

|                |                |
|----------------|----------------|
| Incident ID    | NAPP2228753314 |
| District RP    |                |
| Facility ID    |                |
| Application ID |                |

## Closure

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

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

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

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

Printed Name: Garrett Green Title: SSHE Coordinator

Signature:  Date: 12/28/2022

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

**OCD Only**

Received by: Jocelyn Harimon Date: 12/29/2022

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

Closure Approved by: Robert Hamlet Date: 4/5/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

|                |                |
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## Release Notification

### Responsible Party

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

### Location of Release Source

Latitude 32.08042 Longitude -103.99242  
(NAD 83 in decimal degrees to 5 decimal places)

|                                    |                        |
|------------------------------------|------------------------|
| Site Name West Brushy Fed 33 1H    | Site Type Tank Battery |
| Date Release Discovered 10/01/2022 | API# (if applicable)   |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
| N           | 33      | 25S      | 29E   | Eddy   |

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

### Nature and Volume of Release

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

|                                                    |                                                                                          |                                                          |
|----------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Crude Oil                 | Volume Released (bbls)                                                                   | Volume Recovered (bbls)                                  |
| <input checked="" type="checkbox"/> Produced Water | Volume Released (bbls) 67.00                                                             | Volume Recovered (bbls) 00.25                            |
|                                                    | Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> Condensate                | Volume Released (bbls)                                                                   | Volume Recovered (bbls)                                  |
| <input type="checkbox"/> Natural Gas               | Volume Released (Mcf)                                                                    | Volume Recovered (Mcf)                                   |
| <input type="checkbox"/> Other (describe)          | Volume/Weight Released (provide units)                                                   | Volume/Weight Recovered (provide units)                  |

Cause of Release Corrosion caused a water tank to release produced water into impermeable containment and minimally to soil. Released fluid amounts were determined by tank gauges. A 48-hour advance liner inspection notice was sent to NMOCD District 2. No visible defects to liner were observed; however, XTO plans to delineate to determine extent and scope of release. A third-party contractor has been retained for remediation activities.

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|                                                                                                                                                                                                                                                                                             |                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                       | If YES, for what reason(s) does the responsible party consider this a major release?<br>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)?<br>Yes, by Melanie Collins to ocd.enviro@emnrd.nm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Nobui, Jennifer, EMNRD on 10/03/22 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*

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <input checked="" type="checkbox"/> The source of the release has been stopped.<br><input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.<br><input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.<br><input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.                                                                                                                                                                                                                                                                                               |                                |
| If all the actions described above have <u>not</u> been undertaken, explain why:<br>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: <u>Garrett Green</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Title: <u>SSHE Coordinator</u> |
| Signature: <u></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Date: <u>10/14/2022</u>        |
| email: <u>garrett.green@exxonmobil.com</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Telephone: <u>575-200-0729</u> |
| <b><u>OCD Only</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                |
| Received by: <u>Jocelyn Harimon</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Date: <u>10/14/2022</u>        |

**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 151025

**CONDITIONS**

|                                                                             |                                                           |
|-----------------------------------------------------------------------------|-----------------------------------------------------------|
| Operator:<br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:<br>5380                                            |
|                                                                             | Action Number:<br>151025                                  |
|                                                                             | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition                                                                                                                                                          | Condition Date |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| jharimon   | When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141 | 10/14/2022     |

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## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

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Printed Name: \_ Garrett Green \_\_\_\_\_ Title: \_ SSHE Coordinator \_\_\_\_\_

Signature:  \_\_\_\_\_ Date: \_ 12/28/2022 \_\_\_\_\_

email: \_ garrett.green@exxonmobil.com \_\_\_\_\_ Telephone: \_ 575-200-0729 \_\_\_\_\_

**OCD Only**

Received by: \_ Jocelyn Harimon \_\_\_\_\_ Date: \_ 12/29/2022 \_\_\_\_\_

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## Closure

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

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

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

Printed Name: Garrett Green Title: SSHE Coordinator

Signature:  Date: 12/28/2022

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

**OCD Only**

Received by: Jocelyn Harimon Date: 12/29/2022

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

Closure Approved by: Jocelyn Harimon Date: 12/29/2022

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



December 28, 2022

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Closure Request  
West Brushy Fed 33 1H & West Brushy Draw 33 #1 Battery  
Incident Numbers NAPP2228753314 & NAPP2232251876  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document site assessment, delineation, and soil sampling activities at the West Brushy Fed 33 1H and West Brushy Federal 33 #1 battery, which is co-located and collectively referred to as the "Site." The purpose of the soil sampling activities was to assess for the presence or absence of impacts to soil following two releases of produced water to a lined impermeable containment. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing activities that have occurred and requesting no further action for Incident Numbers NAPP2228753314 and NAPP2232251876.

## **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit N, Section 33, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.08042°N, 103.99242°W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On October 1, 2022, due to corrosion on a water tank 67 barrels (bbls) of produced water were released into the impermeable containment area. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; 0.25 bbls of released fluids were recovered. The release volume was estimated using tank gauge data. XTO reported the release immediately to New Mexico Oil Division (NMOCD) via email on October 3, 2022. A 48-hour liner inspection notification was submitted to the NMOCD and no visible defects to the liner were observed. XTO submitted a Release Notification Form C-141 (Form C-141) on October 14, 2022 and the release was assigned Incident Number NAPP2228753314.

On November 9, 2022, internal corrosion caused a pinhole on the water tank releasing 20 bbls of produced water into the impermeable containment. Approximately 1.5 bbls were recovered with a vacuum truck. XTO reported the release to NMOCD and submitted a Form C-141 on November 18, 2022. The release was assigned Incident Number NAPP2232251876. No liner inspection was conducted.

Because the entire contents of the releases were not recovered from the secondary containment, XTO proceeded with soil sampling to confirm the absence of soil impacts.



XTO Energy, Inc  
Closure Request  
West Brushy Fed 33 1H

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. On October 12, 2020, a soil boring (C-04473), permitted through the New Mexico Office of the State Engineer (NMOSE), was advanced on the well pad west of the Site. Soil boring C-04473 was drilled to a depth of 110 feet bgs. A field geologist logged and described soils continuously. Groundwater was not encountered during drilling activities, confirming that depth to groundwater beneath the Site is more than 100 feet bgs. The soil boring was plugged following the applicable NMOSE plugging and abandonment procedures. The soil boring used to determine depth to groundwater is depicted on Figure 1 and the Well Record is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a potential emergent wetland, located approximately 585 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

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

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

## SITE ASSESSMENT ACTIVITIES

On November 22, 2022, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four samples (SS01 through SS04) were collected around the lined containment from a depth of 0.5 feet bgs. Ensolum personnel advanced one borehole (BH01) via hand-auger at an accessible location. Two discrete delineation soil samples (BH01 and BH01A) were collected from the borehole at depths of approximately 0.5 feet and 1 foot bgs. Soil from the delineation samples was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the borehole were documented on a lithologic/soil sampling log, which is included as Appendix B. The borehole was backfilled with soil removed and the tear in the liner was repaired. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation is included in Appendix C.

XTO Energy, Inc  
Closure Request  
West Brushy Fed 33 1H

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they are collected may not have equilibrated to the 6 degrees Celcius required for shipment and long term storage, but are considered to have been received in acceptable condition.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples indicated that COC concentrations are compliant with the Closure Criteria and the strictest Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included in Appendix D.

## CLOSURE REQUEST

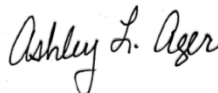
Site assessment and delineation activities were conducted at the Site to address two releases of produced water. Laboratory analytical results for delineation soil samples indicated all COCs concentrations were compliant with the Site Closure Criteria and the most stringent Closure Criteria. Based on the soil sample analytical results, no further remediation was required. As such, XTO respectfully requests closure for Incident Number NAPP2228753314 and NAPP2232251876. NMOCD notifications and correspondence is included in Appendix E.

