 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/21/22 11:35*	*04/21/22 22:59*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Client Sample ID: SS02

Date Collected: 04/18/22 14:10
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Lab Sample ID: 890-2207-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*04/21/22 11:35*	*04/21/22 22:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			04/22/22 11:18	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			04/25/22 09:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/21/22 13:45	04/23/22 01:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/21/22 13:45	04/23/22 01:11	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/21/22 13:45	04/23/22 01:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*04/21/22 13:45*	*04/23/22 01:11*	*1*
o-Terphenyl	*121*		*70 - 130*	*04/21/22 13:45*	*04/23/22 01:11*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9390**		99.8	mg/Kg			04/27/22 17:46	20

Client Sample ID: SS03

Date Collected: 04/18/22 14:15
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Lab Sample ID: 890-2207-3

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		04/21/22 11:35	04/21/22 23:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:35	04/21/22 23:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:35	04/21/22 23:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/21/22 11:35	04/21/22 23:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:35	04/21/22 23:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/21/22 11:35	04/21/22 23:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*04/21/22 11:35*	*04/21/22 23:19*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/21/22 11:35*	*04/21/22 23:19*	*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			04/22/22 11:18	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			04/25/22 09:06	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Client Sample ID: SS03

Date Collected: 04/18/22 14:15
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Lab Sample ID: 890-2207-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 01:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 01:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 01:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*04/21/22 13:45*	*04/23/22 01:32*	*1*
o-Terphenyl	*122*		*70 - 130*	*04/21/22 13:45*	*04/23/22 01:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9060**		49.8		mg/Kg			04/27/22 18:14	10

Client Sample ID: SS04

Date Collected: 04/18/22 14:20
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Lab Sample ID: 890-2207-4
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		04/21/22 11:35	04/21/22 23:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 23:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 23:40	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/21/22 11:35	04/21/22 23:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 23:40	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/21/22 11:35	04/21/22 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*04/21/22 11:35*	*04/21/22 23:40*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/21/22 11:35*	*04/21/22 23:40*	*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			04/22/22 11:18	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			04/25/22 09:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 01:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 01:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/21/22 13:45	04/23/22 01:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*04/21/22 13:45*	*04/23/22 01:54*	*1*
o-Terphenyl	*120*		*70 - 130*	*04/21/22 13:45*	*04/23/22 01:54*	*1*

Client Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Client Sample ID: SS04

Lab Sample ID: 890-2207-4
Matrix: Solid
Date Collected: 04/18/22 14:20
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		99.4		mg/Kg			04/27/22 18:23	20

Client Sample ID: SS05

Lab Sample ID: 890-2207-5
Matrix: Solid
Date Collected: 04/18/22 14:25
Date Received: 04/19/22 16:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/22/22 00:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/22/22 00:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/22/22 00:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/21/22 11:35	04/22/22 00:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/22/22 00:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/21/22 11:35	04/22/22 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/21/22 11:35*	*04/22/22 00:00*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/21/22 11:35*	*04/22/22 00:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			04/22/22 11:18	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			04/25/22 09:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/21/22 13:45	04/23/22 02:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/21/22 13:45	04/23/22 02:15	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/21/22 13:45	04/23/22 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*04/21/22 13:45*	*04/23/22 02:15*	*1*
o-Terphenyl	*117*		*70 - 130*	*04/21/22 13:45*	*04/23/22 02:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11500		99.6		mg/Kg			04/27/22 18:32	20

Surrogate Summary

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

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)
890-2207-1	SS01	296 S1+	277 S1+
890-2207-1 MS	SS01	106	100
890-2207-1 MSD	SS01	107	102
890-2207-2	SS02	108	99
890-2207-3	SS03	104	97
890-2207-4	SS04	106	98
890-2207-5	SS05	105	98
LCS 880-23940/1-A	Lab Control Sample	106	103
LCSD 880-23940/2-A	Lab Control Sample Dup	104	101
MB 880-23898/5-A	Method Blank	101	97
MB 880-23940/5-A	Method Blank	99	91

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)
890-2207-1	SS01	124	135 S1+
890-2207-1 MS	SS01	110	108
890-2207-1 MSD	SS01	133 S1+	128
890-2207-2	SS02	113	121
890-2207-3	SS03	115	122
890-2207-4	SS04	113	120
890-2207-5	SS05	110	117
LCS 880-23941/2-A	Lab Control Sample	115	109
LCSD 880-23941/3-A	Lab Control Sample Dup	116	113
MB 880-23941/1-A	Method Blank	113	125

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-23898/5-A
Matrix: Solid
Analysis Batch: 23883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23898

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/21/22 09:32	04/21/22 11:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/22 09:32	04/21/22 11:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/22 09:32	04/21/22 11:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/21/22 09:32	04/21/22 11:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/22 09:32	04/21/22 11:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/21/22 09:32	04/21/22 11:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*04/21/22 09:32*	*04/21/22 11:41*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/21/22 09:32*	*04/21/22 11:41*	*1*

Lab Sample ID: MB 880-23940/5-A
Matrix: Solid
Analysis Batch: 23883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23940

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 22:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 22:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 22:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/21/22 11:35	04/21/22 22:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/22 11:35	04/21/22 22:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/21/22 11:35	04/21/22 22:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*04/21/22 11:35*	*04/21/22 22:17*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*04/21/22 11:35*	*04/21/22 22:17*	*1*

Lab Sample ID: LCS 880-23940/1-A
Matrix: Solid
Analysis Batch: 23883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23940