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

Sincerely,  
**Ensolum, LLC**



Anita Thapalia, P.G.  
Project Geologist



Ashley L. Ager, P.G.  
Principal

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

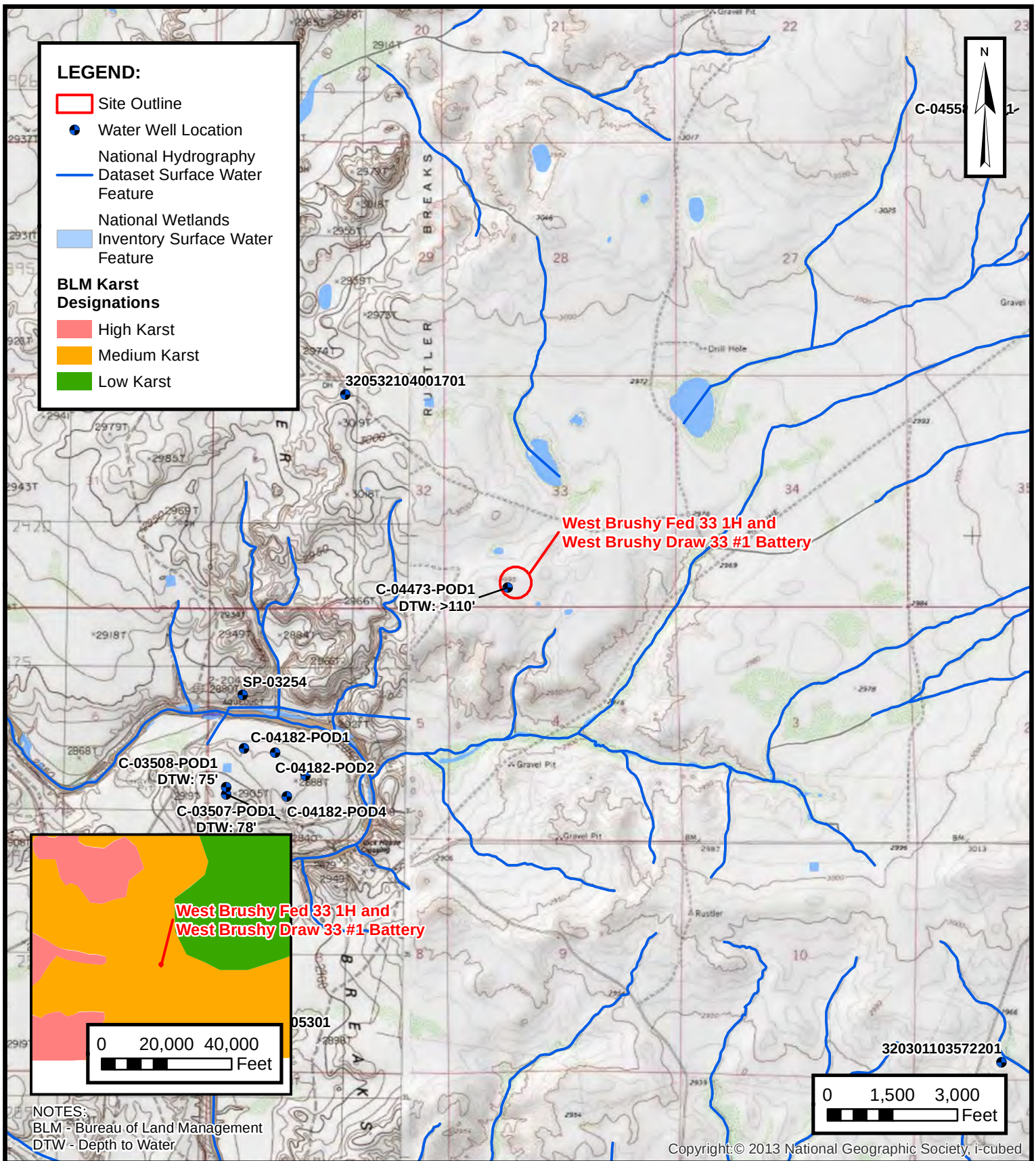
### Appendices:

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



FIGURES







**SOIL SAMPLE LOCATIONS**

XTO ENERGY, INC  
 WEST BRUSHY FED 33 1H &  
 WEST BRUSHY DRAW 33 #1 BATTERY  
 Incident Numbers NAPP2228753314 & NAPP2232251876  
 Unit N, Sec 33, T25S, R29E  
 Eddy County, New Mexico

**FIGURE****2**



TABLES



TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
West Brushy Fed 33 1H & West Brushy Draw 33 #1 Battery  
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           |
| Delineation Soil Samples                       |             |                         |                 |                    |                 |                 |                 |                 |                   |                  |
| BH01                                           | 11/22/2022  | 0.5'                    | <0.00201        | <0.00402           | <50.0           | <50.0           | <50.0           | <50.0           | <50.0             | 75.6             |
| BH01A                                          | 11/22/2022  | 1'                      | <0.00200        | <0.00399           | <50.0           | <50.0           | <50.0           | <50.0           | <50.0             | 288              |
| SS01                                           | 11/22/2022  | 0.5'                    | <0.00199        | <0.00398           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 291              |
| SS02                                           | 11/22/2022  | 0.5'                    | <0.00199        | <0.00398           | <50.0           | <50.0           | <50.0           | <50.0           | <50.0             | 24.2             |
| SS03                                           | 11/22/2022  | 0.5'                    | <0.00200        | <0.00399           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 260              |
| SS04                                           | 11/22/2022  | 0.5'                    | <0.00201        | <0.00402           | <50.0           | <50.0           | <50.0           | <50.0           | <50.0             | 255              |

Notes:

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

GRO: Gasoline Range Organics  
DRO: Diesel Range Organics  
ORO: Oil Range Organics  
TPH: Total Petroleum Hydrocarbon  
NMAC: New Mexico Administrative Code



## APPENDIX A

### Referenced Well Records

---



2020 OCT 27 PM 1:08

OFFICE OF THE STATE ENGINEER  
1000 N. GILBERT AVENUE  
ALBUQUERQUE, NM 87102

# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

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

|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------|--------------------------|
| 1. GENERAL AND WELL LOCATION                                                                                                                              | OSE POD NO. (WELL NO.)<br>POD1 (BH-01)                                                                                                                                                      |                            | WELL TAG ID NO.<br>n/a                                  |                                                                                                 | OSE FILE NO(S).<br>C-4473                               |                                                                      |                                      |                          |
|                                                                                                                                                           | WELL OWNER NAME(S)<br>XTO Energy (Kyle Littrell)                                                                                                                                            |                            |                                                         |                                                                                                 | PHONE (OPTIONAL)                                        |                                                                      |                                      |                          |
|                                                                                                                                                           | WELL OWNER MAILING ADDRESS<br>6401 Holiday Hill Dr.                                                                                                                                         |                            |                                                         |                                                                                                 | CITY<br>Midland                                         | STATE<br>TX                                                          | ZIP<br>79707                         |                          |
|                                                                                                                                                           | WELL LOCATION<br>(FROM GPS)                                                                                                                                                                 | DEGREES<br>LATITUDE<br>32° | MINUTES<br>4'                                           | SECONDS<br>48.72" N                                                                             | * ACCURACY REQUIRED: ONE TENTH OF A SECOND              |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             | LONGITUDE<br>-103°         | 59'                                                     | 35.46" W                                                                                        | * DATUM REQUIRED: WGS 84                                |                                                                      |                                      |                          |
| DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE<br>SW SE SW Sec. 33 T25S R29E |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
| 2. DRILLING & CASING INFORMATION                                                                                                                          | LICENSE NO.<br>1249                                                                                                                                                                         |                            | NAME OF LICENSED DRILLER<br>Jackie D. Atkins            |                                                                                                 |                                                         | NAME OF WELL DRILLING COMPANY<br>Atkins Engineering Associates, Inc. |                                      |                          |
|                                                                                                                                                           | DRILLING STARTED<br>10/12/20                                                                                                                                                                | DRILLING ENDED<br>10/12/20 | DEPTH OF COMPLETED WELL (FT)<br>temporary well material |                                                                                                 | BORE HOLE DEPTH (FT)<br>110                             | DEPTH WATER FIRST ENCOUNTERED (FT)<br>n/a                            |                                      |                          |
|                                                                                                                                                           | COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)                                             |                            |                                                         |                                                                                                 |                                                         | STATIC WATER LEVEL IN COMPLETED WELL (FT)<br>n/a                     |                                      |                          |
|                                                                                                                                                           | DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:                                                                                   |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           | DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           | DEPTH (feet bgl)                                                                                                                                                                            |                            | BORE HOLE<br>DIAM.<br>(inches)                          | CASING MATERIAL AND/OR<br>GRADE<br>(include each casing string, and<br>note sections of screen) | CASING<br>CONNECTION<br>TYPE<br>(add coupling diameter) | CASING<br>INSIDE DIAM.<br>(inches)                                   | CASING WALL<br>THICKNESS<br>(inches) | SLOT<br>SIZE<br>(inches) |
|                                                                                                                                                           | FROM                                                                                                                                                                                        | TO                         |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           | 0                                                                                                                                                                                           | 25                         | ±8.5                                                    | Boring- HSA                                                                                     | --                                                      | --                                                                   | --                                   | --                       |
|                                                                                                                                                           | 25                                                                                                                                                                                          | 55                         | ±4.5                                                    | Boring- Air Rotary                                                                              | --                                                      | --                                                                   | --                                   | --                       |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
| 3. ANNULAR MATERIAL                                                                                                                                       | DEPTH (feet bgl)                                                                                                                                                                            |                            | BORE HOLE<br>DIAM. (inches)                             | LIST ANNULAR SEAL MATERIAL AND<br>GRAVEL PACK SIZE-RANGE BY INTERVAL                            | AMOUNT<br>(cubic feet)                                  | METHOD OF<br>PLACEMENT                                               |                                      |                          |
|                                                                                                                                                           | FROM                                                                                                                                                                                        | TO                         |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |
|                                                                                                                                                           |                                                                                                                                                                                             |                            |                                                         |                                                                                                 |                                                         |                                                                      |                                      |                          |

FOR OSE INTERNAL USE

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

|                               |                    |                |
|-------------------------------|--------------------|----------------|
| FILE NO. C-4473               | POD NO. 1          | TRN NO. 677406 |
| LOCATION 433 T25S R29E Sec 33 | WELL TAG ID NO. NA | PAGE 1 OF 2    |

## 1. HYDROGEOLOGIC LOG OF WELL

## 5. TEST; RIG SUPERVISION

## 6. SIGNATURE

|                             |                     |                                              |             |
|-----------------------------|---------------------|----------------------------------------------|-------------|
| FOR OSE INTERNAL USE        |                     | WR-20 WELL RECORD & LOG (Version 06/30/2017) |             |
| FILE NO. C-4473             | POD NO. 1           | TRN NO. 677406                               |             |
| LOCATION 433 T25S R29E S.33 | WELL TAG ID NO. 1/A |                                              | PAGE 2 OF 2 |

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



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 677406  
File Nbr: C 04473  
Well File Nbr: C 04473 POD1

Nov. 18, 2020

TACOMA MORRISSEY  
LT ENVIRONMENTAL INC  
508 WEST STEVENS  
CARLSBAD, NM 88220

Greetings:

The above numbered permit was issued in your name on 09/02/2020.

The Well Record was received in this office on 10/29/2020, stating that it had been completed on 10/12/2020, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 09/02/2021.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Dennis", with a long horizontal line extending to the right.

Andrew Dennis  
(575) 622-6521

drywell

# 2020-10-26\_C-4473POD1\_OSE\_Well Record and Log-wb-forsign

Final Audit Report

2020-10-27

|                 |                                              |
|-----------------|----------------------------------------------|
| Created:        | 2020-10-27                                   |
| By:             | Lucas Middleton (lucas@atkinseng.com)        |
| Status:         | Signed                                       |
| Transaction ID: | CBJCHBCAABAA_fnD1AtNBjHgBc1H0ehIMQdoVvHLvFdG |

## "2020-10-26\_C-4473POD1\_OSE\_Well Record and Log-wb-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)  
2020-10-27 - 3:12:46 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature  
2020-10-27 - 3:13:15 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)  
2020-10-27 - 3:13:54 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)  
Signature Date: 2020-10-27 - 3:17:09 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.  
2020-10-27 - 3:17:09 PM GMT

2020 OCT 27 PM 1:08

STATE ENGINEER OFFICE  
HOUSTON, TEXAS 77002



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## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Site Information ▼

Geographic Area:

United States ▼

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- **ALERT!** USGS will be performing an upgrade to their network on **Thursday, November 17, 2022, starting at 10:00pm EST**. During the maintenance period, the Water Data for the Nation web portal and water services will be accessible; however, delivery of the most recent time-series data and WaterAlert notifications will be disrupted. The maintenance period is not expected to exceed 4 hours, after which the backlog of time-series data will be processed and delivered.
- [Water Data for the Nation Blog](#)

## USGS 320532104001701 25S.29E.32.21111

Available data for this site

SUMMARY OF ALL AVAILABLE DATA ▼

GO

### Well Site

#### DESCRIPTION:

Latitude 32°05'32", Longitude 104°00'17" NAD27  
Eddy County, New Mexico , Hydrologic Unit 13060011  
Well depth: 128 feet  
Land surface altitude: 2,988 feet above NAVD88.  
Well completed in "Other aquifers" (N9999OTHER) national aquifer.  
Well completed in "Rustler Formation" (312RSLR) local aquifer

#### AVAILABLE DATA:

| Data Type                                            | Begin Date | End Date   | Count |
|------------------------------------------------------|------------|------------|-------|
| <a href="#">Field groundwater-level measurements</a> | 1949-03-11 | 1992-11-03 | 8     |

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

---

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**Title: NWIS Site Information for USA: Site Inventory**

**URL: [https://waterdata.usgs.gov/nwis/inventory?agency\\_code=USGS&site\\_no=320532104001701](https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320532104001701)**



Page Contact Information: [New Mexico Water Data Support Team](#)

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0.29 0.28 caww01





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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

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Geographic Area:

United States

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- **ALERT!** USGS will be performing an upgrade to their network on **Thursday, November 17, 2022, starting at 10:00pm EST**. During the maintenance period, the Water Data for the Nation web portal and water services will be accessible; however, delivery of the most recent time-series data and WaterAlert notifications will be disrupted. The maintenance period is not expected to exceed 4 hours, after which the backlog of time-series data will be processed and delivered.
- [Water Data for the Nation Blog](#)

Groundwater levels for the Nation

**1** Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 320532104001701

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 320532104001701 25S.29E.32.21111

Eddy County, New Mexico  
Latitude 32°05'32", Longitude 104°00'17" NAD27  
Land-surface elevation 2,988 feet above NAVD88  
The depth of the well is 128 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

|                                    |
|------------------------------------|
| <a href="#">Table of data</a>      |
| <a href="#">Tab-separated data</a> |
| <a href="#">Graph of data</a>      |
| <a href="#">Reselect period</a>    |

| Date       | Time | ?<br>Water-level<br>date-time<br>accuracy | ?<br>Parameter<br>code | Water<br>level,<br>feet<br>below<br>land<br>surface | Water<br>level,<br>feet<br>above<br>specific<br>vertical<br>datum | Referenced<br>vertical<br>datum | ?<br>Status | ?<br>Method of<br>measurement | ?<br>Measuring<br>agency | ?<br>Source of<br>measurement | ?<br>Water-level<br>approval<br>status |
|------------|------|-------------------------------------------|------------------------|-----------------------------------------------------|-------------------------------------------------------------------|---------------------------------|-------------|-------------------------------|--------------------------|-------------------------------|----------------------------------------|
|            |      |                                           |                        |                                                     |                                                                   |                                 |             |                               |                          |                               |                                        |
| 1949-03-11 |      |                                           | D                      | 62610                                               | 2871.10                                                           | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1949-03-11 |      |                                           | D                      | 62611                                               | 2872.66                                                           | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1949-03-11 |      |                                           | D                      | 72019                                               | 115.34                                                            |                                 | 1           | Z                             |                          |                               | A                                      |
| 1958-08-19 |      |                                           | D                      | 62610                                               | 2887.81                                                           | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1958-08-19 |      |                                           | D                      | 62611                                               | 2889.37                                                           | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1958-08-19 |      |                                           | D                      | 72019                                               | 98.63                                                             |                                 | 1           | Z                             |                          |                               | A                                      |
| 1959-03-24 |      |                                           | D                      | 62610                                               | 2887.84                                                           | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1959-03-24 |      |                                           | D                      | 62611                                               | 2889.40                                                           | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1959-03-24 |      |                                           | D                      | 72019                                               | 98.60                                                             |                                 | 1           | Z                             |                          |                               | A                                      |
| 1978-01-13 |      |                                           | D                      | 62610                                               | 2891.21                                                           | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1978-01-13 |      |                                           | D                      | 62611                                               | 2892.77                                                           | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1978-01-13 |      |                                           | D                      | 72019                                               | 95.23                                                             |                                 | 1           | Z                             |                          |                               | A                                      |
| 1983-02-01 |      |                                           | D                      | 62610                                               | 2890.81                                                           | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1983-02-01 |      |                                           | D                      | 62611                                               | 2892.37                                                           | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1983-02-01 |      |                                           | D                      | 72019                                               | 95.63                                                             |                                 | 1           | Z                             |                          |                               | A                                      |
| 1987-10-14 |      |                                           | D                      | 62610                                               | 2889.75                                                           | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1987-10-14 |      |                                           | D                      | 62611                                               | 2891.31                                                           | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1987-10-14 |      |                                           | D                      | 72019                                               | 96.69                                                             |                                 | 1           | Z                             |                          |                               | A                                      |
| 1988-04-06 |      |                                           | D                      | 62610                                               | 2889.51                                                           | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1988-04-06 |      |                                           | D                      | 62611                                               | 2891.07                                                           | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1988-04-06 |      |                                           | D                      | 72019                                               | 96.93                                                             |                                 | 1           | Z                             |                          |                               | A                                      |
| 1992-11-03 |      |                                           | D                      | 62610                                               | 2888.31                                                           | NGVD29                          | 1           | S                             |                          |                               | A                                      |
| 1992-11-03 |      |                                           | D                      | 62611                                               | 2889.87                                                           | NAVD88                          | 1           | S                             |                          |                               | A                                      |
| 1992-11-03 |      |                                           | D                      | 72019                                               | 98.13                                                             |                                 | 1           | S                             |                          |                               | A                                      |

| 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 |

| Section                     | Code   | Description                                                  |
|-----------------------------|--------|--------------------------------------------------------------|
| 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       | Z      | Other.                                                       |
| Measuring agency            |        | Not determined                                               |
| Source of measurement       |        | Not determined                                               |
| Water-level approval status | A      | Approved for publication -- Processing and review completed. |

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

Page Contact Information: [USGS Water Data Support Team](#)

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0.29 0.25 nadww01





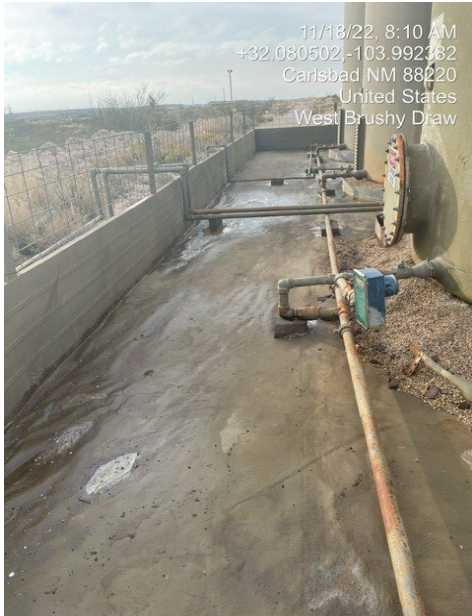
## APPENDIX B

### Photographic Log

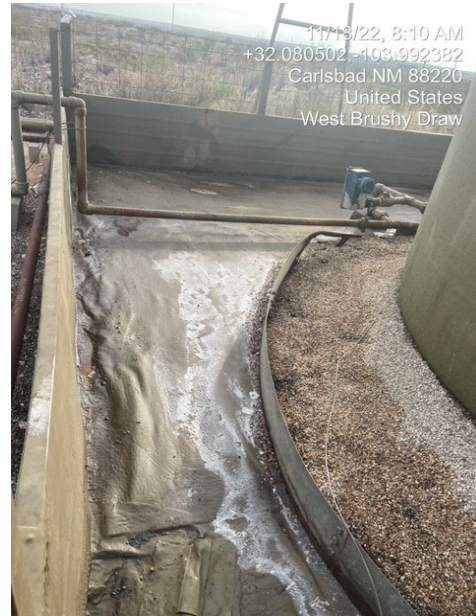
---

**Photographic Log**

XTO Energy, Inc.

West Brushy Fed 33 1H &  
West Brushy Draw 33 #1 BatteryIncident Numbers NAPP2228753314 &  
NAPP2232251876

Photograph: 1                      Date: 11/18/2022  
Description: Photo of initial assessment activities.  
View: South



Photograph: 2                      Date: 11/18/2022  
Description: Photo of initial assessment activities.  
View: East



Photograph: 3                      Date: 11/22/2022  
Description: Photo of linear delineation activities.  
View: South



Photograph: 4                      Date: 11/22/2022  
Description: Photo of linear delineation activities.  
View: N/A



## APPENDIX C

### Laboratory Analytical Reports & Chain of Custody Documentation

---





Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Tacoma Morrissey  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 12/2/2022 3:58:07 PM

## JOB DESCRIPTION

West Brushy Fed 331H  
SDG NUMBER 03E1558141

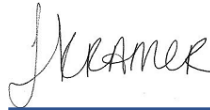
## JOB NUMBER

890-3549-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

**Eurofins Carlsbad****Job Notes**

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

**Authorization**

Generated  
12/2/2022 3:58:07 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Laboratory Job ID: 890-3549-1  
SDG: 03E1558141

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## Definitions/Glossary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

**Job ID: 890-3549-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-3549-1****Receipt**

The samples were received on 11/22/2022 1:47 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 1.4°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: BH01 (890-3549-1), BH01A (890-3549-2), SS01 (890-3549-3), SS02 (890-3549-4), SS03 (890-3549-5) and SS04 (890-3549-6).