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1005		mg/Kg		100	70 - 130		
Toluene			0.100	0.09886		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.09908		mg/Kg		99	70 - 130		
m-Xylene & p-Xylene			0.200	0.2021		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.1023		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-23940/2-A
Matrix: Solid
Analysis Batch: 23883

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23940

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09617		mg/Kg		96	70 - 130	4	35

QC Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

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

Lab Sample ID: LCSD 880-23940/2-A
Matrix: Solid
Analysis Batch: 23883

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23940

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09442		mg/Kg		94	70 - 130	5	35
Ethylbenzene			0.100	0.09448		mg/Kg		94	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1923		mg/Kg		96	70 - 130	5	35
o-Xylene			0.100	0.09722		mg/Kg		97	70 - 130	5	35

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

Lab Sample ID: 890-2207-1 MS
Matrix: Solid
Analysis Batch: 23883

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 23940

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1025		mg/Kg		102	70 - 130
Toluene	<0.00201	U	0.101	0.09214		mg/Kg		91	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.101	0.07746		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.202	0.1606		mg/Kg		80	70 - 130
o-Xylene	<0.00201	U F1	0.101	0.07856		mg/Kg		78	70 - 130

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

Lab Sample ID: 890-2207-1 MSD
Matrix: Solid
Analysis Batch: 23883

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 23940

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0994	0.09413		mg/Kg		95	70 - 130	9	35
Toluene	<0.00201	U	0.0994	0.08168		mg/Kg		82	70 - 130	12	35
Ethylbenzene	<0.00201	U F2 F1	0.0994	0.03017	F2 F1	mg/Kg		30	70 - 130	88	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1354	F1	mg/Kg		68	70 - 130	17	35
o-Xylene	<0.00201	U F1	0.0994	0.06657	F1	mg/Kg		67	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-23941/1-A
Matrix: Solid
Analysis Batch: 24009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23941

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/21/22 13:45	04/22/22 23:02	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

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

Lab Sample ID: MB 880-23941/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24009 — **Prep Batch: 23941**

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		04/21/22 13:45	04/22/22 23:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/21/22 13:45	04/22/22 23:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*04/21/22 13:45*	*04/22/22 23:02*	*1*
o-Terphenyl	*125*		*70 - 130*	*04/21/22 13:45*	*04/22/22 23:02*	*1*

Lab Sample ID: LCS 880-23941/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24009 — **Prep Batch: 23941**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	921.4		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1216		mg/Kg		122	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*109*		*70 - 130*

Lab Sample ID: LCSD 880-23941/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24009 — **Prep Batch: 23941**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	953.6		mg/Kg		95	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1108		mg/Kg		111	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*116*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 890-2207-1 MS — **Client Sample ID: SS01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24009 — **Prep Batch: 23941**

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	1000	947.1		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	961.1		mg/Kg		96	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*110*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

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

Lab Sample ID: 890-2207-1 MSD — **Client Sample ID: SS01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24009 — **Prep Batch: 23941**

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	998	1157		mg/Kg		114	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1177		mg/Kg		118	70 - 130	20	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*133*	*S1+*	*70 - 130*
o-Terphenyl	*128*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23904/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24341

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/27/22 14:26	1

Lab Sample ID: LCS 880-23904/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24341

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	271.1		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-23904/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24341

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	258.9		mg/Kg		104	90 - 110	5	20

Lab Sample ID: 880-13933-A-5-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24341

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	376		250	603.5		mg/Kg		91	90 - 110		

Lab Sample ID: 880-13933-A-5-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24341

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	376		250	617.5		mg/Kg		97	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

GC VOA

Analysis Batch: 23883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Total/NA	Solid	8021B	23940
890-2207-2	SS02	Total/NA	Solid	8021B	23940
890-2207-3	SS03	Total/NA	Solid	8021B	23940
890-2207-4	SS04	Total/NA	Solid	8021B	23940
890-2207-5	SS05	Total/NA	Solid	8021B	23940
MB 880-23898/5-A	Method Blank	Total/NA	Solid	8021B	23898
MB 880-23940/5-A	Method Blank	Total/NA	Solid	8021B	23940
LCS 880-23940/1-A	Lab Control Sample	Total/NA	Solid	8021B	23940
LCSD 880-23940/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23940
890-2207-1 MS	SS01	Total/NA	Solid	8021B	23940
890-2207-1 MSD	SS01	Total/NA	Solid	8021B	23940

Prep Batch: 23898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-23898/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 23940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Total/NA	Solid	5035	
890-2207-2	SS02	Total/NA	Solid	5035	
890-2207-3	SS03	Total/NA	Solid	5035	
890-2207-4	SS04	Total/NA	Solid	5035	
890-2207-5	SS05	Total/NA	Solid	5035	
MB 880-23940/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23940/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23940/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2207-1 MS	SS01	Total/NA	Solid	5035	
890-2207-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 24031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Total/NA	Solid	Total BTEX	
890-2207-2	SS02	Total/NA	Solid	Total BTEX	
890-2207-3	SS03	Total/NA	Solid	Total BTEX	
890-2207-4	SS04	Total/NA	Solid	Total BTEX	
890-2207-5	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 23941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Total/NA	Solid	8015NM Prep	
890-2207-2	SS02	Total/NA	Solid	8015NM Prep	
890-2207-3	SS03	Total/NA	Solid	8015NM Prep	
890-2207-4	SS04	Total/NA	Solid	8015NM Prep	
890-2207-5	SS05	Total/NA	Solid	8015NM Prep	
MB 880-23941/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23941/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23941/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2207-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-2207-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

GC Semi VOA

Analysis Batch: 24009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Total/NA	Solid	8015B NM	23941
890-2207-2	SS02	Total/NA	Solid	8015B NM	23941
890-2207-3	SS03	Total/NA	Solid	8015B NM	23941
890-2207-4	SS04	Total/NA	Solid	8015B NM	23941
890-2207-5	SS05	Total/NA	Solid	8015B NM	23941
MB 880-23941/1-A	Method Blank	Total/NA	Solid	8015B NM	23941
LCS 880-23941/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23941
LCSD 880-23941/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23941
890-2207-1 MS	SS01	Total/NA	Solid	8015B NM	23941
890-2207-1 MSD	SS01	Total/NA	Solid	8015B NM	23941

Analysis Batch: 24123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Total/NA	Solid	8015 NM	
890-2207-2	SS02	Total/NA	Solid	8015 NM	
890-2207-3	SS03	Total/NA	Solid	8015 NM	
890-2207-4	SS04	Total/NA	Solid	8015 NM	
890-2207-5	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 23904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Soluble	Solid	DI Leach	
890-2207-2	SS02	Soluble	Solid	DI Leach	
890-2207-3	SS03	Soluble	Solid	DI Leach	
890-2207-4	SS04	Soluble	Solid	DI Leach	
890-2207-5	SS05	Soluble	Solid	DI Leach	
MB 880-23904/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23904/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23904/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13933-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-13933-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2207-1	SS01	Soluble	Solid	300.0	23904
890-2207-2	SS02	Soluble	Solid	300.0	23904
890-2207-3	SS03	Soluble	Solid	300.0	23904
890-2207-4	SS04	Soluble	Solid	300.0	23904
890-2207-5	SS05	Soluble	Solid	300.0	23904
MB 880-23904/1-A	Method Blank	Soluble	Solid	300.0	23904
LCS 880-23904/2-A	Lab Control Sample	Soluble	Solid	300.0	23904
LCSD 880-23904/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23904
880-13933-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	23904
880-13933-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	23904

Lab Chronicle

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Client Sample ID: SS01

Lab Sample ID: 890-2207-1

Date Collected: 04/18/22 14:05

Matrix: Solid

Date Received: 04/19/22 16:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	23940	04/21/22 11:35	MR	XEN MID
Total/NA	Analysis	8021B		1			23883	04/21/22 22:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24031	04/22/22 11:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24123	04/25/22 09:06	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23941	04/21/22 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24009	04/23/22 00:06	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	23904	04/21/22 09:39	CH	XEN MID
Soluble	Analysis	300.0		50			24341	04/27/22 17:37	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-2207-2

Date Collected: 04/18/22 14:10

Matrix: Solid

Date Received: 04/19/22 16:26

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	23940	04/21/22 11:35	MR	XEN MID
Total/NA	Analysis	8021B		1			23883	04/21/22 22:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24031	04/22/22 11:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24123	04/25/22 09:06	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23941	04/21/22 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24009	04/23/22 01:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23904	04/21/22 09:39	CH	XEN MID
Soluble	Analysis	300.0		20			24341	04/27/22 17:46	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-2207-3

Date Collected: 04/18/22 14:15

Matrix: Solid

Date Received: 04/19/22 16:26

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	23940	04/21/22 11:35	MR	XEN MID
Total/NA	Analysis	8021B		1			23883	04/21/22 23:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24031	04/22/22 11:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24123	04/25/22 09:06	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23941	04/21/22 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24009	04/23/22 01:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23904	04/21/22 09:39	CH	XEN MID
Soluble	Analysis	300.0		10			24341	04/27/22 18:14	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-2207-4

Date Collected: 04/18/22 14:20

Matrix: Solid

Date Received: 04/19/22 16:26

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	23940	04/21/22 11:35	MR	XEN MID
Total/NA	Analysis	8021B		1			23883	04/21/22 23:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24031	04/22/22 11:18	AJ	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Client Sample ID: SS04
Date Collected: 04/18/22 14:20
Date Received: 04/19/22 16:26

Lab Sample ID: 890-2207-4
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			24123	04/25/22 09:06	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23941	04/21/22 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24009	04/23/22 01:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	23904	04/21/22 09:39	CH	XEN MID
Soluble	Analysis	300.0		20			24341	04/27/22 18:23	CH	XEN MID

Client Sample ID: SS05
Date Collected: 04/18/22 14:25
Date Received: 04/19/22 16:26

Lab Sample ID: 890-2207-5
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			5.00 g	5 mL	23940	04/21/22 11:35	MR	XEN MID
Total/NA	Analysis	8021B		1			23883	04/22/22 00:00	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24031	04/22/22 11:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24123	04/25/22 09:06	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23941	04/21/22 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24009	04/23/22 02:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23904	04/21/22 09:39	CH	XEN MID
Soluble	Analysis	300.0		20			24341	04/27/22 18:32	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: ROW 4 Muy Wayno

Job ID: 890-2207-1
SDG: 03E1558023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2207-1	SS01	Solid	04/18/22 14:05	04/19/22 16:26	0.5
890-2207-2	SS02	Solid	04/18/22 14:10	04/19/22 16:26	0.5
890-2207-3	SS03	Solid	04/18/22 14:15	04/19/22 16:26	0.5
890-2207-4	SS04	Solid	04/18/22 14:20	04/19/22 16:26	0.5
890-2207-5	SS05	Solid	04/18/22 14:25	04/19/22 16:26	0.5