**GC VOA**

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-40625 and analytical batch 880-40842 was outside the control 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 laboratory control sample (LCS) associated with preparation batch 880-40543 and analytical batch 880-40551 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40386 and analytical batch 880-40550 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. The associated samples are: SS03 (890-3549-5), SS04 (890-3549-6), (880-21878-A-1-B), (880-21878-A-1-C MS) and (880-21878-A-1-D MSD).

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: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Client Sample ID: BH01

Lab Sample ID: 890-3549-1

Date Collected: 11/22/22 10:30

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:11 | 1       |
| Toluene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:11 | 1       |
| Ethylbenzene        | <0.00201 | U         | 0.00201 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:11 | 1       |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.00402 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:11 | 1       |
| o-Xylene            | <0.00201 | U         | 0.00201 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:11 | 1       |
| Xylenes, Total      | <0.00402 | U         | 0.00402 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:11 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 105       |           | 70 - 130 | 11/29/22 16:02 | 12/02/22 12:11 | 1       |
| 1,4-Difluorobenzene (Surr)  | 95        |           | 70 - 130 | 11/29/22 16:02 | 12/02/22 12:11 | 1       |

## Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00402 | U         | 0.00402 | mg/Kg |   |          | 12/02/22 16:23 | 1       |

## Method: SW846 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 |   |          | 11/30/22 15:50 | 1       |

## Method: SW846 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 |   | 11/29/22 08:34 | 11/29/22 23:58 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0  | U         | 50.0 | mg/Kg |   | 11/29/22 08:34 | 11/29/22 23:58 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0  | U         | 50.0 | mg/Kg |   | 11/29/22 08:34 | 11/29/22 23:58 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 116       |           | 70 - 130 | 11/29/22 08:34 | 11/29/22 23:58 | 1       |
| o-Terphenyl    | 131       | S1+       | 70 - 130 | 11/29/22 08:34 | 11/29/22 23:58 | 1       |

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

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 75.6   |           | 4.96 | mg/Kg |   |          | 11/28/22 23:08 | 1       |

Client Sample ID: BH01A

Lab Sample ID: 890-3549-2

Date Collected: 11/22/22 11:10

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:37 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:37 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:37 | 1       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.00399 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:37 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:37 | 1       |
| Xylenes, Total      | <0.00399 | U         | 0.00399 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 12:37 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 101       |           | 70 - 130 | 11/29/22 16:02 | 12/02/22 12:37 | 1       |

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## Client Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Client Sample ID: BH01A

Lab Sample ID: 890-3549-2

Date Collected: 11/22/22 11:10

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 101       |           | 70 - 130 | 11/29/22 16:02 | 12/02/22 12:37 | 1       |

## Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 12/02/22 16:23 | 1       |

## Method: SW846 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 |   |          | 11/30/22 15:50 | 1       |

## Method: SW846 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 |   | 11/29/22 08:34 | 11/30/22 00:23 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U         | 50.0     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 00:23 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0     | U         | 50.0     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 00:23 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 103       |           | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 00:23 | 1       |
| o-Terphenyl                          | 102       |           | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 00:23 | 1       |

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

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 288    |           | 5.05 | mg/Kg |   |          | 11/28/22 23:15 | 1       |

Client Sample ID: SS01

Lab Sample ID: 890-3549-3

Date Collected: 11/22/22 11:15

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:04 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:04 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:04 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:04 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:04 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:04 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 105       |           | 70 - 130 | 11/29/22 16:02 | 12/02/22 13:04 | 1       |
| 1,4-Difluorobenzene (Surr)  | 87        |           | 70 - 130 | 11/29/22 16:02 | 12/02/22 13:04 | 1       |

## Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 12/02/22 16:23 | 1       |

## Method: SW846 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 |   |          | 11/30/22 15:50 | 1       |

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## Client Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Client Sample ID: SS01

Lab Sample ID: 890-3549-3

Date Collected: 11/22/22 11:15

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 0.5'

## Method: SW846 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 |   | 11/29/22 08:34 | 11/30/22 00:47 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9     | U         | 49.9     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 00:47 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9     | U         | 49.9     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 00:47 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 102       |           | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 00:47 | 1       |
| o-Terphenyl                          | 99        |           | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 00:47 | 1       |

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

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 291    |           | 24.9 | mg/Kg |   |          | 11/28/22 23:22 | 5       |

Client Sample ID: SS02

Lab Sample ID: 890-3549-4

Date Collected: 11/22/22 11:30

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00199  | U         | 0.00199  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |
| Toluene                     | <0.00199  | U         | 0.00199  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |
| Ethylbenzene                | <0.00199  | U         | 0.00199  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |
| m-Xylene & p-Xylene         | <0.00398  | U         | 0.00398  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |
| o-Xylene                    | <0.00199  | U         | 0.00199  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |
| Xylenes, Total              | <0.00398  | U         | 0.00398  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 121       |           | 70 - 130 |       |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |
| 1,4-Difluorobenzene (Surr)  | 99        |           | 70 - 130 |       |   | 11/29/22 16:02 | 12/02/22 13:30 | 1       |

## Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 12/02/22 16:23 | 1       |

## Method: SW846 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 |   |          | 11/30/22 15:50 | 1       |

## Method: SW846 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 |   | 11/29/22 08:34 | 11/30/22 01:13 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U         | 50.0     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 01:13 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0     | U         | 50.0     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 01:13 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 23        | S1-       | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 01:13 | 1       |
| o-Terphenyl                          | 18        | S1-       | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 01:13 | 1       |

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## Client Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Client Sample ID: SS02

Lab Sample ID: 890-3549-4

Date Collected: 11/22/22 11:30

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 0.5'

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

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 24.2   |           | 5.00 | mg/Kg |   |          | 11/28/22 23:28 | 1       |

Client Sample ID: SS03

Lab Sample ID: 890-3549-5

Date Collected: 11/22/22 11:45

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00200  | U         | 0.00200  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |
| Toluene                     | <0.00200  | U         | 0.00200  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |
| Ethylbenzene                | <0.00200  | U         | 0.00200  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |
| m-Xylene & p-Xylene         | <0.00399  | U         | 0.00399  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |
| o-Xylene                    | <0.00200  | U         | 0.00200  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |
| Xylenes, Total              | <0.00399  | U         | 0.00399  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 110       |           | 70 - 130 |       |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |
| 1,4-Difluorobenzene (Surr)  | 94        |           | 70 - 130 |       |   | 11/29/22 16:02 | 12/02/22 13:56 | 1       |

## Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 12/02/22 16:23 | 1       |

## Method: SW846 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 |   |          | 11/30/22 15:50 | 1       |

## Method: SW846 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 |   | 11/29/22 08:34 | 11/30/22 01:37 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9     | U         | 49.9     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 01:37 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9     | U         | 49.9     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 01:37 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 127       |           | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 01:37 | 1       |
| o-Terphenyl                          | 144       | S1+       | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 01:37 | 1       |

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

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 260    |           | 24.9 | mg/Kg |   |          | 11/29/22 10:57 | 5       |

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## Client Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Client Sample ID: SS04

Lab Sample ID: 890-3549-6

Date Collected: 11/22/22 12:00

Matrix: Solid

Date Received: 11/22/22 13:47

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00201  | U         | 0.00201  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |
| Toluene                     | <0.00201  | U         | 0.00201  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |
| Ethylbenzene                | <0.00201  | U         | 0.00201  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |
| m-Xylene & p-Xylene         | <0.00402  | U         | 0.00402  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |
| o-Xylene                    | <0.00201  | U         | 0.00201  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |
| Xylenes, Total              | <0.00402  | U         | 0.00402  | mg/Kg |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 115       |           | 70 - 130 |       |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |
| 1,4-Difluorobenzene (Surr)  | 94        |           | 70 - 130 |       |   | 11/29/22 16:02 | 12/02/22 14:22 | 1       |

## Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00402 | U         | 0.00402 | mg/Kg |   |          | 12/02/22 16:23 | 1       |

## Method: SW846 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 |   |          | 11/30/22 15:50 | 1       |

## Method: SW846 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 |   | 11/29/22 08:34 | 11/30/22 02:02 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U         | 50.0     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 02:02 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0     | U         | 50.0     | mg/Kg |   | 11/29/22 08:34 | 11/30/22 02:02 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 54        | S1-       | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 02:02 | 1       |
| o-Terphenyl                          | 54        | S1-       | 70 - 130 |       |   | 11/29/22 08:34 | 11/30/22 02:02 | 1       |

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

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 255    |           | 24.8 | mg/Kg |   |          | 11/29/22 11:05 | 5       |

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## Surrogate Summary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