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)	Adrian Baker
Company Name:	Ensolum LLC	Company Name:	XTO Energy Inc.
Address:	705 W Wadley Ave. Suite 240	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503 Email:		Kjennings@ensolum.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:	Row 4 Muy Wayno line	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558023	Due Date:	
Project Location:	Eddy	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Alexis Castro		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	3.8	
Total Containers:		Corrected Temperature:	3.6	

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	Pres. Code	BTEX	TPH	Chlorides (CL-)
SS01	S	04/8/22	1405	0.5'		1		X	X	X
SS02			1410							
SS03			1415							
SS04			1420							
SS05			1425							

AC

890-2207 Chain of Custody

Sample Comments

INC: nAPP2209039217
AFE: DD. 2017.01427,
CAP. CMP. 01

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		4-19-22 1626	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2207-1
SDG Number: 03E1558023

Login Number: 2207
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2207-1
SDG Number: 03E1558023

Login Number: 2207
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/21/22 11:26 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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2379-1
Laboratory Sample Delivery Group: 03E1558023
Client Project/Site: ROW 3 Muy Wayno Line

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
6/10/2022 3:53:01 PM

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: ROW 3 Muy Wayno Line

Laboratory Job ID: 890-2379-1
SDG: 03E1558023

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2379-1
Project/Site: ROW 3 Muy Wayno Line SDG: 03E1558023

Qualifiers

GC 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.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Job ID: 890-2379-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2379-1

Receipt
The samples were received on 6/6/2022 9:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: PH04 (890-2379-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-27017 and analytical batch 880-26971 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-26968 and analytical batch 880-26955 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH01

Date Collected: 06/03/22 09:35
Date Received: 06/06/22 09:53
Sample Depth: 2

Lab Sample ID: 890-2379-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 06:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 06:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 06:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/07/22 14:58	06/08/22 06:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 06:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/07/22 14:58	06/08/22 06:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*06/07/22 14:58*	*06/08/22 06:05*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*06/07/22 14:58*	*06/08/22 06:05*	*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			06/08/22 15:52	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			06/08/22 10:33	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		06/07/22 08:15	06/07/22 17:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 17:57	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*06/07/22 08:15*	*06/07/22 17:57*	*1*
o-Terphenyl	*87*		*70 - 130*	*06/07/22 08:15*	*06/07/22 17:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5340**		50.4		mg/Kg			06/09/22 21:14	10

Client Sample ID: PH01

Date Collected: 06/03/22 09:55
Date Received: 06/06/22 09:53
Sample Depth: 4

Lab Sample ID: 890-2379-2
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		06/07/22 14:58	06/08/22 06:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/07/22 14:58	06/08/22 06:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/07/22 14:58	06/08/22 06:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/07/22 14:58	06/08/22 06:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/07/22 14:58	06/08/22 06:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/07/22 14:58	06/08/22 06:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/07/22 14:58*	*06/08/22 06:25*	*1*

Client Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH01

Date Collected: 06/03/22 09:55
Date Received: 06/06/22 09:53
Sample Depth: 4

Lab Sample ID: 890-2379-2

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*06/07/22 14:58*	*06/08/22 06:25*	*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			06/08/22 15:52	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			06/08/22 10:33	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		06/07/22 08:15	06/07/22 18:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/07/22 08:15	06/07/22 18:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/07/22 08:15	06/07/22 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*81*		*70 - 130*	*06/07/22 08:15*	*06/07/22 18:18*	*1*
o-Terphenyl	*91*		*70 - 130*	*06/07/22 08:15*	*06/07/22 18:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1670**		24.9	mg/Kg			06/09/22 21:37	5

Client Sample ID: PH02

Date Collected: 06/03/22 10:30
Date Received: 06/06/22 09:53
Sample Depth: 1

Lab Sample ID: 890-2379-3

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		06/07/22 14:58	06/08/22 06:46	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 06:46	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 06:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 06:46	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 06:46	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 06:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*06/07/22 14:58*	*06/08/22 06:46*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/07/22 14:58*	*06/08/22 06:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/08/22 15:52	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			06/08/22 10:33	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH02

Date Collected: 06/03/22 10:30
Date Received: 06/06/22 09:53
Sample Depth: 1

Lab Sample ID: 890-2379-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 18:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 18:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*06/07/22 08:15*	*06/07/22 18:40*	*1*
o-Terphenyl	*93*		*70 - 130*	*06/07/22 08:15*	*06/07/22 18:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**478**		4.97		mg/Kg			06/10/22 11:36	1

Client Sample ID: PH02

Date Collected: 06/03/22 12:25
Date Received: 06/06/22 09:53
Sample Depth: 4

Lab Sample ID: 890-2379-4

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		06/07/22 14:58	06/08/22 07:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 07:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 07:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/07/22 14:58	06/08/22 07:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 07:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/07/22 14:58	06/08/22 07:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*06/07/22 14:58*	*06/08/22 07:06*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/07/22 14:58*	*06/08/22 07:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			06/08/22 15:52	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			06/08/22 10:33	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		06/07/22 08:15	06/07/22 19:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 19:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*06/07/22 08:15*	*06/07/22 19:02*	*1*
o-Terphenyl	*87*		*70 - 130*	*06/07/22 08:15*	*06/07/22 19:02*	*1*

Client Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH02

Lab Sample ID: 890-2379-4
Matrix: Solid
Date Collected: 06/03/22 12:25
Date Received: 06/06/22 09:53
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	97.1		4.97		mg/Kg			06/09/22 21:53	1

Client Sample ID: PH03

Lab Sample ID: 890-2379-5
Matrix: Solid
Date Collected: 06/03/22 10:50
Date Received: 06/06/22 09:53
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 07:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 07:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 07:27	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/07/22 14:58	06/08/22 07:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 07:27	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/07/22 14:58	06/08/22 07:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*06/07/22 14:58*	*06/08/22 07:27*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/07/22 14:58*	*06/08/22 07:27*	*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			06/08/22 15:52	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			06/08/22 10:33	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		06/07/22 08:15	06/07/22 19:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/22 08:15	06/07/22 19:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/22 08:15	06/07/22 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/07/22 08:15*	*06/07/22 19:24*	*1*
o-Terphenyl	*89*		*70 - 130*	*06/07/22 08:15*	*06/07/22 19:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3020		25.0		mg/Kg			06/09/22 22:01	5

Client Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH03

Date Collected: 06/03/22 11:05
Date Received: 06/06/22 09:53
Sample Depth: 4

Lab Sample ID: 890-2379-6

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		06/07/22 14:58	06/08/22 07:47	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/07/22 14:58	06/08/22 07:47	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/07/22 14:58	06/08/22 07:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/07/22 14:58	06/08/22 07:47	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/07/22 14:58	06/08/22 07:47	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/07/22 14:58	06/08/22 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*06/07/22 14:58*	*06/08/22 07:47*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/07/22 14:58*	*06/08/22 07:47*	*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			06/08/22 15:52	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			06/08/22 10:33	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		06/07/22 08:15	06/07/22 19:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/22 08:15	06/07/22 19:45	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/22 08:15	06/07/22 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/07/22 08:15*	*06/07/22 19:45*	*1*
o-Terphenyl	*92*		*70 - 130*	*06/07/22 08:15*	*06/07/22 19:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**153**		5.02		mg/Kg			06/09/22 22:09	1

Client Sample ID: PH04

Date Collected: 06/03/22 12:30
Date Received: 06/06/22 09:53
Sample Depth: 1

Lab Sample ID: 890-2379-7

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		06/07/22 14:58	06/08/22 08:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/07/22 14:58	06/08/22 08:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/07/22 14:58	06/08/22 08:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/07/22 14:58	06/08/22 08:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/07/22 14:58	06/08/22 08:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/07/22 14:58	06/08/22 08:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/07/22 14:58*	*06/08/22 08:08*	*1*

Client Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH04

Date Collected: 06/03/22 12:30
Date Received: 06/06/22 09:53
Sample Depth: 1

Lab Sample ID: 890-2379-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*06/07/22 14:58*	*06/08/22 08:08*	*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			06/08/22 15:52	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			06/08/22 10:33	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		06/07/22 08:15	06/07/22 20:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/07/22 08:15	06/07/22 20:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/07/22 08:15	06/07/22 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*06/07/22 08:15*	*06/07/22 20:07*	*1*
o-Terphenyl	*91*		*70 - 130*	*06/07/22 08:15*	*06/07/22 20:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1860**		25.0	mg/Kg			06/09/22 22:17	5

Client Sample ID: PH04

Date Collected: 06/03/22 12:45
Date Received: 06/06/22 09:53
Sample Depth: 4

Lab Sample ID: 890-2379-8

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		06/07/22 14:58	06/08/22 08:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 08:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 08:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 08:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 08:52	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 08:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*06/07/22 14:58*	*06/08/22 08:52*	*1*
1,4-Difluorobenzene (Surr)	*60*	*S1-*	*70 - 130*	*06/07/22 14:58*	*06/08/22 08:52*	*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			06/08/22 15:52	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			06/08/22 10:33	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH04

Date Collected: 06/03/22 12:45
Date Received: 06/06/22 09:53
Sample Depth: 4

Lab Sample ID: 890-2379-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 20:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 20:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/07/22 08:15	06/07/22 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/07/22 08:15*	*06/07/22 20:28*	*1*
o-Terphenyl	*92*		*70 - 130*	*06/07/22 08:15*	*06/07/22 20:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.3**		4.95		mg/Kg			06/10/22 07:56	1

Surrogate Summary

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

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)
890-2374-A-5-C MS	Matrix Spike	108	100
890-2374-A-5-D MSD	Matrix Spike Duplicate	110	100
890-2379-1	PH01	109	98
890-2379-2	PH01	110	99
890-2379-3	PH02	114	100
890-2379-4	PH02	111	100
890-2379-5	PH03	116	95
890-2379-6	PH03	115	101
890-2379-7	PH04	112	99
890-2379-8	PH04	69 S1-	60 S1-
LCS 880-27017/1-A	Lab Control Sample	108	99
LCSD 880-27017/2-A	Lab Control Sample Dup	108	97
MB 880-26988/5-A	Method Blank	98	100
MB 880-27017/5-A	Method Blank	99	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2376-A-101-B MS	Matrix Spike	86	84
890-2376-A-101-C MSD	Matrix Spike Duplicate	84	80
890-2379-1	PH01	76	87
890-2379-2	PH01	81	91
890-2379-3	PH02	80	93
890-2379-4	PH02	80	87
890-2379-5	PH03	84	89
890-2379-6	PH03	84	92
890-2379-7	PH04	83	91
890-2379-8	PH04	84	92
LCS 880-26968/2-A	Lab Control Sample	85	86
LCSD 880-26968/3-A	Lab Control Sample Dup	75	74
MB 880-26968/1-A	Method Blank	72	86