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

Matrix: Solid

Prep Type: Total/NA

|                                   |                        | Percent Surrogate Recovery (Acceptance Limits) |                   |
|-----------------------------------|------------------------|------------------------------------------------|-------------------|
| Lab Sample ID                     | Client Sample ID       | BFB1<br>(70-130)                               | DFBZ1<br>(70-130) |
| 890-3549-1                        | BH01                   | 105                                            | 95                |
| 890-3549-1 MS                     | BH01                   | 114                                            | 102               |
| 890-3549-1 MSD                    | BH01                   | 104                                            | 101               |
| 890-3549-2                        | BH01A                  | 101                                            | 101               |
| 890-3549-3                        | SS01                   | 105                                            | 87                |
| 890-3549-4                        | SS02                   | 121                                            | 99                |
| 890-3549-5                        | SS03                   | 110                                            | 94                |
| 890-3549-6                        | SS04                   | 115                                            | 94                |
| LCS 880-40625/1-A                 | Lab Control Sample     | 105                                            | 100               |
| LCSD 880-40625/2-A                | Lab Control Sample Dup | 104                                            | 97                |
| MB 880-40625/5-A                  | Method Blank           | 68 S1-                                         | 94                |
| <b>Surrogate Legend</b>           |                        |                                                |                   |
| BFB = 4-Bromofluorobenzene (Surr) |                        |                                                |                   |
| DFBZ = 1,4-Difluorobenzene (Surr) |                        |                                                |                   |

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

Matrix: Solid

Prep Type: Total/NA

|                         |                        | Percent Surrogate Recovery (Acceptance Limits) |                   |
|-------------------------|------------------------|------------------------------------------------|-------------------|
| Lab Sample ID           | Client Sample ID       | 1CO1<br>(70-130)                               | OTPH1<br>(70-130) |
| 880-21910-A-1-C MS      | Matrix Spike           | 106                                            | 119               |
| 880-21910-A-1-D MSD     | Matrix Spike Duplicate | 117                                            | 120               |
| 890-3549-1              | BH01                   | 116                                            | 131 S1+           |
| 890-3549-2              | BH01A                  | 103                                            | 102               |
| 890-3549-3              | SS01                   | 102                                            | 99                |
| 890-3549-4              | SS02                   | 23 S1-                                         | 18 S1-            |
| 890-3549-5              | SS03                   | 127                                            | 144 S1+           |
| 890-3549-6              | SS04                   | 54 S1-                                         | 54 S1-            |
| LCS 880-40543/2-A       | Lab Control Sample     | 139 S1+                                        | 155 S1+           |
| LCSD 880-40543/3-A      | Lab Control Sample Dup | 131 S1+                                        | 158 S1+           |
| MB 880-40543/1-A        | Method Blank           | 133 S1+                                        | 171 S1+           |
| <b>Surrogate Legend</b> |                        |                                                |                   |
| 1CO = 1-Chlorooctane    |                        |                                                |                   |
| OTPH = o-Terphenyl      |                        |                                                |                   |

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## QC Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

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

Lab Sample ID: MB 880-40625/5-A

Matrix: Solid

Analysis Batch: 40842

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40625

| Analyte             | MB Result | MB Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|--------------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 11:45 | 1       |
| Toluene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 11:45 | 1       |
| Ethylbenzene        | <0.00200  | U            | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 11:45 | 1       |
| m-Xylene & p-Xylene | <0.00400  | U            | 0.00400 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 11:45 | 1       |
| o-Xylene            | <0.00200  | U            | 0.00200 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 11:45 | 1       |
| Xylenes, Total      | <0.00400  | U            | 0.00400 | mg/Kg |   | 11/29/22 16:02 | 12/02/22 11:45 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 68           | S1-          | 70 - 130 | 11/29/22 16:02 | 12/02/22 11:45 | 1       |
| 1,4-Difluorobenzene (Surr)  | 94           |              | 70 - 130 | 11/29/22 16:02 | 12/02/22 11:45 | 1       |

Lab Sample ID: LCS 880-40625/1-A

Matrix: Solid

Analysis Batch: 40842

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40625

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|-------|---|------|-------------|
| Benzene             | 0.100       | 0.1252     |               | mg/Kg |   | 125  | 70 - 130    |
| Toluene             | 0.100       | 0.1206     |               | mg/Kg |   | 121  | 70 - 130    |
| Ethylbenzene        | 0.100       | 0.1093     |               | mg/Kg |   | 109  | 70 - 130    |
| m-Xylene & p-Xylene | 0.200       | 0.2198     |               | mg/Kg |   | 110  | 70 - 130    |
| o-Xylene            | 0.100       | 0.1069     |               | mg/Kg |   | 107  | 70 - 130    |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 105           |               | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 100           |               | 70 - 130 |

Lab Sample ID: LCSD 880-40625/2-A

Matrix: Solid

Analysis Batch: 40842

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 40625

| Analyte             | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-----------|
| Benzene             | 0.100       | 0.1186      |                | mg/Kg |   | 119  | 70 - 130    | 5   | 35        |
| Toluene             | 0.100       | 0.1151      |                | mg/Kg |   | 115  | 70 - 130    | 5   | 35        |
| Ethylbenzene        | 0.100       | 0.1044      |                | mg/Kg |   | 104  | 70 - 130    | 5   | 35        |
| m-Xylene & p-Xylene | 0.200       | 0.2094      |                | mg/Kg |   | 105  | 70 - 130    | 5   | 35        |
| o-Xylene            | 0.100       | 0.1069      |                | mg/Kg |   | 107  | 70 - 130    | 0   | 35        |

| Surrogate                   | LCSD %Recovery | LCSD Qualifier | Limits   |
|-----------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene (Surr) | 104            |                | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 97             |                | 70 - 130 |

Lab Sample ID: 890-3549-1 MS

Matrix: Solid

Analysis Batch: 40842

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 40625

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Benzene | <0.00201      | U                | 0.0996      | 0.1021    |              | mg/Kg |   | 103  | 70 - 130    |
| Toluene | <0.00201      | U                | 0.0996      | 0.1062    |              | mg/Kg |   | 107  | 70 - 130    |

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## QC Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

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

Lab Sample ID: 890-3549-1 MS

Matrix: Solid

Analysis Batch: 40842

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 40625

| Analyte             | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Ethylbenzene        | <0.00201      | U                | 0.0996      | 0.1009    |              | mg/Kg |   | 101  | 70 - 130    |
| m-Xylene & p-Xylene | <0.00402      | U                | 0.199       | 0.2022    |              | mg/Kg |   | 101  | 70 - 130    |
| o-Xylene            | <0.00201      | U                | 0.0996      | 0.1035    |              | mg/Kg |   | 104  | 70 - 130    |

| Surrogate                   | MS %Recovery | MS Qualifier | MS Limits |
|-----------------------------|--------------|--------------|-----------|
| 4-Bromofluorobenzene (Surr) | 114          |              | 70 - 130  |
| 1,4-Difluorobenzene (Surr)  | 102          |              | 70 - 130  |

Lab Sample ID: 890-3549-1 MSD

Matrix: Solid

Analysis Batch: 40842

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 40625

| Analyte             | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Benzene             | <0.00201      | U                | 0.0990      | 0.09136    |               | mg/Kg |   | 92   | 70 - 130    | 11  | 35        |
| Toluene             | <0.00201      | U                | 0.0990      | 0.09165    |               | mg/Kg |   | 93   | 70 - 130    | 15  | 35        |
| Ethylbenzene        | <0.00201      | U                | 0.0990      | 0.08677    |               | mg/Kg |   | 88   | 70 - 130    | 15  | 35        |
| m-Xylene & p-Xylene | <0.00402      | U                | 0.198       | 0.1732     |               | mg/Kg |   | 87   | 70 - 130    | 15  | 35        |
| o-Xylene            | <0.00201      | U                | 0.0990      | 0.08889    |               | mg/Kg |   | 90   | 70 - 130    | 15  | 35        |

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

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

Lab Sample ID: MB 880-40543/1-A

Matrix: Solid

Analysis Batch: 40551

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40543

| 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 |   | 11/29/22 08:34 | 11/29/22 15:35 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U            | 50.0 | mg/Kg |   | 11/29/22 08:34 | 11/29/22 15:35 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0     | U            | 50.0 | mg/Kg |   | 11/29/22 08:34 | 11/29/22 15:35 | 1       |

| Surrogate      | MB %Recovery | MB Qualifier | MB Limits | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|--------------|-----------|----------------|----------------|---------|
| 1-Chlorooctane | 133          | S1+          | 70 - 130  | 11/29/22 08:34 | 11/29/22 15:35 | 1       |
| o-Terphenyl    | 171          | S1+          | 70 - 130  | 11/29/22 08:34 | 11/29/22 15:35 | 1       |

Lab Sample ID: LCS 880-40543/2-A

Matrix: Solid

Analysis Batch: 40551

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40543

| Analyte                              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|-------------|------------|---------------|-------|---|------|-------------|
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 621.1      | *-            | mg/Kg |   | 62   | 70 - 130    |
| Diesel Range Organics (Over C10-C28) | 1000        | 1084       |               | mg/Kg |   | 108  | 70 - 130    |

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## QC Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

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

Lab Sample ID: LCS 880-40543/2-A

Matrix: Solid

Analysis Batch: 40551

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40543

|                | LCS       | LCS       |          |
|----------------|-----------|-----------|----------|
| Surrogate      | %Recovery | Qualifier | Limits   |
| 1-Chlorooctane | 139       | S1+       | 70 - 130 |
| o-Terphenyl    | 155       | S1+       | 70 - 130 |

Lab Sample ID: LCSD 880-40543/3-A

Matrix: Solid

Analysis Batch: 40551

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 40543

| Analyte                              | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-----------|
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 737.1       |                | mg/Kg |   | 74   | 70 - 130    | 17  | 20        |
| Diesel Range Organics (Over C10-C28) | 1000        | 1125        |                | mg/Kg |   | 113  | 70 - 130    | 4   | 20        |

|                | LCSD      | LCSD      |          |
|----------------|-----------|-----------|----------|
| Surrogate      | %Recovery | Qualifier | Limits   |
| 1-Chlorooctane | 131       | S1+       | 70 - 130 |
| o-Terphenyl    | 158       | S1+       | 70 - 130 |

Lab Sample ID: 880-21910-A-1-C MS

Matrix: Solid

Analysis Batch: 40551

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 40543

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0         | U *-             | 999         | 913.0     |              | mg/Kg |   | 89   | 70 - 130    |
| Diesel Range Organics (Over C10-C28) | <50.0         | U                | 999         | 1231      |              | mg/Kg |   | 123  | 70 - 130    |

|                | MS        | MS        |          |
|----------------|-----------|-----------|----------|
| Surrogate      | %Recovery | Qualifier | Limits   |
| 1-Chlorooctane | 106       |           | 70 - 130 |
| o-Terphenyl    | 119       |           | 70 - 130 |

Lab Sample ID: 880-21910-A-1-D MSD

Matrix: Solid

Analysis Batch: 40551

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 40543

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0         | U *-             | 997         | 888.3      |               | mg/Kg |   | 86   | 70 - 130    | 3   | 20        |
| Diesel Range Organics (Over C10-C28) | <50.0         | U                | 997         | 1240       |               | mg/Kg |   | 124  | 70 - 130    | 1   | 20        |

|                | MSD       | MSD       |          |
|----------------|-----------|-----------|----------|
| Surrogate      | %Recovery | Qualifier | Limits   |
| 1-Chlorooctane | 117       |           | 70 - 130 |
| o-Terphenyl    | 120       |           | 70 - 130 |

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## QC Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40371/1-A

Matrix: Solid

Analysis Batch: 40439

Client Sample ID: Method Blank

Prep Type: Soluble

| Analyte  | MB<br>Result | MB<br>Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00        | U               | 5.00 | mg/Kg |   |          | 11/28/22 20:08 | 1       |

Lab Sample ID: LCS 880-40371/2-A

Matrix: Solid

Analysis Batch: 40439

Client Sample ID: Lab Control Sample

Prep Type: Soluble

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|----------|----------------|---------------|------------------|-------|---|------|----------------|
| Chloride | 250            | 265.7         |                  | mg/Kg |   | 106  | 90 - 110       |

Lab Sample ID: LCSD 880-40371/3-A

Matrix: Solid

Analysis Batch: 40439

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

| Analyte  | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits | RPD | RPD<br>Limit |
|----------|----------------|----------------|-------------------|-------|---|------|----------------|-----|--------------|
| Chloride | 250            | 267.9          |                   | mg/Kg |   | 107  | 90 - 110       | 1   | 20           |

Lab Sample ID: 890-3548-A-5-A MS

Matrix: Solid

Analysis Batch: 40439

Client Sample ID: Matrix Spike

Prep Type: Soluble

| Analyte  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|----------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|----------------|
| Chloride | 25.5             |                     | 249            | 282.8        |                 | mg/Kg |   | 104  | 90 - 110       |

Lab Sample ID: 890-3548-A-5-A MSD

Matrix: Solid

Analysis Batch: 40439

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

| Analyte  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits | RPD | RPD<br>Limit |
|----------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|----------------|-----|--------------|
| Chloride | 25.5             |                     | 249            | 284.4         |                  | mg/Kg |   | 104  | 90 - 110       | 1   | 20           |

Lab Sample ID: MB 880-40386/1-A

Matrix: Solid

Analysis Batch: 40550

Client Sample ID: Method Blank

Prep Type: Soluble

| Analyte  | MB<br>Result | MB<br>Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00        | U               | 5.00 | mg/Kg |   |          | 11/29/22 09:19 | 1       |

Lab Sample ID: LCS 880-40386/2-A

Matrix: Solid

Analysis Batch: 40550

Client Sample ID: Lab Control Sample

Prep Type: Soluble

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|----------|----------------|---------------|------------------|-------|---|------|----------------|
| Chloride | 250            | 241.4         |                  | mg/Kg |   | 97   | 90 - 110       |

Lab Sample ID: LCSD 880-40386/3-A

Matrix: Solid

Analysis Batch: 40550

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

| Analyte  | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits | RPD | RPD<br>Limit |
|----------|----------------|----------------|-------------------|-------|---|------|----------------|-----|--------------|
| Chloride | 250            | 242.0          |                   | mg/Kg |   | 97   | 90 - 110       | 0   | 20           |

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QC Sample Results

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-21878-A-1-C MS

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 40550

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |  |  |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|--|--|
| Chloride | 16700         | F1               | 12500       | 33150     | F1           | mg/Kg |   | 132  | 90 - 110    |  |  |

Lab Sample ID: 880-21878-A-1-D MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 40550

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Chloride | 16700         | F1               | 12500       | 33850      | F1            | mg/Kg |   | 137  | 90 - 110    | 2   | 20        |

## QC Association Summary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

## GC VOA

## Prep Batch: 40625

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-3549-1         | BH01                   | Total/NA  | Solid  | 5035   |            |
| 890-3549-2         | BH01A                  | Total/NA  | Solid  | 5035   |            |
| 890-3549-3         | SS01                   | Total/NA  | Solid  | 5035   |            |
| 890-3549-4         | SS02                   | Total/NA  | Solid  | 5035   |            |
| 890-3549-5         | SS03                   | Total/NA  | Solid  | 5035   |            |
| 890-3549-6         | SS04                   | Total/NA  | Solid  | 5035   |            |
| MB 880-40625/5-A   | Method Blank           | Total/NA  | Solid  | 5035   |            |
| LCS 880-40625/1-A  | Lab Control Sample     | Total/NA  | Solid  | 5035   |            |
| LCSD 880-40625/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 5035   |            |
| 890-3549-1 MS      | BH01                   | Total/NA  | Solid  | 5035   |            |
| 890-3549-1 MSD     | BH01                   | Total/NA  | Solid  | 5035   |            |

## Analysis Batch: 40842

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-3549-1         | BH01                   | Total/NA  | Solid  | 8021B  | 40625      |
| 890-3549-2         | BH01A                  | Total/NA  | Solid  | 8021B  | 40625      |
| 890-3549-3         | SS01                   | Total/NA  | Solid  | 8021B  | 40625      |
| 890-3549-4         | SS02                   | Total/NA  | Solid  | 8021B  | 40625      |
| 890-3549-5         | SS03                   | Total/NA  | Solid  | 8021B  | 40625      |
| 890-3549-6         | SS04                   | Total/NA  | Solid  | 8021B  | 40625      |
| MB 880-40625/5-A   | Method Blank           | Total/NA  | Solid  | 8021B  | 40625      |
| LCS 880-40625/1-A  | Lab Control Sample     | Total/NA  | Solid  | 8021B  | 40625      |
| LCSD 880-40625/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 8021B  | 40625      |
| 890-3549-1 MS      | BH01                   | Total/NA  | Solid  | 8021B  | 40625      |
| 890-3549-1 MSD     | BH01                   | Total/NA  | Solid  | 8021B  | 40625      |

## Analysis Batch: 40911

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method     | Prep Batch |
|---------------|------------------|-----------|--------|------------|------------|
| 890-3549-1    | BH01             | Total/NA  | Solid  | Total BTEX |            |
| 890-3549-2    | BH01A            | Total/NA  | Solid  | Total BTEX |            |
| 890-3549-3    | SS01             | Total/NA  | Solid  | Total BTEX |            |
| 890-3549-4    | SS02             | Total/NA  | Solid  | Total BTEX |            |
| 890-3549-5    | SS03             | Total/NA  | Solid  | Total BTEX |            |
| 890-3549-6    | SS04             | Total/NA  | Solid  | Total BTEX |            |

## GC Semi VOA

## Prep Batch: 40543

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|---------------------|------------------------|-----------|--------|-------------|------------|
| 890-3549-1          | BH01                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-3549-2          | BH01A                  | Total/NA  | Solid  | 8015NM Prep |            |
| 890-3549-3          | SS01                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-3549-4          | SS02                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-3549-5          | SS03                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-3549-6          | SS04                   | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-40543/1-A    | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-40543/2-A   | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-40543/3-A  | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 880-21910-A-1-C MS  | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 880-21910-A-1-D MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

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## QC Association Summary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

## GC Semi VOA

## Analysis Batch: 40551

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 890-3549-1          | BH01                   | Total/NA  | Solid  | 8015B NM | 40543      |
| 890-3549-2          | BH01A                  | Total/NA  | Solid  | 8015B NM | 40543      |
| 890-3549-3          | SS01                   | Total/NA  | Solid  | 8015B NM | 40543      |
| 890-3549-4          | SS02                   | Total/NA  | Solid  | 8015B NM | 40543      |
| 890-3549-5          | SS03                   | Total/NA  | Solid  | 8015B NM | 40543      |
| 890-3549-6          | SS04                   | Total/NA  | Solid  | 8015B NM | 40543      |
| MB 880-40543/1-A    | Method Blank           | Total/NA  | Solid  | 8015B NM | 40543      |
| LCS 880-40543/2-A   | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 40543      |
| LCSD 880-40543/3-A  | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 40543      |
| 880-21910-A-1-C MS  | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 40543      |
| 880-21910-A-1-D MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 40543      |

## Analysis Batch: 40725

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method  | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 890-3549-1    | BH01             | Total/NA  | Solid  | 8015 NM |            |
| 890-3549-2    | BH01A            | Total/NA  | Solid  | 8015 NM |            |
| 890-3549-3    | SS01             | Total/NA  | Solid  | 8015 NM |            |
| 890-3549-4    | SS02             | Total/NA  | Solid  | 8015 NM |            |
| 890-3549-5    | SS03             | Total/NA  | Solid  | 8015 NM |            |
| 890-3549-6    | SS04             | Total/NA  | Solid  | 8015 NM |            |

## HPLC/IC

## Leach Batch: 40371

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 890-3549-1         | BH01                   | Soluble   | Solid  | DI Leach |            |
| 890-3549-2         | BH01A                  | Soluble   | Solid  | DI Leach |            |
| 890-3549-3         | SS01                   | Soluble   | Solid  | DI Leach |            |
| 890-3549-4         | SS02                   | Soluble   | Solid  | DI Leach |            |
| MB 880-40371/1-A   | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-40371/2-A  | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-40371/3-A | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 890-3548-A-5-A MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 890-3548-A-5-A MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