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26988/5-A
Matrix: Solid
Analysis Batch: 26971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26988

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/22 08:57	06/07/22 12:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/22 08:57	06/07/22 12:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/22 08:57	06/07/22 12:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/07/22 08:57	06/07/22 12:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/22 08:57	06/07/22 12:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/07/22 08:57	06/07/22 12:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*06/07/22 08:57*	*06/07/22 12:43*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/07/22 08:57*	*06/07/22 12:43*	*1*

Lab Sample ID: MB 880-27017/5-A
Matrix: Solid
Analysis Batch: 26971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27017

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 00:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 00:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 00:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/07/22 14:58	06/08/22 00:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/22 14:58	06/08/22 00:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/07/22 14:58	06/08/22 00:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*06/07/22 14:58*	*06/08/22 00:22*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/07/22 14:58*	*06/08/22 00:22*	*1*

Lab Sample ID: LCS 880-27017/1-A
Matrix: Solid
Analysis Batch: 26971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27017

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09392		mg/Kg		94	70 - 130		
Toluene			0.100	0.09786		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.09108		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.2075		mg/Kg		104	70 - 130		
o-Xylene			0.100	0.1041		mg/Kg		104	70 - 130		

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

Lab Sample ID: LCSD 880-27017/2-A
Matrix: Solid
Analysis Batch: 26971

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27017

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08291		mg/Kg		83	70 - 130	12	35

QC Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

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

Lab Sample ID: LCSD 880-27017/2-A
Matrix: Solid
Analysis Batch: 26971

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27017

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09423		mg/Kg		94	70 - 130	4	35
Ethylbenzene			0.100	0.08889		mg/Kg		89	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2054		mg/Kg		103	70 - 130	1	35
o-Xylene			0.100	0.1029		mg/Kg		103	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-2374-A-5-C MS
Matrix: Solid
Analysis Batch: 26971

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27017

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.100	0.05763	F1	mg/Kg		58	70 - 130
Toluene	<0.00201	U	0.100	0.07360		mg/Kg		73	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.07003		mg/Kg		70	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1634		mg/Kg		82	70 - 130
o-Xylene	<0.00201	U	0.100	0.08332		mg/Kg		83	70 - 130

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

Lab Sample ID: 890-2374-A-5-D MSD
Matrix: Solid
Analysis Batch: 26971

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27017

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.07694		mg/Kg		78	70 - 130	29	35
Toluene	<0.00201	U	0.0990	0.08291		mg/Kg		84	70 - 130	12	35
Ethylbenzene	<0.00201	U	0.0990	0.07812		mg/Kg		79	70 - 130	11	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1796		mg/Kg		91	70 - 130	9	35
o-Xylene	<0.00201	U	0.0990	0.09055		mg/Kg		91	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-26968/1-A
Matrix: Solid
Analysis Batch: 26955

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26968

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		06/07/22 08:15	06/07/22 10:51	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

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

Lab Sample ID: MB 880-26968/1-A
Matrix: Solid
Analysis Batch: 26955

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26968

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		06/07/22 08:15	06/07/22 10:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/22 08:15	06/07/22 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*06/07/22 08:15*	*06/07/22 10:51*	*1*
o-Terphenyl	*86*		*70 - 130*	*06/07/22 08:15*	*06/07/22 10:51*	*1*

Lab Sample ID: LCS 880-26968/2-A
Matrix: Solid
Analysis Batch: 26955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26968

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	810.3		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1021		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: LCSD 880-26968/3-A
Matrix: Solid
Analysis Batch: 26955

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26968

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	727.7		mg/Kg		73	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	863.1		mg/Kg		86	70 - 130	17	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*75*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Lab Sample ID: 890-2376-A-101-B MS
Matrix: Solid
Analysis Batch: 26955

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 26968

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	997	677.2	F1	mg/Kg		68	70 - 130		
Diesel Range Organics (Over C10-C28)	60.3		997	814.5		mg/Kg		76	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

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

Lab Sample ID: 890-2376-A-101-C MSD
Matrix: Solid
Analysis Batch: 26955

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 26968

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	1000	672.4	F1	mg/Kg		67	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	60.3		1000	791.9		mg/Kg		73	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*80*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27031/1-A
Matrix: Solid
Analysis Batch: 27217

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			06/09/22 18:29	1

Lab Sample ID: LCS 880-27031/2-A
Matrix: Solid
Analysis Batch: 27217

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	246.3		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-27031/3-A
Matrix: Solid
Analysis Batch: 27217

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	247.1		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-15521-A-3-C MS
Matrix: Solid
Analysis Batch: 27217

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	18.9		252	263.8		mg/Kg		97	90 - 110		

Lab Sample ID: 880-15521-A-3-D MSD
Matrix: Solid
Analysis Batch: 27217

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	18.9		252	263.3		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

GC VOA

Analysis Batch: 26971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Total/NA	Solid	8021B	27017
890-2379-2	PH01	Total/NA	Solid	8021B	27017
890-2379-3	PH02	Total/NA	Solid	8021B	27017
890-2379-4	PH02	Total/NA	Solid	8021B	27017
890-2379-5	PH03	Total/NA	Solid	8021B	27017
890-2379-6	PH03	Total/NA	Solid	8021B	27017
890-2379-7	PH04	Total/NA	Solid	8021B	27017
890-2379-8	PH04	Total/NA	Solid	8021B	27017
MB 880-26988/5-A	Method Blank	Total/NA	Solid	8021B	26988
MB 880-27017/5-A	Method Blank	Total/NA	Solid	8021B	27017
LCS 880-27017/1-A	Lab Control Sample	Total/NA	Solid	8021B	27017
LCSD 880-27017/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27017
890-2374-A-5-C MS	Matrix Spike	Total/NA	Solid	8021B	27017
890-2374-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27017