## Leach Batch: 40386

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 890-3549-5          | SS03                   | Soluble   | Solid  | DI Leach |            |
| 890-3549-6          | SS04                   | Soluble   | Solid  | DI Leach |            |
| MB 880-40386/1-A    | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-40386/2-A   | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-40386/3-A  | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 880-21878-A-1-C MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 880-21878-A-1-D MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

## Analysis Batch: 40439

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 890-3549-1    | BH01             | Soluble   | Solid  | 300.0  | 40371      |
| 890-3549-2    | BH01A            | Soluble   | Solid  | 300.0  | 40371      |
| 890-3549-3    | SS01             | Soluble   | Solid  | 300.0  | 40371      |
| 890-3549-4    | SS02             | Soluble   | Solid  | 300.0  | 40371      |

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## QC Association Summary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

## HPLC/IC (Continued)

## Analysis Batch: 40439 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| MB 880-40371/1-A   | Method Blank           | Soluble   | Solid  | 300.0  | 40371      |
| LCS 880-40371/2-A  | Lab Control Sample     | Soluble   | Solid  | 300.0  | 40371      |
| LCSD 880-40371/3-A | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 40371      |
| 890-3548-A-5-A MS  | Matrix Spike           | Soluble   | Solid  | 300.0  | 40371      |
| 890-3548-A-5-A MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 40371      |

## Analysis Batch: 40550

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-3549-5          | SS03                   | Soluble   | Solid  | 300.0  | 40386      |
| 890-3549-6          | SS04                   | Soluble   | Solid  | 300.0  | 40386      |
| MB 880-40386/1-A    | Method Blank           | Soluble   | Solid  | 300.0  | 40386      |
| LCS 880-40386/2-A   | Lab Control Sample     | Soluble   | Solid  | 300.0  | 40386      |
| LCSD 880-40386/3-A  | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 40386      |
| 880-21878-A-1-C MS  | Matrix Spike           | Soluble   | Solid  | 300.0  | 40386      |
| 880-21878-A-1-D MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 40386      |

## Lab Chronicle

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Client Sample ID: BH01

Lab Sample ID: 890-3549-1

Date Collected: 11/22/22 10:30

Matrix: Solid

Date Received: 11/22/22 13:47

| 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         | 40625        | 11/29/22 16:02       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 40842        | 12/02/22 12:11       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 40911        | 12/02/22 16:23       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 40725        | 11/30/22 15:50       | AJ      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.00 g        | 10 mL        | 40543        | 11/29/22 08:34       | DM      | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 40551        | 11/29/22 23:58       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.04 g         | 50 mL        | 40371        | 11/28/22 08:37       | CH      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 40439        | 11/28/22 23:08       | CH      | EET MID |

Client Sample ID: BH01A

Lab Sample ID: 890-3549-2

Date Collected: 11/22/22 11:10

Matrix: Solid

Date Received: 11/22/22 13:47

| 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         | 40625        | 11/29/22 16:02       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 40842        | 12/02/22 12:37       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 40911        | 12/02/22 16:23       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 40725        | 11/30/22 15:50       | AJ      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.01 g        | 10 mL        | 40543        | 11/29/22 08:34       | DM      | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 40551        | 11/30/22 00:23       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.95 g         | 50 mL        | 40371        | 11/28/22 08:37       | CH      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 40439        | 11/28/22 23:15       | CH      | EET MID |

Client Sample ID: SS01

Lab Sample ID: 890-3549-3

Date Collected: 11/22/22 11:15

Matrix: Solid

Date Received: 11/22/22 13:47

| 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         | 40625        | 11/29/22 16:02       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 40842        | 12/02/22 13:04       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 40911        | 12/02/22 16:23       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 40725        | 11/30/22 15:50       | AJ      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.02 g        | 10 mL        | 40543        | 11/29/22 08:34       | DM      | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 40551        | 11/30/22 00:47       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.02 g         | 50 mL        | 40371        | 11/28/22 08:37       | CH      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 5          | 50 mL          | 50 mL        | 40439        | 11/28/22 23:22       | CH      | EET MID |

Client Sample ID: SS02

Lab Sample ID: 890-3549-4

Date Collected: 11/22/22 11:30

Matrix: Solid

Date Received: 11/22/22 13:47

| 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         | 40625        | 11/29/22 16:02       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 40842        | 12/02/22 13:30       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 40911        | 12/02/22 16:23       | SM      | EET MID |

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## Lab Chronicle

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Client Sample ID: SS02

Lab Sample ID: 890-3549-4

Date Collected: 11/22/22 11:30

Matrix: Solid

Date Received: 11/22/22 13:47

| 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          |                |              | 40725        | 11/30/22 15:50       | AJ      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.01 g        | 10 mL        | 40543        | 11/29/22 08:34       | DM      | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 40551        | 11/30/22 01:13       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5 g            | 50 mL        | 40371        | 11/28/22 08:37       | CH      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 40439        | 11/28/22 23:28       | CH      | EET MID |

Client Sample ID: SS03

Lab Sample ID: 890-3549-5

Date Collected: 11/22/22 11:45

Matrix: Solid

Date Received: 11/22/22 13:47

| 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         | 40625        | 11/29/22 16:02       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 40842        | 12/02/22 13:56       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 40911        | 12/02/22 16:23       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 40725        | 11/30/22 15:50       | AJ      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.03 g        | 10 mL        | 40543        | 11/29/22 08:34       | DM      | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 40551        | 11/30/22 01:37       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.03 g         | 50 mL        | 40386        | 11/28/22 08:56       | CH      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 5          |                |              | 40550        | 11/29/22 10:57       | SMC     | EET MID |

Client Sample ID: SS04

Lab Sample ID: 890-3549-6

Date Collected: 11/22/22 12:00

Matrix: Solid

Date Received: 11/22/22 13:47

| 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         | 40625        | 11/29/22 16:02       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 40842        | 12/02/22 14:22       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 40911        | 12/02/22 16:23       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 40725        | 11/30/22 15:50       | AJ      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.01 g        | 10 mL        | 40543        | 11/29/22 08:34       | DM      | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 40551        | 11/30/22 02:02       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.04 g         | 50 mL        | 40386        | 11/28/22 08:56       | CH      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 5          |                |              | 40550        | 11/29/22 11:05       | SMC     | EET MID |

## Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

Laboratory: Eurofins Midland

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

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Texas     | NELAP   | T104704400-22-24      | 06-30-23        |

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

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

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

## Method Summary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

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

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

Sample Summary

Client: Ensolum  
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1  
SDG: 03E1558141

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Depth |
|---------------|------------------|--------|----------------|----------------|-------|
| 890-3549-1    | BH01             | Solid  | 11/22/22 10:30 | 11/22/22 13:47 | 0.5'  |
| 890-3549-2    | BH01A            | Solid  | 11/22/22 11:10 | 11/22/22 13:47 | 1'    |
| 890-3549-3    | SS01             | Solid  | 11/22/22 11:15 | 11/22/22 13:47 | 0.5'  |
| 890-3549-4    | SS02             | Solid  | 11/22/22 11:30 | 11/22/22 13:47 | 0.5'  |
| 890-3549-5    | SS03             | Solid  | 11/22/22 11:45 | 11/22/22 13:47 | 0.5'  |
| 890-3549-6    | SS04             | Solid  | 11/22/22 12:00 | 11/22/22 13:47 | 0.5'  |

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- 11
- 12
- 13
- 14



## Environment Testing

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

## Chain of Custody

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

www.xenco.com Page 1 of 2

|                  |                     |                         |                  |
|------------------|---------------------|-------------------------|------------------|
| Project Manager: | Taroma Munnissey    | Bill to: (if different) | Gerrit Green     |
| Company Name:    | Eisdun              | Company Name:           | XTO Energy       |
| Address:         | 3122 National Parks | Address:                | 3104 E Greene St |
| City, State ZIP: | Carlsbad Nn 86220   | City, State ZIP:        |                  |
| Phone:           | 937-297-8307        | Email:                  |                  |

| Work Order Comments |                                                                                                                                                                       |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Program:            | UST/PST <input type="checkbox"/> PBP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>    |
| State of Project:   |                                                                                                                                                                       |
| Reporting:          | Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> |
| Deliverables:       | EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="text"/>                                                                               |

|                                                                                      |  |  |  |                   |  |  |  |                                                                           |  |  |  |
|--------------------------------------------------------------------------------------|--|--|--|-------------------|--|--|--|---------------------------------------------------------------------------|--|--|--|
| Project Name:                                                                        |  |  |  | West Bay Fed 331H |  |  |  | Turn Around                                                               |  |  |  |
| Project Number:                                                                      |  |  |  | 032-1555141       |  |  |  | <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush |  |  |  |
| Project location:                                                                    |  |  |  | Eddy Current      |  |  |  | Due Date:                                                                 |  |  |  |
| Sampler's Name:                                                                      |  |  |  | Chris Brown       |  |  |  | TAT starts the day received by the lab, if received by 4:30pm             |  |  |  |
| PO #:                                                                                |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| SAMPLE RECEIPT                                                                       |  |  |  | Temp Blank:       |  |  |  | Yes No                                                                    |  |  |  |
| Samples Received Intact:                                                             |  |  |  | Yes No            |  |  |  | Thermometer ID:                                                           |  |  |  |
| Cooler Custody Seals:                                                                |  |  |  | Yes No            |  |  |  | Correction Factor:                                                        |  |  |  |
| Sample Custody Seals:                                                                |  |  |  | Yes No            |  |  |  | Temperature Reading:                                                      |  |  |  |
| Total Containers:                                                                    |  |  |  |                   |  |  |  | Corrected Temperature:                                                    |  |  |  |
| Parameters                                                                           |  |  |  |                   |  |  |  | Pres. Code                                                                |  |  |  |
| HL                                                                                   |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| TX                                                                                   |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| PH                                                                                   |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| 890-3549 Chain of Custody                                                            |  |  |  |                   |  |  |  |                                                                           |  |  |  |
|  |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| None: NO                                                                             |  |  |  |                   |  |  |  | DI Water: H <sub>2</sub> O                                                |  |  |  |
| Cool: Cool                                                                           |  |  |  |                   |  |  |  | MeOH: Me                                                                  |  |  |  |
| HCL: HC                                                                              |  |  |  |                   |  |  |  | HNO <sub>3</sub> : HN                                                     |  |  |  |
| H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>                                      |  |  |  |                   |  |  |  | NaOH: Na                                                                  |  |  |  |
| H <sub>3</sub> PO <sub>4</sub> : HP                                                  |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| NaHSO <sub>4</sub> : NABIS                                                           |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>                    |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| Zn Acetate--NaOH: Zn                                                                 |  |  |  |                   |  |  |  |                                                                           |  |  |  |
| NaOH+Ascorbic Acid: SAPC                                                             |  |  |  |                   |  |  |  |                                                                           |  |  |  |

[illegible]

| Circle Method(s) and Metal(s) to be analyzed | 200.8 / 6020:                                                                                                     | 200.8 / 6020:                  |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Total 200.7 / 6010                           | 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu FePb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn |                                |
|                                              | TCPL / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U                                           | Hg: 1631 / 245.1 / 7470 / 7471 |

Notice: Signature of this document without fulfillment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno 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 Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negated.

| Relinquished by: (Signature)                                                      | Received by: (Signature)                                                          | Date/Time     | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|------------------------------|--------------------------|-----------|
|  |  | 11/22/22 1347 |                              |                          |           |
|                                                                                   |                                                                                   |               |                              |                          |           |
|                                                                                   |                                                                                   |               |                              |                          |           |
|                                                                                   |                                                                                   |               |                              |                          |           |
|                                                                                   |                                                                                   |               |                              |                          |           |



Environment Testing  
Xenco

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

Chain of Custody

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

www.xenco.com Page 2 of 2

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                                                                |              |               |           |                              |     |                          |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------|--------------|---------------|-----------|------------------------------|-----|--------------------------|-----|
| Project Manager:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        | Bill to: (if different)                                        |              |               |           |                              |     |                          |     |
| Company Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | Company Name:                                                  |              |               |           |                              |     |                          |     |
| Address:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        | Address:                                                       |              |               |           |                              |     |                          |     |
| City, State ZIP:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        | City, State ZIP:                                               |              |               |           |                              |     |                          |     |
| Phone:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        | Email:                                                         |              |               |           |                              |     |                          |     |
| Project Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | Turn Around                                                    |              |               |           |                              |     |                          |     |
| Project Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        | <input type="checkbox"/> Routine <input type="checkbox"/> Rush |              |               |           |                              |     |                          |     |
| Project Location:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | Due Date:                                                      |              |               |           |                              |     |                          |     |
| Sampler's Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        | TAT starts the day received by the lab. If received by 4:30pm  |              |               |           |                              |     |                          |     |
| P.O. #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                                                |              |               |           |                              |     |                          |     |
| SAMPLE RECEIPT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        | Temp Blank: Yes No                                             |              |               |           |                              |     |                          |     |
| Samples Received intact:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        | Thermometer ID: Yes No                                         |              |               |           |                              |     |                          |     |
| Cooler Custody Seals:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        | Correction factor: Yes No                                      |              |               |           |                              |     |                          |     |
| Sample Custody Seals:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        | Temperature Reading: Yes No                                    |              |               |           |                              |     |                          |     |
| Total Containers:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | Corrected Temperature:                                         |              |               |           |                              |     |                          |     |
| Sample Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        | Parameters                                                     |              |               |           |                              |     |                          |     |
| Sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Matrix | Date Sampled                                                   | Time Sampled | Depth         | Grab/Comp | # of Cont                    | CHL | BTX                      | TPH |
| SS01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S      | 11-22                                                          | 11:15        | 1/2           | G         | 1                            | /   | /                        | /   |
| SS02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S      | 11-22                                                          | 11:30        | 1/2           | G         | 1                            | /   | /                        | /   |
| SS03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S      | 11-22                                                          | 11:45        | 1/2           | G         | 1                            | /   | /                        | /   |
| SS04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S      | 11-22                                                          | 12:00        | 1/2           | G         | 1                            | /   | /                        | /   |
| ANALYSIS REQUEST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |                                                                |              |               |           |                              |     |                          |     |
| Preservative Codes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |                                                                |              |               |           |                              |     |                          |     |
| None: NO DI Water: H <sub>2</sub> O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                |              |               |           |                              |     |                          |     |
| Cool: Cool MeOH: Me                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                |              |               |           |                              |     |                          |     |
| HCL: HCl HNO: H <sub>2</sub> NO <sub>3</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                                                                |              |               |           |                              |     |                          |     |
| H <sub>2</sub> SO: H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |                                                                |              |               |           |                              |     |                          |     |
| H <sub>3</sub> PO: H <sub>3</sub> PO <sub>4</sub> HP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |                                                                |              |               |           |                              |     |                          |     |
| NaHSO: NaHSO <sub>4</sub> NABIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                                                                |              |               |           |                              |     |                          |     |
| Na <sub>2</sub> S <sub>2</sub> O: Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NASO <sub>3</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                |              |               |           |                              |     |                          |     |
| Zn Acetate+NaOH: Zn                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                |              |               |           |                              |     |                          |     |
| NaOH+Ascorbic Acid: SAPC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                |              |               |           |                              |     |                          |     |
| Sample Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                                                                |              |               |           |                              |     |                          |     |
| Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                |              |               |           |                              |     |                          |     |
| Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                |              |               |           |                              |     |                          |     |
| Note: 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 \$3 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) |     |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | Amanda Stutz                                                   |              | 11/22/22 1347 |           | 4                            |     | 6                        |     |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                |              |               |           |                              |     |                          |     |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                |              |               |           |                              |     |                          |     |



Eurofins Carlsbad

1089 N Canal St.  
Carlsbad NIM 88220  
Phone 575-988-3199 Fax 575-988-3199

## Chain of Custody Record



**eurofins**

## Environment Testing

[illegible]



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3549-1

SDG Number: 03E1558141

Login Number: 3549

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

| Question                                                                         | Answer | Comment                             |
|----------------------------------------------------------------------------------|--------|-------------------------------------|
| The cooler's custody seal, if present, is intact.                                | True   |                                     |
| Sample custody seals, if present, are intact.                                    | True   |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.   | True   |                                     |
| Samples were received on ice.                                                    | True   |                                     |
| Cooler Temperature is acceptable.                                                | True   |                                     |
| Cooler Temperature is recorded.                                                  | True   |                                     |
| COC is present.                                                                  | True   |                                     |
| COC is filled out in ink and legible.                                            | True   |                                     |
| COC is filled out with all pertinent information.                                | True   |                                     |
| Is the Field Sampler's name present on COC?                                      | True   |                                     |
| There are no discrepancies between the containers received and the COC.          | True   |                                     |
| Samples are received within Holding Time (excluding tests with immediate HTs)    | True   |                                     |
| Sample containers have legible labels.                                           | True   |                                     |
| Containers are not broken or leaking.                                            | True   |                                     |
| Sample collection date/times are provided.                                       | True   |                                     |
| Appropriate sample containers are used.                                          | N/A    | Refer to Job Narrative for details. |
| 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: 890-3549-1

SDG Number: 03E1558141

Login Number: 3549

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 11/23/22 11:54 AM

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



## APPENDIX D

### NMOCD Notifications

---

**From:** [Green, Garrett J](#)  
**To:** [Tacoma Morrissey](#)  
**Subject:** FW: XTO - Sampling Notification (Week of 11/21/22 - 11/25/22)  
**Date:** Friday, November 18, 2022 3:38:40 PM

---

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

---

**From:** Green, Garrett J  
**Sent:** Friday, November 18, 2022 8:52 AM  
**To:** 'ocd.enviro@emnrd.nm.gov' <ocd.enviro@emnrd.nm.gov>; 'Bratcher, Michael, EMNRD' <mike.bratcher@emnrd.nm.gov>; 'Hamlet, Robert, EMNRD' <Robert.Hamlet@emnrd.nm.gov>; 'Harimon, Jocelyn, EMNRD' <Jocelyn.Harimon@emnrd.nm.gov>  
**Cc:** DelawareSpills /SM <DelawareSpills@exxonmobil.com>  
**Subject:** XTO - Sampling Notification (Week of 11/21/22 - 11/25/22)

All,

XTO plans to complete final sampling activities at the following sites the week of Nov 21, 2022.

- JRU 17 CTB/ nAPP2226628060
- BEU 158 / nAPP2230548752
- Ross Draw 2531 TB FIRE/ nAPP2226646920
- Remuda 100 CTB / nAPP2226346738
- West Brushy Fed 33 1H/ nAPP2228753314
- Ross Draw 3031/ nAPP2227244441

Thank you,

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

XTO Energy, Inc.  
3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

**Collins, Melanie**

---

**From:** OCDOnline@state.nm.us  
**Sent:** Friday, November 18, 2022 3:25 PM  
**To:** Collins, Melanie  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 160139

**Categories:** External Sender

**External Email - Think Before You Click**

To whom it may concern (c/o Melanie Collins for XTO ENERGY, INC),

The OCD has accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2232251876, with the following conditions:

- **When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2232251876, on all subsequent C-141 submissions and communications regarding the remediation of this release.

**NOTE:** As of December 2019, NMOCD has discontinued the use of the “RP” number.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

ocd.enviro@state.nm.us

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**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 171202

CONDITIONS

|                                                                                 |                                                               |
|---------------------------------------------------------------------------------|---------------------------------------------------------------|
| Operator:<br><br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:<br><br>5380                                            |
|                                                                                 | Action Number:<br><br>171202                                  |
|                                                                                 | Action Type:<br><br>[C-141] Release Corrective Action (C-141) |

CONDITIONS

| Created By | Condition                                                                                                                                                  | Condition Date |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| rhamlet    | We have received your closure report and final C-141 for Incident #NAPP2228753314 WEST BRUSHY FED 33 1H TANK BATTERY, thank you. This closure is approved. | 4/5/2023       |