Prep Batch: 26988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26988/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 27017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Total/NA	Solid	5035	
890-2379-2	PH01	Total/NA	Solid	5035	
890-2379-3	PH02	Total/NA	Solid	5035	
890-2379-4	PH02	Total/NA	Solid	5035	
890-2379-5	PH03	Total/NA	Solid	5035	
890-2379-6	PH03	Total/NA	Solid	5035	
890-2379-7	PH04	Total/NA	Solid	5035	
890-2379-8	PH04	Total/NA	Solid	5035	
MB 880-27017/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27017/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27017/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2374-A-5-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2374-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 27107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Total/NA	Solid	Total BTEX	
890-2379-2	PH01	Total/NA	Solid	Total BTEX	
890-2379-3	PH02	Total/NA	Solid	Total BTEX	
890-2379-4	PH02	Total/NA	Solid	Total BTEX	
890-2379-5	PH03	Total/NA	Solid	Total BTEX	
890-2379-6	PH03	Total/NA	Solid	Total BTEX	
890-2379-7	PH04	Total/NA	Solid	Total BTEX	
890-2379-8	PH04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 26955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Total/NA	Solid	8015B NM	26968

QC Association Summary

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

GC Semi VOA (Continued)

Analysis Batch: 26955 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-2	PH01	Total/NA	Solid	8015B NM	26968
890-2379-3	PH02	Total/NA	Solid	8015B NM	26968
890-2379-4	PH02	Total/NA	Solid	8015B NM	26968
890-2379-5	PH03	Total/NA	Solid	8015B NM	26968
890-2379-6	PH03	Total/NA	Solid	8015B NM	26968
890-2379-7	PH04	Total/NA	Solid	8015B NM	26968
890-2379-8	PH04	Total/NA	Solid	8015B NM	26968
MB 880-26968/1-A	Method Blank	Total/NA	Solid	8015B NM	26968
LCS 880-26968/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26968
LCSD 880-26968/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26968
890-2376-A-101-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26968
890-2376-A-101-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26968

Prep Batch: 26968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Total/NA	Solid	8015NM Prep	
890-2379-2	PH01	Total/NA	Solid	8015NM Prep	
890-2379-3	PH02	Total/NA	Solid	8015NM Prep	
890-2379-4	PH02	Total/NA	Solid	8015NM Prep	
890-2379-5	PH03	Total/NA	Solid	8015NM Prep	
890-2379-6	PH03	Total/NA	Solid	8015NM Prep	
890-2379-7	PH04	Total/NA	Solid	8015NM Prep	
890-2379-8	PH04	Total/NA	Solid	8015NM Prep	
MB 880-26968/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26968/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26968/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2376-A-101-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2376-A-101-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Total/NA	Solid	8015 NM	
890-2379-2	PH01	Total/NA	Solid	8015 NM	
890-2379-3	PH02	Total/NA	Solid	8015 NM	
890-2379-4	PH02	Total/NA	Solid	8015 NM	
890-2379-5	PH03	Total/NA	Solid	8015 NM	
890-2379-6	PH03	Total/NA	Solid	8015 NM	
890-2379-7	PH04	Total/NA	Solid	8015 NM	
890-2379-8	PH04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 27031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Soluble	Solid	DI Leach	
890-2379-2	PH01	Soluble	Solid	DI Leach	
890-2379-3	PH02	Soluble	Solid	DI Leach	
890-2379-4	PH02	Soluble	Solid	DI Leach	
890-2379-5	PH03	Soluble	Solid	DI Leach	
890-2379-6	PH03	Soluble	Solid	DI Leach	
890-2379-7	PH04	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

HPLC/IC (Continued)

Leach Batch: 27031 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-8	PH04	Soluble	Solid	DI Leach	
MB 880-27031/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27031/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27031/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15521-A-3-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15521-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 27217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2379-1	PH01	Soluble	Solid	300.0	27031
890-2379-2	PH01	Soluble	Solid	300.0	27031
890-2379-3	PH02	Soluble	Solid	300.0	27031
890-2379-4	PH02	Soluble	Solid	300.0	27031
890-2379-5	PH03	Soluble	Solid	300.0	27031
890-2379-6	PH03	Soluble	Solid	300.0	27031
890-2379-7	PH04	Soluble	Solid	300.0	27031
890-2379-8	PH04	Soluble	Solid	300.0	27031
MB 880-27031/1-A	Method Blank	Soluble	Solid	300.0	27031
LCS 880-27031/2-A	Lab Control Sample	Soluble	Solid	300.0	27031
LCSD 880-27031/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27031
880-15521-A-3-C MS	Matrix Spike	Soluble	Solid	300.0	27031
880-15521-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27031

Lab Chronicle

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH01

Date Collected: 06/03/22 09:35
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-1

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	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 06:05	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 17:57	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		10			27217	06/09/22 21:14	CH	XEN MID

Client Sample ID: PH01

Date Collected: 06/03/22 09:55
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-2

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	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 06:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 18:18	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		5			27217	06/09/22 21:37	CH	XEN MID

Client Sample ID: PH02

Date Collected: 06/03/22 10:30
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-3

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			5.02 g	5 mL	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 06:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 18:40	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		1			27217	06/10/22 11:36	CH	XEN MID

Client Sample ID: PH02

Date Collected: 06/03/22 12:25
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-4

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			5.00 g	5 mL	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 07:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH02

Date Collected: 06/03/22 12:25
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-4

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			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 19:02	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		1			27217	06/09/22 21:53	CH	XEN MID

Client Sample ID: PH03

Date Collected: 06/03/22 10:50
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-5

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			4.99 g	5 mL	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 07:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 19:24	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		5			27217	06/09/22 22:01	CH	XEN MID

Client Sample ID: PH03

Date Collected: 06/03/22 11:05
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 07:47	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 19:45	SM	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		1			27217	06/09/22 22:09	CH	XEN MID

Client Sample ID: PH04

Date Collected: 06/03/22 12:30
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-7

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	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 08:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 20:07	SM	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Client Sample ID: PH04
Date Collected: 06/03/22 12:30
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-7
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			5.01 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		5			27217	06/09/22 22:17	CH	XEN MID

Client Sample ID: PH04
Date Collected: 06/03/22 12:45
Date Received: 06/06/22 09:53

Lab Sample ID: 890-2379-8
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	27017	06/07/22 14:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 08:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27107	06/08/22 15:52	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27083	06/08/22 10:33	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26968	06/07/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26955	06/07/22 20:28	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	27031	06/07/22 16:03	SC	XEN MID
Soluble	Analysis	300.0		1			27217	06/10/22 07:56	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: ROW 3 Muy Wayno Line

Job ID: 890-2379-1
SDG: 03E1558023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2379-1	PH01	Solid	06/03/22 09:35	06/06/22 09:53	2
890-2379-2	PH01	Solid	06/03/22 09:55	06/06/22 09:53	4
890-2379-3	PH02	Solid	06/03/22 10:30	06/06/22 09:53	1
890-2379-4	PH02	Solid	06/03/22 12:25	06/06/22 09:53	4
890-2379-5	PH03	Solid	06/03/22 10:50	06/06/22 09:53	1
890-2379-6	PH03	Solid	06/03/22 11:05	06/06/22 09:53	4
890-2379-7	PH04	Solid	06/03/22 12:30	06/06/22 09:53	1
890-2379-8	PH04	Solid	06/03/22 12:45	06/06/22 09:53	4

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)	Adrian Baker
Company Name:	Ensolum LLC	Company Name:	XTO Energy, Inc.
Address:		Address:	3104 E. Green Street
City, State ZIP:		City, State ZIP:	Carlsbad, NM 88220
Phone:	817.683.2503	Email:	kjennings@ensolum.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:	ROW 3 Muy Wayno Line	**Turn Around**	
Project Number:	03E1558023	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	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:	THM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

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	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
PH01	s	06.03.22	935	2'	G	1		x	x	x	Incident ID:NAPP2209039217
PH01	s	06.03.22	955	4'	G	1		x	x	x	
PH02	s	06.03.22	1030	1'	G	1		x	x	x	Cost Center:
PH02	s	06.03.22	1225	4'	G	1		x	x	x	
PH03	s	06.03.22	1050	1'	G	1		x	x	x	AFE: DD.2017.01927.CAP.CMP.01
PH03	s	06.03.22	1105	4'	G	1		x	x	x	DD.2017.01933.CAP.CMP.01
PH04	s	06.03.22	1230	1'	G	1		x	x	x	
PH04	s	06.03.22	1245	4'	G	1		x	x	x	

890-2379 Chain of Custody

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		6.6.22 0957	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2379-1
SDG Number: 03E1558023

Login Number: 2379
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2379-1
SDG Number: 03E1558023

Login Number: 2379
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/07/22 12:08 PM

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

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Aimee Cole
To: Tacoma Morrissey; Kalei Jennings; Ben Belill
Subject: FW: XTO - Sampling Notification (week of 5/30/22 - 6/3/22)
Date: Wednesday, May 25, 2022 3:40:13 PM
Attachments: image001.png
image002.png
image003.png
image004.png

Submittal below for your records/attachment for reporting.
Thanks!

Aimee Cole
Senior Managing Scientist
720-384-7365
Ensolum, LLC

From: Baker, Adrian <adrian.baker@exxonmobil.com>
Sent: Wednesday, May 25, 2022 2:17 PM
To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Green, Garrett J <garrett.green@exxonmobil.com>; Aimee Cole <acole@ensolum.com>
Subject: XTO - Sampling Notification (week of 5/30/22 - 6/3/22)

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of May 30, 2022.

Tuesday, May 31st

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- BEU 5E Han Solo 114H / nAPP2209041753

Wednesday, June 1st

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- BEU 5E Han Solo 114H / nAPP2209041753

Thursday, June 2nd

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- Row 4 Muy Wayno Line / nAPP2209039217
- Pierce Canyon 3 SWD/ nAPP2209446613

Friday, June 3rd

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- Row 4 Muy Wayno Line / nAPP2209039217

Thank you,

Adrian Baker
Environmental Coordinator
Permian Business Unit

XTO Energy Inc.
6401 N. Holiday Hill Dr.
Midland, Tx 79707
Mobile:(432)-236-3808
adrian.baker@exxonmobil.com

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 118428

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 118428
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Composite confirmation samples will be collected from the bottom and sidewalls of the excavation from areas representing no more than four hundred (400) square feet.	8/25/2022